



REPORT OF THE COMMITTEE ON UNEMPLOYMENT

MAY 1973

GOVT. OF INDIA MIN. OF LABOUR & REHABILITATION
(DEPTT. OF LABOUR & EMPLOYMENT)



अध्यक्ष
CHAIRMAN



भारत सरकार
बेरोजगारी सम्बन्धी विशेषज्ञ समिति
विज्ञान भवन एनेक्सी
नई दिल्ली
GOVERNMENT OF INDIA
COMMITTEE ON UNEMPLOYMENT
VIGYAN BHAVAN ANNEXE
NEW DELHI
May 15, 1973.

Dear Shri Reddy,

I am presenting herewith the Report of the Committee on Unemployment. It will be recalled that our Interim Report on Some Short-term Measures for Employment was presented to your predecessor on 12th February, 1972.

2. During the deliberations of the Committee, we received valuable assistance and cooperation from our former colleagues who at one stage or the other were associated with us in the working of the Committee but who, owing to the changes in the incumbency of the posts which they held, were not able to continue their association with us upto the concluding stages of our work. I am availing myself of this opportunity of recording my thanks to them for the cooperation and assistance extended by them.

3. Further, I would take this opportunity of recording my gratitude to Shri V. L. Gidwani, my colleague on the Committee, who has during the last many months placed at our disposal all the knowledge, wisdom and experience gathered by him in the course of his long career in the public service and has most ungrudgingly and unsparingly devoted his time and energy to assist us in the preparation of our report. My colleagues on the Committee and I are conscious of our deep sense of obligation to him for his devoted services.

4. Two of our Members, Dr. Manmohan Singh, Chief Economic Adviser, Ministry of Finance, New Delhi and Shri N. V. Krishnan, Development Commissioner, Government of Madhya Pradesh, were appointed Members of the Committee in March, 1973 only. Shri Krishnan has not, unfortunately, been able to attend any of the meetings of the Committee because he has been, I understand, on deputation outside the country. Dr. Manmohan Singh wrote to me in April last stating that since he became a Member only in March this year, he had not had an opportunity of taking part in any of the discussions which preceded the preparation of the draft Report. He therefore, asked for being relieved of the membership of the Committee. In these circumstances, these two Members have not joined in signing this Report.

Yours sincerely,

B. Bhagavati

(B. Bhagavati)

Shri K. V. Raghunatha Reddy,
Minister for Labour & Rehabilitation,
NEW DELHI.

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CHAPTER I

INTRODUCTION

1.1 The problem of unemployment and under-employment in the country has been causing serious concern to the Government in recent years. Great concern was expressed in Parliament and outside at the deteriorating situation in the country in respect of unemployment, particularly in the wake of the unprecedented severe droughts of 1965-66 and 1966-67, and of the subsequent serious industrial recession which afflicted the economy during two years (1966-68). During discussions on a non-official resolution brought by Shri Jyotirmoy Bosu, MP in the Lok Sabha in November, 1969 the Government of India indicated its intention to appoint a committee to assess the extent of the problem in all its dimensions and facets and to suggest suitable remedial measures.

Appointment of the Committee and its Terms of Reference

1.2 The Committee was accordingly appointed by the Government of India with the Department of Labour and Employment Resolution No. MP-10(110)/69, dated the 19th December, 1970 to assess the extent of unemployment and under-employment and to suggest remedial measures. The initial composition of the Committee is indicated in the aforesaid Government Resolution. The initial composition of the Committee underwent some change as a result of the addition of a few Members of Parliament to the Committee and further changes were necessitated from time to time owing to the changes in the incumbancy of the post which a member of the Committee held. A copy of the Government Resolution dated 19th December, 1970 giving the original composition of the Committee as well as a statement indicating its composition during the concluding stages of its work are given in Appendix I.

1.3 The terms of reference of the Committee were as follows:—

- (i) To assess the extent of unemployment and under-employment in all its aspects, taking into account the recommendations made by the Committee of Experts on Unemployment Estimates set up by the Planning Com-

mission under the chairmanship of Prof. M. L. Dantwala;

- (ii) to recommend the directions in which the programmes included in the Fourth Five Year Plan could be made more employment oriented in their implementation, with due regard to their timely execution, economy and productivity and to the requirements of rapid economic development;
- (iii) to suggest suitable strategies for employment generation, both short-term and long-term, including technical, financial and fiscal measures in respect of different sectors of the economy, taking into account the mobility of labour and the openings for employment and self-employment in the tertiary sector as a result of implementation of Plan programmes and various measures initiated by the Government for activating the economy;
- (iv) to suggest specific programmes for promoting productive employment and self-employment of the educated unemployed in general and the unemployed technical personnel such as engineers, technicians, etc. in particular and to suggest measures to rectify the imbalance between the out-turn of educated and technical persons on the one hand and the available employment opportunities on the other; and
- (v) to suggest a suitable machinery at the Centre and state level for a continuous appraisal of the changing employment and manpower situation and assessment of long-term demand and supply.

1.4 In regard to term of reference of the Committee at item (ii) above, it was felt that by the time the Committee could submit its recommendations, the fourth year of the Fourth Plan (1972-73) might be over and as such the recommendations made in respect of this term of reference would lose much of their relevance. It was, therefore, felt that the Committee's final recommendations and suggestions in respect of the Plan schemes could be more appropriately

related to the programmes to be included in the Fifth Plan. It was, therefore, suggested to Government in a communication addressed by the Committee that the recommendations in respect of item (ii) of its term of reference of the Committee should be in relation broadly to the Fifth Plan and not to the Fourth Plan. In reply we were *informed by the Government as follows:—

“In our view, it is not necessary to add to or alter the second term of reference of the Committee. In so far as the Fifth Plan is concerned, the Committee’s contributions would seem to lie in the terms of reference (iii) and (iv)”.

Preliminaries—Suggestions invited from the citizens through Press Notices

1.5 Though the Committee was constituted towards the closing days of December, 1970 it could not get off to a start earlier than April, 1971 due to several circumstances beyond its control. In the initial stages of its work it had to encounter a number of handicaps and difficulties in obtaining its basic requirements and facilities like suitable office accommodation, essential secretariat staff, etc. The issue of the necessary financial and administrative authorisations was also delayed owing mainly to the intervention of the mid-term elections in February-March, 1971. The accommodation for the secretariat of the Committee was secured towards the end of April, 1971 while the sanction for the greater part of the complement of the officers and staff was also received about the same time. Some procedural formalities had to be gone through and other difficulties overcome before the services of suitable technical personnel could be obtained: a part of the delay also arose from the shortage of the senior officers of requisite standing. In consequence it was possible to have in position most of the senior technical personnel only by the beginning of October, 1971.

1.6 The Committee, however, commenced its work shortly after its constitution, its initial meetings being held on the 11th January, 1971 and again on the 27th and the 28th January 1971. At these meetings certain preliminaries as also the procedures to be followed were discussed.

Shortly afterwards, public notices were issued through the Press inviting the views, comments and suggestions from individuals, organised bodies, associations, etc. on the unemployment problem in India. These

notices were published in the leading national and regional papers of the country and were widely publicised by repetitive publication in the months of March, May and June, 1971. In response to these notices a large number of communications and memoranda numbering about 1,600 was received from individuals working in various walks of national life and drawn from different parts of the country and from the organisations representing various interests and sections of the community.

Issue of Questionnaires

1.7 The Committee set out at an early stage to finalise its questionnaires which were embodied in two documents (entitled Questionnaire No. I and Questionnaire No. II) copies of which are placed at Appendix II. Questionnaire I was intended to elicit the views and comments on various issues arising out of the terms of reference of the Committee from a very wide spectrum of the community like the political parties, trade unions, chambers of commerce, employers’ organisations, universities, etc. and from individuals having wide experience and knowledge of the problem. The other questionnaire (Questionnaire II) sought to elicit information and data on particular points and issues from the ministries/other organisations of the Central Government, the State Governments and the Administrations of Union Territories. With a view to giving an opportunity to the authorities and officers working at the field level to express their views, we forwarded this questionnaire also to all collectors, the block development officers, the heads of zila parishads etc. The response to these questionnaires was very encouraging and as many as 494 replies were received to Questionnaire I.

Liaison Arrangement

1.8 In view of the imperative need for a smooth flow of information, data, etc. from the ministries of the Central Government, the State Governments, Union Territory Administrations, etc., we requested each of them to nominate a senior officer to act as liaison officer for our work. These liaison officers were of great assistance to us in making available to us the requisite information and data and in supplying the material required by us from time to time. The liaison officers of the State Governments in particular assisted us by making arrangements for our visits to the states’ headquarters and other places in the states for discussions

*Department of Labour & Employment letter No. EEI-200(10)/72, dated the 27th September, 1972.

aid for visits to the sites of employment oriented programmes, industrial units (both large scale and small scale), industrial areas and estates, etc., and by organising our programme of discussions with the officials of the State Governments and various sections of the community.

Working Groups and Panel

1.9 As an integral part of the procedures of work devised by us, it was felt that the various issues of great complexity and wide coverage encompassing the economic, financial and technical spheres and the matters relating to agriculture, educational policy, industry, etc. would have to be studied and examined in depth and the experts and knowledgeable persons in the various disciplines kept associated with the studies. The latter step would enable the Committee to obtain the benefit of the expertise of many distinguished persons having specialised knowledge and experience of various fields of economic activity. We accordingly constituted one Panel and five Working Groups composed of the experts and knowledgeable persons from various walks of life, namely, the Central and State Governments, organised industry, universities and other learned bodies, etc., to make enquiries and undertake a study in depth of the various issues referred to us for consideration by the Government. The composition of the Working Groups and the Panel is indicated in the list at Appendix II. Their studies and suggestions proved to be very useful to the Committee in examining the various issues and finalising its recommendations.

Discussions with leaders of Government, both Central and State, and other knowledgeable persons

1.10 As an important part of its work, the Committee decided to have discussions with the high dignitaries of the State, the leading members of the Government, the leaders of parliamentary parties and groups and other parliamentarians at the Centre with a view to having the benefit of their experience and thinking on the subject, and their views and suggestions on the various facets of the problem. The President, the Vice-President and the Prime Minister very kindly spared some of their valuable time for meeting the Committee and giving it the benefit of their mature thinking on the subject. The Committee also had the benefit of discussions with the Union Ministers of Defence, Planning, Agriculture, Shipping and Transport, Health and Family Planning,

and the Ministers of State for planning and Irrigation and Power. A number of leaders of parliamentary parties and groups and of political parties responded to our invitation to have discussions with us. A list of these is given at Appendix IV.

1.11 In order to make an on-the-spot study and to ascertain the views and obtain the suggestions of various sections of the community in the country, the Committee decided to pay visits to the States for discussions both at the headquarters of the State Government and at other convenient centres in the States. In all, the Committee visited 15 States including the union Territory of Delhi. During the visits, the Governors of some of the States responded to its request and readily gave it the benefit of their views and suggestions. In the States the Committee had discussions with the State Ministers (including the Chief Ministers in some cases), senior officers of the State Governments and a number of persons from various walks of life, e.g. the leaders of political parties, members of the State legislatures and other prominent persons from technical fields and from the world of trade, industry, commerce, trade unions, etc. The committee was thus able to ascertain the views and comments of a considerable section of the community on the various issues relating to or having a bearing on the employment problem and on its various facets. A list of the states visited along with the dates of such visits is placed at Appendix V.

Field Studies

1.12 At an early stage of our work, it was felt that it would be desirable to form an idea of the impact of some of the recent programmes like rural electrification, minor irrigation, the special programmes like Small Farmers Development Agency (SFDA), the Marginal Farmers and Agricultural Labour Agency (MFAL), the Crash Scheme for Rural Employment (CSRE), etc., on the generation of employment in rural areas and to have first-hand and latest data about the incidence of unemployment in a disaggregated form, i.e. as affecting the various sections, age groups, etc. The Committee, therefore, decided to get special studies conducted through universities and other agencies on these subjects. Accordingly, seven studies were entrusted to such agencies—two to the University of Calcutta, one each to the Universities of Kerala, Dibrugarh and Gauhati and two to the Administrative Staff College, Hyderabad. A list of these studies along with the names of the institutions to whom these were entrusted is given in Appendix VI.

Interim Report

1.13 The information and data received by the Committee as also the discussions it held with a large number of persons, both at New Delhi and in the States brought to the fore certain aspects of the unemployment problem. We formed the impression that quite apart from open unemployment, which was severe in certain areas, the incidence of under-employment involving both seasonal and insufficient employment, was very high. We were greatly concerned at the magnitude of the problem and felt that there was pressing and urgent need for some remedial measures. We, therefore, submitted our Interim Report in February, 1972 spelling out a few short-term measures for being implemented during the last two years of the Fourth Plan in order to alleviate, to some extent, the hardship and suffering caused by unemployment and under employment. A copy of the Interim Report is placed at Appendix VII.

International Assistance—Joint Workshop on Employment Generation

1.14 The International Labour Organisation (ILO) has taken a keen interest in the work of this Committee since its inception. As is well known, this Organisation has sponsored a programme entitled "The World Employment Programme" with a view to assisting the participating countries in promoting increasing employment as an objective of planned development on par with the growth of national output, and in working out measures by which this goal could be attained by national policies supplemented by international action. Shortly after the setting up of the Committee, the ILO assured us of their whole-hearted assistance in carrying out the task entrusted to us. In subsequent discussions their representatives made a welcome offer to collaborate with the Committee in organising a workshop and indicated that the members of the inter-disciplinary team of experts located at Bangkok under the ARTEP (the Asian Regional Team for Employment Promotion) would collaborate and assist in all ways including direct participation in the workshop discussions. After careful consultation between the Government of India, the ILO and the Committee, it was decided that a Joint Workshop on Employment Generation should be organised in New Delhi to assist the Committee in thrashing out the various facets of some of the issues before it. This Joint Workshop was accordingly organised in New Delhi from the 2nd to 7th August, 1972 and the following

four topics were selected for consideration by the Workshop :—

- (i) Specific fiscal and financial measures for promoting employment through industrialisation.
- (ii) A strategy for the development of full employment potential of large industrial complexes in India.
- (iii) Levels of technology in agriculture and employment with particular reference to dry farming areas and small holdings.
- (iv) The educational system and employment promotion vocationalisation of education, linking it to job opportunities.

1.15 For this workshop, the participants from India were drawn from amongst the members of the concerned Working groups set up by the Committee and experts from some research organisations, senior officers of the Central Ministries and some State Governments, etc. The participants from the ILO included four consultants, one for each of the topics selected for discussions, some members of the Asian Regional Team for Employment Promotion (ARTEP) and a few officers from the ILO headquarters at Geneva and their Area Office in New Delhi. The papers prepared for the Joint Workshop including the working papers prepared by the ILO experts, the deliberations of the four Discussion Groups organised by the Workshop and the conclusions of the Workshop have been of great assistance to the Committee.

Cooperation from the Press

1.16 From the very beginning, the Committee maintained liaison with the Press, in order that there might be a better awareness in the country of the task entrusted to the Committee. During the Course of its itinerary in the country, the Chairman held press conferences at various places to keep it apprised with regard to the progress of the Committee's work, its future programme, etc. We wish to record our satisfaction at the measure of cooperation received from the Press in the functioning of the Committee.

Chapter Design

1.17 This report of the Committee is divided into 11 chapters. In Chapter I, after giving some background information regarding the appointment of the Committee and its composition and terms of reference, we give an outline of the procedures and methods of

enquiries of the Committee, personal discussions with the dignitaries of the Central and State Governments, visits to States, etc. and also make our acknowledgements. We proceed to give in Chapter II, a brief historical review of the problem of unemployment in the country from the attainment of independence in 1947 along with an indication in general terms of the position of unemployment obtaining in the years immediately preceding the appointment of the Committee. In the next chapter, namely Chapter III, we discuss some basic issues which are relevant to, and which necessarily arise in connection with the consideration of the problem of unemployment. The important issues of the extent of unemployment and under-employment in the country, as required by our first term of reference, is dealt with, and our assessment of the position given, in Chapter IV. In Chapter V we are making a brief review of the working of some of the more important employment oriented programmes currently under execution and then discuss some of the important plan programmes in a number of sectors (other than agriculture, industry and education), which have, comparatively speaking, greater employment potential. The next chapter, namely Chapter VI, outlines some of the important strategies and policy measures for employment generation in the long-term. This chapter is divided in two parts: Part A—Fiscal and Financial Measures, which should be adopted as part of the long-term strategy; and Part B—Some Other Measures, which deals with issues like population planning, etc. In the succeeding three chapters, namely Chapter VII (Agriculture and Allied Occupations), Chapter VIII (Industry), and Chapter IX (Education and Training), we propose to discuss some of the more important programmes falling under the sectors of agriculture, industry and education respectively and also make our suggestions and recommendations which are expected to generate more employment in these sectors. Thereafter in Chapter X we proceed to outline our suggestions regarding a suitable machinery at the Central and State levels for a continuous appraisal of the changing employment and manpower situation and for assessment of long-term demand and supply, as required by our fifth term of reference. Finally, our main conclusions and recommendations outlined in various chapters have been summarised and collated in the last chapter of the report, namely Chapter XI.

1.18 This sequence of chapters has been designed broadly in the same order as the terms of reference of the Committee, as it has been our intention to deal *seriatim* with the

various issues incorporated in them and referred to us for our enquiry and study.

Acknowledgements

1.19. In the course of its enquiries and studies the Committee have received unstinted cooperation and valuable assistance from a large number of individuals, organisations and bodies. We avail ourselves of this opportunity to express our gratitude to all of them for the assistance and help given. As mentioned earlier, the Committee has had the benefit of discussions with the President and the Vice-President of India and the Prime Minister having vast experience of public affairs and deep knowledge of the problem of unemployment. They greatly enlightened the Committee with their views, comments and suggestions which were very inspiring and thought-provoking and opened up fresh vistas of thought and views on many of the issues involved. We are deeply grateful to them for this. The Committee takes this opportunity of expressing its deep appreciation of the cooperation extended by the Union Ministers and the Ministers of State, the leaders of parliamentary parties, the parliamentarians as well as the leaders of other political parties.

1.20 The Committee also wishes to express its gratitude to the officials of the Department of Labour and Employment, Government of India, who extended all assistance and cooperation to the Committee in its task. In particular, the Committee are thankful to Shri K. V. Raghunatha Reddy, Union Minister of Labour & Rehabilitation, and Shri R. K. Khadilkar, former Union Minister of Labour and Rehabilitation, now Union Minister for Health & Family Planning and Shri P. M. Nayak, Secretary. The various ministries and departments of the Central Government extended cooperation and assistance to us and supplied us data and material. The Committee are thankful to them and in particular to the Planning Commission, the Ministries of Industrial Development, Agriculture (including the Directorate of Economics and Statistics) and Education, the Directorate of Manpower, the Institute of Applied Manpower Research, the Cabinet Secretariat (Employment and Manpower Cell), the Central Statistical Organisation, the National Sample Survey Organisation and the Registrar General & the Census Commissioner.

1.21 We have already mentioned earlier that the International Labour Organisation has taken a keen interest in the work of this Committee since its inception and at the very initial stages it offered us whole-hearted assistance in carrying out the task entrusted to the

Committee and later collaborated with us in organising the Joint Workshop, the deliberations of which have been of great assistance to us in our studies of the various issues. We would like to place on record our sense of appreciation of the cooperation and assistance extended to us by the International Labour Organisation and to the Regional Director and his officers and staff of the ILO's Area Office at New Delhi.

1.22 The Committee are grateful to all State Governments and Administrations of Union Territories for giving us the benefit of their views and suggestions both in response to the Committee's questionnaires and during the course of the Committee's visits to various places in the country.

1.23 During the course of its visits to the States the Committee had the occasion to meet some of the Governors, Chief Ministers, Labour and other Ministers who gladly spared their time to have discussions with us. The liaison officers of the State Governments, the representatives of the various organisations like the employers' organisations, chambers of commerce, trade unions, universities and other learned bodies extended their cooperation to us ungrudgingly, supplied material and data to us and responded to our invitations for discussions with them. The State Governments took pains in making arrangements for our discussions at their headquarters and at other convenient places and afforded us all necessary facilities. We are thankful to them for all the assistance rendered. In particular, we are grateful to the Labour Secretaries and other officers of the State Governments on whom devolved the responsibility of making arrangements for our programme of visits.

1.24 In addition, we received in the performance of our task valuable suggestions and comments from a large number of individuals, organised bodies and associations, like chambers of commerce, employers' organisations, trade unions, universities, other learned bodies, etc. A large number of them took the trouble of sending us their views and suggestions in response to our public notices and many of them responded to our invitation to have discussions with us and gave us the benefit of their views on various issues relating to unemployment. We received valuable cooperation and assistance from a number of departments of the Central and State Governments and from individual officers. We take this opportunity of expressing to each and all of them our thanks for the assistance rendered by them in our enquiries and studies

1.25 The Committee wishes specially to express its deep sense of gratitude to the Chairmen and Members of the Panel and the five Working Groups who, at great cost of their time, agreed to serve on these groups and have studied the various issues referred to them with great care and have favoured us with their valuable reports. As mentioned earlier we have been very greatly benefited by these reports. We would also like to express our appreciation of the studies undertaken on our behalf by some of the universities and other bodies and of the useful reports prepared by them.

1.26 The Secretariat of the Committee has throughout shouldered a very heavy responsibility in connection with the work of the Panel and Working Groups, the Joint Workshop on Employment Generation and the preparation of our interim and final Reports. We would specially like to place on record our appreciation of the valuable services rendered to us and the excellent work done by Shri N. S. Pandey, Member-Secretary of the Committee who has borne the brunt of the work devolving on the Secretariat. His long and varied administrative experience and association with the various ministries of the Government of India have been a great asset to us in the performance of our task. His wide knowledge and deep understanding of the various complex issues with which the Committee had to deal were a source of great strength. In particular the arduous and painstaking work extending over many months put in by Shri Pandey in marshalling facts and figures and carrying out the suggestions made and the views expressed by the Committee have been of immense assistance to the Committee. We feel that without his unremitting industry, indefatigable energy, initiative and drive, we would not have been in a position to complete our task in good time.

1.27 We have pleasure in acknowledging the services rendered by our Senior Officers of the Secretariat, namely, the Directors, Shri H. R. Sharma, Dr. V. Agnihotri and Shri B. N. Nair, Miss F. K. Wadia, Joint Director and Shri T. C. George, Deputy Director. They shouldered heavy responsibilities in preparing the background material papers and statistics required by the Committee, the Joint Workshop on Employment Generation and the working groups and assisted the Committee in preparing reports with competence. They were ably assisted by their Senior Research Officers, Sarvashri P. K. Srinivasan, B. D. Nakra, S. N. Srivastava, H. K. Chawla, L. R. Dua, R. K. Bhandari and M. L. Trikha, whose services also we wish

to acknowledge. The task of organising the programmes of the Committee and making arrangements for its tour and its meetings, preparing the record of the meetings and running the administration of the Committee's secretariat was ably performed by Shri T. K. Ramachandran, Under Secretary who was greatly assisted in this task by Shri R. P. Jaiswal, Research Officer and Shri R. P. Shrivastava, Officer on Special Duty, and our cordial thanks are due to them.

1.28 We would like to express our thankfulness to Shri D. S. Sinha, Private Secretary, Shri Prem Gopal Mathur, First P. A. to Chair-

man and Shri V. N. Aiyer, Senior Personal Assistant to the Member Secretary who discharged their duties in an able and conscientious manner.

1.29. We also place on record our appreciation of the painstaking work put in and devotion to duty displayed by all the other members of the Secretariat—Section Officer, Personal Assistants and Stenographers, Assistants, Investigators, Computers, Clerks, Gestetner Operator and class IV staff without whose co-operation the task entrusted to us could not have been completed according to schedule.

CHAPTER II

BACKGROUND OF THE PROBLEM

2.1 Unemployment and under-employment constitute some of the major economic and social problems of the country today. In the agricultural sector, the growing labour force finds itself working increasingly at low levels of productivity on the limited land resources. As a result, the capacity of this sector to absorb additional labour has become progressively attenuated. The rural labour force suffers, therefore, from severe under-employment, and considerable sections live in acute poverty, picking up seasonal employment wherever available, or trek to the urban areas in search of work and food. On the other hand, the overcrowded industries and occupations in the private sector as well as the over-staffed public offices in the burgeoning cities do not provide much employment to the swelling crowds of migrants. The deceleration in the expansion of our industrial and secondary sectors, which was always limited and somewhat slow of growth, has resulted in a contraction of the employment opportunities in these sectors. This has had inevitably a dampening effect on the related tertiary sector where also the rate of growth of employment has, during the recent past, declined. Technological changes in some of the urban occupations like industry, trade, commerce and in public offices not only reduce the rate of absorption of new labour but also involve the displacement of some labour, thereby increasing the number of the unemployed. The problem has been growing more acute due to the ever-increasing size of the labour force and the rapid expansion of education resulting in a larger proportion of the vocal educated section among the unemployed.

2.2 The problem of unemployment has assumed serious dimensions and threatens to become larger and more acute in the coming years. Because of the human suffering involved, and the sense of frustration and the tensions in society which it breeds, unemployment is pregnant with the potential danger of creating difficulties in regard to law and order, and engenders social and political unrest and other concomitant problems. The magnitude of the problem accentuates the difficulties of the Government in providing

relief, absorbing the abundant and under-utilised human resources and bringing about a general increase in the material well-being of the population. This problem has been with us since ages, though fluctuating in size and intensity. It affects most acutely the population in rural areas where under-employment has been endemic; its incidence has been influenced by several factors such as the increase in population, the varying pace of economic growth, the unequal development of the different sectors of the economy — primary, secondary and tertiary — the rate of national savings and investment, etc.

2.3 A bird's-eye view of the developments in the country's economy and the general situation in respect of employment since Independence would indicate that the problem of unemployment in its more vocal and visible form and affecting, in particular, the educated and technically qualified persons, has assumed serious dimensions from about the middle of the sixties. During the British regime, India was a preponderantly agricultural country with a largely non-monetised economy and an overwhelmingly rural population; industrialisation in the country was confined by and large to a few industries like cotton and jute textiles which were established in a few centres. The great depression of the thirties which was of unprecedented severity and which spread like wild fire engulfing the world, had a severe impact on India which was essentially a producer of primary commodities and whose economy had remained very much undeveloped and already impoverished. It caused particular hardship and suffering to the vast masses of the population who were leading a marginal existence at subsistence levels, heavily dependent on agriculture and a limited number of occupations. It also had a severe impact on the educated class which was growing in numbers, owing to the spread of western education. The outbreak of the second World War (1939-45) resulted in some quickening of activity in certain sectors of the economy, particularly for meeting the demands created by war operations. This led to increased production by the existing industrial units as well as to the setting up of a number of new industries. Due to the increased economic activity, there was considerable growth

of employment opportunities. Simultaneously, however, prices also rose sharply during this period, resulting in the scarcity of essential commodities including foodgrains and the growth of a flourishing black market, despite the efforts made by Government to regulate prices through controlled supply of essential goods, rationing, etc. In these circumstances, while certain classes of the community like industrialists, war contractors, hoarders, speculators, etc., made large windfall gains, the masses of the people had to undergo severe privations and economic hardships.

2.4 The termination of the hostilities was followed shortly afterwards by the attainment of independence, which was accompanied by the partition of the country with its holocaust of large scale killings and the uprooting and exodus, on a mass scale, of millions of persons across the frontiers, particularly from the border provinces. The migration of a large number of displaced people into India called for the adoption of measures, on a massive succour and relief to these persons. It called for the provision of food and shelter as measures of immediate relief, but also for the provision of job opportunities and of occupations for their permanent absorption in gainful economic activities. In brief, as a result of the problems arising due to the termination of hostilities and in the wake of the partition of the country, there came to the fore the problems of providing employment not only to the large number of demobbed military and civilian personnel of the defence forces, but also to the huge masses of displaced persons from the areas comprising Pakistan who migrated into the country in tragic circumstances. The acuteness and severity of the problem of absorbing such a large number of persons were, however, reduced to some extent, partly because of the economic and industrial boom which the country was experiencing during the post-war years, and partly due to the steady expansion in the governmental activities which had taken place during the war and was continuing during the post-war years and which increased to a considerable extent opportunities for employment in the public sector. Also, the setting up of new industries, the accelerated pace of industrialisation and the consequent expansion of tertiary activities helped considerably in creating opportunities for employment in the economy.

2.5 The setting up of the Planning Commission early in 1950 and the launching of the First Five Year Plan in April, 1951, marked the beginning of planned economic development in the country. However, even prior to that, the question of formulating plans for the economic reconstruction of the country had been taken up by the Interim Government soon after its assumption of office in 1946, when it set up an Advisory Planning Board. This Board came to the conclusion that a Planning Commission should be constituted at the Centre to devote itself continuously to the entire field of planning and economic reconstruction of the country. Meanwhile, however, as mentioned in the preceding paragraph, the partition of the country in 1947 had brought in its wake mass killings and large scale migration of displaced persons into the country, giving rise to immense problems regarding their relief and rehabilitation. Planned economic development on an organised basis could therefore be taken in hand only in April 1951 when the First Five Year Plan was launched.

It was expected at that time that adequate employment would be generated from the implementation of the development programmes envisaged in the Plan. Overt unemployment was not then considered to be so serious as to necessitate any special measures in the formulation of the Plan itself; it was assumed that such unemployment would taper off with the implementation of the Plan which was designed to increase the gross national product. With the emphasis laid in the First Plan on agricultural development, the unemployment situation in the rural areas was also expected to be contained. By about the middle of 1953, however, signs of increasing unemployment in the urban areas began to manifest themselves and this problem became a matter of some concern to the Government. There were indications of a worsening of the situation in the employment market through the data provided by the national employment service. The need was felt of enlarging the size of the Plan by incorporating some schemes designed to generate additional employment; these additional schemes involved an outlay of Rs. 309 crores.*

2.6 In the Second Five Year Plan document, the expansion of employment opportunities was clearly specified as one of the main objectives of the Plan. A regular appraisal

* *Review of the First Five Year Plan*, Government of India, Planning Commission, May 1957.

of the unemployment position was undertaken while formulating the Plan and an endeavour was made to estimate the backlog of unemployment, the additions to the labour force during this period and the employment likely to be generated by the Plan programmes. What was sought to be achieved under the Plan was the absorption of as many as possible of the growing numbers in the labour force at suitable levels of income, without jeopardising the building up of a wider base for the growth of the economy in the future. It was estimated that there would be a backlog of unemployment of 5.3 million persons at the beginning of the Plan and that the labour force would increase by about 11.7 million persons in the period between 1956 and 1961. The employment potential estimated to be created by the Plan programmes was around 10 million job opportunities so that at the end of the Plan period, the backlog of unemployed would be about 7 million. The employment generated as a result of the Second Plan was however later estimated at about 8 million jobs and in consequence of the shortfall in job creation, the backlog was revised upwards.

2.7 Thus by the beginning of 1961, the backlog of unemployment was estimated to be around 9 million persons. However, the picture differed widely among the different categories of job-seekers. Along with the growing surpluses in the supply of educated persons with general education, shortages of certain categories of skilled personnel existed in nearly all the States. Again, there was some inter-State migration of unskilled labour due to the prevalence of unemployment in some areas and the demand for labour in other areas. Some degree of involuntary unemployment among certain sections of industry had become apparent during the Second Plan period, especially in the engineering and textile industries, due to the shortage of raw materials, etc. Remedial measures for augmenting employment were taken for these industries by arranging for additional imports of raw materials. In formulating the Third Plan, a programme of rural works was included in the Plan for providing additional employment during the slack season for agricultural labourers.

2.8 In addition to the backlog of unemployment estimated at 9 million at the beginning of the Third Plan, it was expected that the net additions to the labour force during 1961-66 would be about 17 million. It was envisaged that the Plan programmes would generate 14.5 million new job oppor-

tunities during this period. Though the Plan was launched on its course on 1st April 1961, its implementation became soon overshadowed by a series of events which seriously affected its successful execution. In consequence of the Chinese aggression towards the end of 1962, the country's resources had to be mobilised on a large scale for defence and other non-Plan expenditure which increased sharply for meeting the aggression and for withstanding successfully the dangers looming on the horizon. The Chinese aggression was followed, at no considerable interval, by the hostilities with Pakistan in 1965. These two events cast a heavy shadow over the implementation of the Plan projects, and the country's resources had inevitably to be diverted for meeting the challenge posed by the two countries. Although massive efforts were made for raising more resources by additional taxation, etc., the resources available for the Plan were inadequate for the proper implementation of the Plan projects and the attainment of its targets. All this involved a serious decline in the rate of economic growth and a setback to the planned economic development of the country. Before the country could recover from the adverse effects of these wars, the economy was overwhelmed by the two droughts of unparalleled magnitude and severity in 1965-66 and 1966-67. As a result of the substantial fall in agricultural production and the consequent diminution in the incomes of the rural population, and of the cumulative effects of the events mentioned earlier, the economy of the country suffered a serious setback. A serious industrial recession commenced in 1966-67, which was further accentuated by the large scale reduction in public outlays. This recession persisted until the end of 1967-68. As a result, the unemployment situation worsened considerably after 1965. After a period of industrial growth upto 1965, when the index of industrial production (base 1951 = 100) reached the peak level of 260.9, it actually declined by 0.17 per cent in 1966 and 0.85 per cent in 1967. Industrial production started rising again only from 1968. In the meantime, a large body of technical personnel had been trained in the Indian Institutes of Technology, the engineering colleges, polytechnics and other technical institutions which had been established with great rapidity in all parts of the country, as a result of the expansion of technical education under the Plans and the increase in admissions decided upon during the Third Plan. A surplus of technical personnel became evident around 1966 and it started mounting steadily thereafter.

2.9 The suspension of five year plans and the initiation of annual plans between 1966-67 and 1968-69 resulted in the slowing down of economic development and the postponement or holding in abeyance of a number of projects in various sectors. Employment in the construction industry declined from 1.02 million in 1966 to 0.90 million by 1968*. This diminution of activities in the construction industry, coupled with the pressure of new entrants to the labour force aggravated the unemployment situation further. As mentioned earlier, the period 1966-68 coincided with acute industrial recession which was particularly severe in iron and steel, metals, engineering industries, etc. The recessionary tendency made it difficult for some industrial undertakings to continue their normal working operations, resulting thereby in closures, retrenchment, layoff, etc. The industrial sector was thus not generating fresh opportunities of employment. This specially affected the large numbers of technical personnel who were coming out of various training institutions. Thus, with the deterioration in the growth of industrial production and in the expansion of the tertiary sector, the incidence of unemployment, both for the unskilled persons and for the trained technical personnel, became more widespread.

2.10 While this was the position in the industrial and allied sectors affecting mainly the urban areas, there were developments of great significance and pregnant with great potentiality for the future in the agricultural field. Efforts for improving the per acre yields of those crops for which better varieties were available or in the areas where facilities for irrigation existed, had been intensified during the Third Plan under various programmes, such as the Intensive Agricultural District Programme (IADP). At the same time, efforts were being made to evolve better and more high yielding varieties in various crops. The unprecedented droughts of 1965-66 and the succeeding year highlighted the need for intensifying these efforts. At about this time, a break-through had been achieved by the discovery of high yielding varieties of wheat in Mexico and of rice at the International Rice Research Institute at Manila. This led to the adoption in this country of the new agricultural strategy which was popularly known as the Green Revolution. The use of these high yielding varieties, which were released in 1965 in conjunction with intensive irrigation and high

dosages of fertilisers and the use of pesticides, resulted in striking increases in the yields; and the high yielding varieties particularly of wheat, spread very fast over large areas. The new varieties which are of shorter duration, can produce two or even three crops in a year in areas with assured irrigation; thus multiple cropping also becomes feasible. This intensity of agricultural operations considerably enhances the requirements of labour. In the areas adopting the new technology, therefore, the demand for farm labour increased substantially and the agricultural labourers were able to find continuous employment in the multiplicity of agricultural operations which continued practically all the year around. The green revolution should normally have had the effect of increasing the demand for human labour on a permanent basis for the multifarious agricultural operations. The widespread use of the new high yielding varieties was, however, followed after some time by an increasing demand for farm machinery and other mechanical devices. Thus the increase in the requirement of labour is being off-set, to some extent, by the growing use of machinery and mechanised implements. The recourse to mechanisation which was limited in the early stages to the use of items like seed-drills, simple reapers, threshers, light tractors, etc., was followed by the use of more sophisticated equipment like heavy tractors, large threshers, harvester-combines, etc. The extension, on a large scale, of such mechanisation threatens to bring about serious displacement of human labour in many agricultural operations.

2.11 Besides its repercussions on employment in the rural areas, the green revolution has also brought in its train a host of problems. The use of the high yielding varieties of seeds involves, as mentioned above more intensive irrigation and the application of higher dosages of fertilisers, pesticides, etc.; intensive irrigation also renders feasible multiple cropping. The adoption of the new technology has extended to the irrigated areas only, and in those areas also it has benefited, by and large, the big farmers and has generated large profits for the better-off farmers who have found themselves in possession of substantially increased incomes and profits. The new technology has thus bypassed, to a large extent, small and marginal farmers and agricultural labourers. This has, therefore, increased the social and economic inequalities in the rural areas and

* *Report of the National Commission on Labour*, Government of India, 1969, page 27.

generated new tensions among the different sections of the rural population. As the scope for extension of irrigation in our country is somewhat limited due to the availability of adequate water resources in certain regions only, the bulk of the cultivated area would continue to be dependent upon the vagaries of an uncertain monsoon for its water requirements and is therefore not able to derive full benefit from the new technology. The new strategy of high yielding varieties has practically covered the entire irrigated area under wheat but has still to make substantial headway in the case of rice and other cereals, namely, maize, bajra and jowar. Further in the case of pulses, considerable field research is required to develop suitable high yielding varieties. These factors have limited the coverage of the green revolution in respect of the various foodgrains and its extension to other areas. Large parts of the country have thus remained practically unaffected by it and there has been, as yet, no change in the intensity of agricultural operations nor any marked increase in the demand for labour in these areas. The problem of rural unemployment and under-employment in these areas, therefore remains by and large as acute as ever before.

2.12 Besides the green revolution, there were other factors also affecting the unemployment and under-employment position in

the rural areas. The rate of growth of the population in the rural areas, as in the rest of the country, has accelerated in the sixties and as a consequence the rural labour force has become much larger. Though some part of the rural labour has been continuously migrating to the metropolitan and other urban and industrial areas, the opportunities for their absorption in the urban/industrial economy have become somewhat attenuated because of the slowing down of the rate of expansion of industrial and tertiary activities in those areas. As a matter of fact, the impression is inescapable that in several parts of the country the numbers of those living in the rural areas, and particularly of those dependent on agriculture, have increased both in absolute terms and as a percentage of the total population. While the green revolution has made a visible impact in certain areas, the bulk of the rural population still lives at a subsistence level and the overcrowding in agricultural occupations has intensified the pressure on land. Even now, about 72 per cent of the workers in the country as a whole are engaged in agriculture and allied occupations. Thus agriculture remains as overcrowded an occupation as before and the difficulties of finding either full employment in agriculture, or alternative avenues of employment, continue to plague the bulk of the rural folk as much today as in the past.

CHAPTER III

SOME BASIC ISSUES

Features of Indian unemployment situation

3.1 After briefly reviewing the growth of the problem of unemployment in the country since Independence in the preceding chapter, we now turn to the consideration of some of the basic issues which we feel are important for the study and assessment of the extent of the unemployment problem and for the formulation of suitable strategies and measures for tackling it. Most of these issues are being discussed in some detail at appropriate places in the succeeding chapter of this Report but we felt that it would facilitate the main issues, which come to the fore in consideration of the problem of unemployment, being seen in their proper perspective and being better appreciated if they are juxtaposed together in this chapter.

3.2 The situation regarding unemployment in India cannot be assessed simply in terms of the size of the labour force and the percentage of unemployed persons; these concepts would be only appropriate for developed economies, where the greater part of economic activity consists in full-time wage-paid employment, which is fairly stable throughout the year and where production is mainly for sale or exchange. While well defined concepts are possible for measuring the employment of wage-paid labour in organised industrial activity, such precision is lacking in the case of various types of self-employment household enterprises and employment in the unorganised services sector. In India agriculture supports over seventy per cent of the population and is conducted mainly in household farms with unpaid family labour. Moreover, a vast number of households have very small holdings and only a part of their produce enters the market, most of it being consumed by the households themselves. Among the non-farm activities also a good deal of the activities in small scale industry, trade, etc. is pursued in households. Seasonal unemployment and underemployment prevail with varying intensity, particularly in the rural areas. In the urban areas employment is generally of a wage-paid character, with only small seasonal variations, and consequently there is a greater proportion of the overtly unemployed. Their ranks are constantly being

swollen by the influx of job seekers from the rural areas who migrate on account of the prevalent under-employment and the greater incidence of poverty among the rural households.

Due to the socio-cultural and economic circumstances, the participation of women in economic activity outside their household duties is uncertain in commitment and it varies greatly between different regions of the country and between different seasons. Both in agriculture and industry, a variety of technological levels exist side by side, with a growing modernised sector, a vast sector with traditional and primitive techniques, and a partially improved and progressive sector working at different levels of changing technology. Development has been uneven both in agriculture and industry and there are also growing disparities between different areas, in both the rural and urban sectors, as well as between different sections of the community.

Difficulties in assessing unemployment

3.3 In the earlier Plan documents, the Planning Commission had attempted estimates of the backlog of unemployment, the increase in the labour force during the Plan period, the additional job opportunities expected to be created at the end of the Plan period, showing a growing size of unemployment during the Plan, and the size of unemployment over successive Plan periods. These estimates were in terms of full-time employed and unemployed persons. However, in view of the large extent of under-employment and the prevalence of household farm and non-farm enterprises, as well as the marked seasonal variations in agricultural activities, these estimates did not reveal the real nature and extent of the complex problem of unemployment and underemployment in the country. The single-dimensional numbers of the unemployment thus had little real meaning. The Export Committee on Unemployment Estimates (the Dantwala Committee) has critically examined these estimates and pointed out their limitations, and it has laid stress on the disaggregated assessment of the extent of under-employment and unemployment and their seasonal variations, in different segments of the population, according to sex, age, rural and urban residence,

education, level of earnings, occupation, etc. The question then arises: what are the significant sections of the population and the type of studies and surveys relevant for the proper understanding and assessment of the problem in relation to them. The Panel appointed by us has examined this question in considerable detail, and we are dealing with it in Chapter IV of this Report.

Estimates of poverty

3.4 While the extent of under-employment and unemployment has not been satisfactorily measured, several broad estimates have been made of the proportion of people having a consumption expenditure below a specified level representing minimum subsistence: mainly in terms of adequate intake of food according to accepted standards. These estimates for the rural areas vary from about 38% to 59% of the population, while for the urban areas they range from about 8% to 50% of the population. According to the Planning Commission, consumption expenditure of Rs. 20 per month per capita at 1960-61 prices or about Rs. 40 at the October 1972 prices is considered to be a desirable minimum standard. It is estimated that some 40 per cent of the population lives below this minimum subsistence level.

These estimates are, however, not precise, and are dependent on the assumptions made and the inadequate data available. Besides, consumption expenditure is not a sensitive index of changing earnings and even less of the pattern of unemployment. All the same, these estimates do reveal a serious situation of poverty which is mainly caused by the lack of adequate opportunities for gainful work. They give some idea of the magnitude of the need for additional employment opportunities and for measures to improve productivity. The problem of unemployment and under-employment is basically the problem of bringing up to certain minimum levels the productivity and incomes of the sections of the community below the poverty line whose consumption is less than the minimum standard. It is necessary to identify the different categories of these poor persons and to take into account their socio-economic and cultural conditions, so that the problems of poverty and unemployment may be tackled effectively by better utilisation of manpower resources. The rural poor may be largely identified with the landless agricultural labour households, the households with small holdings, and those engaged in traditional crafts and services. Their specific problems

need to be considered separately and suitable measures suggested for increasing their productivity and promoting subsidiary activities and creating additional employment for them. The ranks of the urban poor are largely being swollen by migrants from villages and rural areas. Better opportunities for employment and earnings in the rural areas would reduce the influx of such persons to urban areas and thereby partly mitigate the acuteness of the problem of urban unemployment. Besides, other measures would also have to be devised to employ the urban poor in the provision of local supplies and services, in small industries and distributive trades, and in developmental and construction works in and around the urban areas.

Educated unemployed

3.5 Much attention has been focussed in recent years on the worsening employment situation for the educated, especially for technically qualified persons and those having university degrees in general subjects. Some of these unemployed persons can be absorbed in the educational system and in technical and other jobs in industry and other spheres, as well as in various schemes of development. But many of them have to be given training and assistance for setting up labour-intensive industries, or engaging in services, transport or other avenues of self-employment which would also help in providing employment for others. The re-orientation of the educational system itself is also a problem needing urgent consideration, while measures to expand, and to improve the quality of education particularly at the lower levels have considerable potential for employment of the educated.

Scheduled Castes and Tribes

3.6 Some other sections of the population requiring special consideration include the Scheduled Castes and Scheduled Tribes who suffer more acutely from the incidence of unemployment and under-employment, particularly due to social disabilities and their general backwardness. Special efforts are needed even for ensuring to them a reasonable share of benefits from the existing common facilities and public services as well as from the plan programmes in general and from special measures for the promotion of employment among the poor and unemployed in rural as well as urban areas. Besides, these segments of the population also require to be provided special assistance by the allotment of land, the provision of training in new skills and trades.

financial assistance, housing, etc. The promotion of education and literacy among them has also to be specially looked after.

Growth of population

3.7 The increase in population, due to the fall in the death rate as a result of better health and medical care without a corresponding reduction in the birth rate, has led to a greater pressure of the population on land and it has also slowed down the rate of increase in per capita income to about one third of the average rate of growth of the national income achieved under development Plans. The increase in the labour force has been proceeding faster than the growth of employment arising from economic development, and unemployment and under-employment have become more acute, particularly in the backward areas and among the poorer sections of the community. It is evident that the rate of growth of the labour force will be even higher during the next ten to twenty years. The need for effective family planning measures therefore, cannot be overemphasised.

Objectives of planning: economic growth and social justice

3.8 The basic questions involved in tackling the problem of unemployment are the choice of suitable objectives of planned development and the proper strategies for pursuing these objectives. Since the commencement of the Five-Year Plans in 1951 in India, the emphasis has been on increasing the national income at a reasonably high rate of growth so as to secure a perceptible increase in the per capita income even after allowing for the growth in population. It has been assumed that such economic growth, with the increase in national income and per capita income would progressively increase employment opportunities and raise the levels of living, and that the benefits of economic growth would percolate to the unemployed and poorer classes so as to improve their conditions progressively as the per capita income goes up. In actual fact, the rate of economic growth over the last two decades has been considerably less than what was planned, while the growth of the population has remained high in spite of the increasing measures to promote family planning. No precise estimates of the additional employment generated or of the extent of unemployment and under-employment have been possible, but all indications are that the employment situation has been getting worse, particularly for the rural poor and for educa-

ted and technically qualified persons. Several studies regarding changes in the pattern of distribution of private consumption expenditure have been made to examine how far the inequalities in levels of living have been affected by the process of economic growth and to measure the extent of poverty in terms of the proportion of population having consumption expenditure below a certain specific minimum level. These studies have demonstrated that inequalities in the distribution of incomes (as indicated by the levels of consumption expenditure) have not become less and have probably increased, while proportion of those living below the bare subsistence level continues to remain alarmingly high. There is also some evidence of increasing disparities and inequalities between different areas and between different sections of the community. Modern technology in industry as well as in agriculture has mainly benefited certain sections who have acquired greater incomes and wealth, while the less fortunate poorer classes have remained without advancement and their conditions have even worsened due to the growing unemployment and ever rising prices. It has, in recent years, been recognised by the planners and by the Government that the objective of economic growth alone, irrespective of the pattern of production and employment, cannot provide an adequate basis for raising the living standards of the poorer sections and for increasing employment, and that the objectives of planned economic development should be extended so as to cover growth as well as the removal of poverty. It is, therefore, necessary that the provision of employment opportunities to ensure to all a minimum level of living as well as to bring about a reduction of inequalities in the distribution of income, should be expressly included among the objectives of development plans along with the objective of overall economic growth.

Plan strategy

3.9 The strategy adopted for planned economic development in the Second Plan was based largely on the model of the Plan-frame formulated by Professor P. C. Mahalanobis and the tentative framework prepared by the Economic Division of the Ministry of Finance and the Planning Commission. The main features of the same strategy were followed in the subsequent plans also. An integral part of this strategy was the allocation of a certain proportion of the available resources for developing basic heavy industries for the manufacture of producers' goods so as to strengthen the foundations of economic independence.

This is brought out by the following extracts* from the Mahalanobis model:

“The proper strategy would be to bring about a rapid development of the industries producing investment goods in the beginning by increasing appreciably the proportion of investment in the basic heavy industries. As the capacity to manufacture both heavy and light machinery and other capital goods increases, the capacity to invest by using home produced capital goods would also increase steadily and India would become more and more independent of the import of foreign machinery and capital goods”.

“We adopted the value $\lambda k = \frac{1}{3}$ as we felt it would not be possible to go beyond this value under present conditions”.

It will be seen that the proportion of investment allocated to the capital goods sector was fixed at one-third in *ad hoc* manner after considering the existing circumstances and on the assumption that a higher proportion would not be feasible.

3.10 As a result of the developments during the First Plan period which had focussed attention on the growing problem of unemployment, the expansion of employment opportunities was included in the main objectives of the Second Plan and the choice of employment-oriented techniques was emphasised in the Plan document. It stressed that though highly capital-intensive techniques were necessary in some new sectors, changes in the established technology which displaced labour must be avoided in other sectors. It emphasised the desirability of generally fostering labour-intensive techniques in the traditional sector to attain the employment targets of the Plan. The aim was to provide for the absorption of the growing numbers of the labour force at suitable levels of income without adversely affecting the building up of a wider base for the growth of the economy in the coming years. During the Second Plan a programme of rural works was also drawn up to provide additional employment to agricultural labour in the slack season, and a pilot scheme for this purpose was prepared as a supplement to the schemes formally included in the Plan.

3.11 The emphasis on the development of basic heavy industries was also continued in the Third Plan. The growing intensity of the unemployment situation during the Plan period led to the adoption of certain short-term palliative programmes. The allocation for

these programmes were, however, not based on a clear economic rationale and were largely determined by the immediate requirements of the situation.

3.12 The main strategy of the Fourth Plan continued to be one of the development of basic heavy industries. The Plan also laid considerable emphasis on labour-intensive schemes such as roads, minor irrigation, soil conservation, rural electrification, village and small-scale industries, housing and urban development. However, due to the large degree of mechanisation of consumer goods industries using the products of basic industries, the rate of growth of the latter was reduced to a considerable extent and the growth of employment was also slowed down, leading to a worsening of the unemployment situation. A number of special programmes were initiated, during the first three years of the Fourth Plan period to deal with the problem of unemployment of educated and technically qualified persons and of the weaker sections of the rural population. These could however operate only as short term palliative measures. A reference is being made to these programmes in the relevant chapters of this Report.

3.13 Due to a variety of reasons, considerable emphasis was put in the plan-frame itself as well as in actual practice, on investment in agriculture and on other programmes for developing the rural infrastructure and social services. The allocation for such programmes were, however, made argely on an *ad hoc* basis depending on the exigencies of the situation and the demands and requirements of various regions, and were not determined on the basis of balanced inter-sectoral relationships under the basic Plan-frame.

It may be pointed out that while the Plan recognised the role of agriculture and small-scale industries in generating employment and producing wage goods, the formulation of the model underlying the Plan-frame did not specifically bring out the possibility that the size of total production of consumer goods required for satisfying the demand for wage goods may operate as a constraint on the rate of growth of the economy and of the volume of employment generated.

3.14 The main strategy for bringing about quick economic growth under planned development over the four Plan periods so far has thus been that of (i) a substantial share of the investment for basic heavy industry so as to

*Prof, P. C. Mahalanobis—Approach to Operational Research to Planning in India (p. 26).

increase the production of capital goods and of steel and other basic materials for industries and the development of power and (ii) agricultural development with the rapid expansion of irrigation, intensive development in selected areas and extension of the new technology involving the use of the high-yielding varieties of the major cereals, increased use of fertilisers and plant protection measures and the adoption of improved farming techniques. The priority to basic and heavy industry has thus been explicitly provided in the Plans by specifying a certain percentage of the total investment for that sector. The growth of the heavy industries sector has, however, been adversely affected, partly due to the utilisation of its products for the growth of mechanised industries in the consumer goods sector. The agricultural development programme has concentrated on the areas having assured water facilities which provide better scope for the growth of high yielding varieties of the main cereals. The advantage of these measures has, however, been taken to a greater extent by the cultivators with larger holdings than by those with small and marginal holdings.

In addition to these main components of the strategy, provision was also made, to varying extent in different regions and States, for the development of infrastructural facilities like roads and water supply and for social services like health and education.

Local development works and other special schemes

3.15 As it was increasingly recognised that the problem of unemployment was becoming more serious and there was need for the dispersal of industrial activity over a wider area, provision was made in the plans, though to a limited extent, for programmes of local development works and rural works and for the promotion of village and cottage industries. During the Fourth Plan, some special schemes have been taken up on a pilot basis in some selected districts for assisting the small farmers, who could become potentially viable, to obtain credit and other facilities, and for enabling the marginal farmers and agricultural labourers to improve the yields from their lands and also to take up allied activities like dairying, etc. Other employment-oriented schemes have been also taken up in the drought-prone areas, while the crash schemes for rural employment is being implemented in all districts. Efforts have been made to develop ancillary industries and to promote small scale units, so as to provide scope for the self-employment of technically qualified persons

and young entrepreneurs. Some other schemes for providing employment opportunities to educated persons, especially the accelerated expansion of primary education, the undertaking of investigations of minor irrigation schemes, the programme of rural engineering surveys, etc., have also been taken up during the last two or three years.

Appraisal of the plan strategies and implementation

3.16 It has been pointed out in some appraisals of the Plan strategies and implementation that the priority to heavy industry has been provided for by allocation a specified share of the investment fixed in an *ad hoc* manner and not on the basis of a rational analysis. In taking up actual schemes under the Plan programmes also, many decisions as regards allocation, technology, project design, etc. have been based on extraneous considerations and the proper execution of the overall strategy has been hampered by such *ad hoc* decisions as well as by delays, bottlenecks and shortfalls in implementation. Some economists have pointed out that some part of the specified share of even 30 to 35 per cent intended for investment in basic heavy industry has been diverted to investment in mechanised consumer industries and in the production of luxury goods. It has been stated that this share was grossly inadequate for the development of the basic heavy sector; and that its development has been further slowed down due to large leakage of the products of the heavy sector, like steel, in making equipment with a high degree of mechanisation for the manufacture of consumer goods, in the production of luxury goods and for other non-essential purposes like urban construction involving substantial use of steel, etc. The allocations of Plan outlays for building up the infrastructure, providing social services, etc., as well as for special programmes for small cultivators, etc., and for other employment schemes have according to this view been determined to some extent on the basis of group pressures and on *ad hoc* considerations.

These criticisms mainly emphasise that the broad strategies of the Plans and the patterns of investment under them have not been properly worked out so as to secure balanced sectoral allocations which would achieve the integrated and balanced development of production of both capital goods and consumer goods as well as provide adequately for the extension of social services and the creation of employment opportunities for the weaker and under-employed sections of the community.

Modified strategies—Wage goods and productivity

3.17 The earlier planning models and critical reviews of the experience acquired from the implementation of the earlier Plans as well as some studies by various economists have indicated fresh approaches to strategies of planning for growth and fuller employment. Under the traditional view there could be a trade-off between investment in wage goods and that in capital goods. A number of studies, however, indicated that investment in wage goods industries upto a certain point is essential so as to ensure a minimum subsistence level to the labour force, and thereby to raise the effective contribution of labour to productivity so that the increase in total production becomes available mainly for further accumulation of capital. For this purpose the only choice for the planners would seem to be the reduction of investment in the luxury consumption sector so as to raise the level of investment in wage goods industries.

In actual practice the scope for raising labour productivity through a rise in wages in the organised sector may be very limited. In the unorganised sector, particularly in traditional village industries and handicrafts, however, a rise in wages up to subsistence level which could lead to increase productivity would only be possible through the adoption of improved techniques. For this purpose the products of the heavy sector would have to be partly diverted to provide the necessary inputs for the adoption of improved techniques in the consumer goods sector, besides meeting the necessary requirements for its own expansion.

Minimum consumption as main objective of strategy

3.18 Another point of view that has been put forward is that a separate consideration of the production and distribution policies is both false and dangerous, and that the distribution policies must be built into the pattern and organisation of production. According to this view, positive measures would need to be adopted for the removal of poverty, even though they would result in a slower rate of growth of the gross national product. For this purpose, the planners should define minimum (or threshold) standards of consumption that the country must reach in a reasonable period of time. Consumption planning should be based on these standards and the planning of production should be geared to the consumption requirements. The requirements of greater production and better distribution should be simultaneously kept in view in determining the

pattern of development. Employment should become a primary objective of planning and should not be treated as merely incidental to the process of economic development. The entire labour force should be regarded as requiring employment in the process of production, and the limited stock of capital resources must be spread accordingly, irrespective of how low the resulting level of productivity of capital or labour may be.

The adoption of the two objectives of a minimum subsistence level of consumption and the provision of employment for the whole labour force would not, however, provide an adequate level of production so as to make the strategy viable, since the resulting productivity may be so low that the total production may not come up even to the minimum level of consumption laid down. Further, these objectives by themselves would not provide an adequate base for economic development at a reasonable rate so as to ensure raising the levels of living of the community. The emphasis on employment, which forms an essential element of this point of view, has, to some extent, been recognised, and the strategy adopted in the document entitled 'Approach to the Fifth Plan' for realising the basic objectives of removal of poverty and attainment of economic self-reliance, includes the expansion of employment opportunities as one of its principal elements.

Heavy investment strategy

3.19 The question of restructuring the broad strategy of planning must be considered from two main view points: how the rate of growth of basic heavy sector, which is crucial for accelerating the process of economic development, can be adequately increased and how provision can be simultaneously made for generating and diffusing employment opportunities as far as possible for our surplus labour economy. For this purpose some economists have advocated what is termed as the heavy investment strategy, which emphasises that the production of the heavy industries sector should be ploughed back as fully as possible for its own expansion; and the consumption goods sector should meanwhile be developed on the basis of traditional and/or labour-intensive techniques which would avoid the use of products of the heavy sector, to the extent compatible with the need for producing sufficient wage goods for the entire labour force. This would meet the increased demand for wage goods due to the additional purchasing power created by the employment of more labour, so as to ensure enough subsistence to the whole

labour force without any reduction in real wages. It is also emphasised that the manufacture of equipment of a high degree of mechanisation for producing wage goods which can be produced by labour-intensive techniques, as well as production of luxury goods for the richer classes should be severely curtailed, if not completely banned, in order to prevent the leakage from the heavy sector which would also maximise the use of labour in the consumption goods sector. It is suggested that this overall strategy should be pursued rigorously for an adequately long period till the basic heavy industries sector has developed fully to the point when its production could fully meet the demands for the manufacture of machinery as well as the production of all kinds of consumption goods including modern wage goods, with full employment of the labour force on a transformed and modernised basis of production with the best available modern technology in all sectors. At that stage it is visualised that there can be a rapid transformation of the whole economy to a completely developed economy with modern and sophisticated technology in all sectors providing all types of consumption goods in which full employment could also be maintained for the entire labour force.

3.20 It would be generally agreed that having regard to the two objectives of an increased rate of economic growth and the provision of employment opportunities to all those who desire to work so as to ensure a minimum level of living for all, the strategy of planned development should include an adequate emphasis on the growth of the basic heavy industry sector as well as on the maximisation of employment opportunities by the use of labour-intensive techniques in all other industries to the extent possible. The rapid growth of the basic heavy industry sector can be achieved only by checking the use of its products for non-essential purposes and ploughing back its products and resources for its own further growth. This can be done by minimising the use of its products for the production of luxury consumption goods of a modernised type and for the manufacture of machinery for the production of consumption goods, which use the products of the heavy industry sector to a substantial extent. For this purpose it is necessary to encourage the use of labour-intensive techniques which ensure economy in the use of products of the heavy sector and also result in an expansion of employment opportunities. The pattern of production of consumption goods must also be such that the essential wage goods required for ensuring a minimum level of living to all are produced in adequate

quantity. The share of total investment which must be allocated to the heavy industries and the concrete pattern of production of other goods and services which should form the basis of allocations to various industries and sectors are matters for the planners to work out consistently with the plan objectives and the overall strategy adopted. It appears necessary that the use of basic materials produced by heavy industries should, to the maximum extent possible, be restricted to promoting the growth of the heavy industry itself and providing necessary infrastructure for the growth of other industries with labour-intensive techniques. This would provide a suitable pattern of production which would increase employment substantially and also produce sufficient wage goods. The production of ordinary wage goods should necessarily have priority over that of luxury goods so that a minimum level of living is ensured for all, though some kinds of goods normally regarded as luxuries may also be needed for the use of the industrial and services sectors and for social consumption, scientific research, etc. The export potential of non-traditional luxury goods will also have to be developed keeping in view our requirements of foreign exchange.

3.21 An important question which requires consideration is how far the emphasis on the growth of basic heavy industry can be sustained for a prolonged period without a simultaneous though slower and regulated growth of modernised industry in other sectors. If the strategy adopted involves ultimately a rapid transformation of the economy, after a prolonged phase of coexistence and separate expansion of a technologically modern heavy sector and a labour-intensive consumption goods sector, large and serious problems are likely to be involved in the eventual wholesale and extensive modernisation of industries in many sectors specially in a large country like India. The magnitude of the effort needed for training of the labour force in the new skills that will be needed in the transformed economy and the problems involved in their movement and relocation in new industries and in the provision of social services and infrastructural facilities to suit the transformed economy, would indeed be formidable. This would call for formulating an adequate plan for the coordinated, suitably phased and efficient modernisation of the various sectors of industry, keeping constant touch with the changing technologies and results of fresh research and development in various fields, taking advance action for the modernisation, at an earlier stage, of certain sectors of industry so as to facilitate the adoption of modern techno-

logies in other industries connected therewith, providing adequate facilities for the training and retraining of the working force and arranging for its deployment in an orderly manner for the proper utilisation of our human resources.

Labour-intensive techniques

3.22 In the preceding paragraphs we have considered some aspects of the broad strategy for planning economic development having the objectives of growth as well as the generation of adequate employment opportunities so as to ensure a minimum level of living to all. We would now like to examine some specific aspects of the policies and measures which need to be formulated for employment generation. The adoption of labour-intensive techniques in all economic activities, including to the extent feasible, in basic and heavy industries also, is a very important aspect of such policies. There is undoubtedly considerable scope for the choice of such labour-intensive techniques in the production of consumer goods. It is necessary that such techniques be adopted to the maximum extent consistent with the production of the requisite volume of wage goods. This would result in a considerable increase in employment opportunities. At the same time the interdependence of various industries and the need for an overall balance in the process of economic development have to be kept in view. For this purpose it may be necessary to adopt even a highly capital-intensive technology in certain segments of production, (like dairying and milk products), in view of their capacity to support an extensive and massive development of activities in the allied labour-intensive sectors.

Land reforms

3.23 Besides the adoption of labour-intensive techniques, the improvement of income of workers engaged in low productive activities, like household farms and traditional crafts also needs to be emphasised. A major institutional factor inhibiting the improvement of small holdings and adoption of the new agricultural techniques by small farmers is the prevailing tenurial system. A number of laws have been enacted for land reforms from time to time, prescribing fair rents to be paid by tenants to landlords, assuring security of tenure to the tenants, abolishing intermediaries and conferring occupancy rights on the actual tillers of the soil and taking over surplus lands owned by big farmers beyond the prescribed ceilings for distribution to small and marginal farmers and landless persons. However, these laws have not been very effective in ensuring security of tenure, etc., to the small tenants

and share-croppers due partly to lacunae in their provisions and partly to defects in their implementation. Effective measures would need to be taken to see that the relevant laws are suitably amended and effectively implemented and that the small and marginal farmers and share-croppers are given the security of tenure necessary for undertaking innovations in agricultural techniques and increasing their productivity and incomes.

Improvement of skills and techniques of rural workers

3.24 The rural artisans and craftsmen also need to be provided technical training and support and given financial assistance for the adoption of better tools and techniques. The marketing of their products also needs to be organised more effectively so that they can obtain reasonable prices for them and are not exploited by middlemen and others. An important aspect or raising the productivity of rural workers is the extension of primary education and the promotion of literacy which could be combined with the upgrading of their skills, particularly in the backward areas and among the scheduled tribes. The provision of basic amenities as well as public health services also need to be extended to them more quickly.

Need for special employment programmes

3.25 The problem of under-employment and unemployment is so vast and complex that even with the implementation of all sectoral programmes under an ambitious plan of development it would not be possible to provide suitable job opportunities to job seekers in various segments of the community and regions of the country. It is, therefore, necessary that as an adjunct to the normal plan programmes designed to achieve specified targets of production and of extension of services, there should be provision for taking up special employment programmes involving different types of construction works and other activities which could be implemented in different places in various rural and urban areas. These programmes should offer suitable employment to those who seek work but are unable to find it in the other existing avenues of employment including the employment generated by plan programmes. There is a vast amount of work which can be undertaken mainly with unskilled and semiskilled labour, so as to conserve and reclaim land, create durable and useful assets and provide infrastructural facilities for promoting the growth of economic activity and securing an improvement in the quality of life in rural as well as urban areas. Suitable programmes for taking up such works should be

selected so as not to draw unduly on scarce resources or affect materially the overall consistency of the plan. The wages under such special programmes need to be kept near the level of the off-season rates for similar work in each area, so that they may not induce people who can find work elsewhere to shift to these special programmes. There is also scope for undertaking numerous projects and schemes and for extending education and literacy which can absorb a very large number of educated and technically qualified persons. If such programmes of rural works and other projects and activities are properly implemented and are taken up at places sufficiently close to the areas having more job-seekers and under-employed persons, and they offer work suitable for being availed of by different segments of the unemployed, they would serve the important function of providing a safety valve for the social tensions and frustrations arising from continued and acute unemployment and poverty and would prevent dire suffering and hunger resulting therefrom. They could also provide some means for better assessing the extent and prevalence of unemployment and poverty in different regions and among different segments of the population, so as to increase our knowledge of these problems and provide some guidelines for policy making and planning at local levels.

Unemployment relief

3.26 A suggestion sometimes put forward is the provision of unemployment relief to those who are unable to find adequate work due to the operation of the social and economic system in a manner not capable of providing sufficient employment for all. The resources needed for providing such relief would be very large; for example, a relief of Rs. 30 per month to ten million persons would cost Rs. 360 crores in a year. Though not adding to the production of material goods, this would reduce the threat to the social order posed by the existence of a mass of unemployed persons running into millions. Besides the substantial resources needed for this purpose, however, the provision of such relief would raise very large issues of determining the criteria for giving such relief, the quantum and duration of relief to each person, the necessary administrative and organisational arrangements for satisfactory operation of the scheme, the inflationary pressures that are likely to arise, etc. In a country having a preponderance of household workers, and with 70 per cent of the population dependent on agriculture which is subject to the vagaries of the monsoon, the operation of any such scheme would present

very difficult problems, besides leaving great scope for malpractices and generating an attitude of indifference to any effort at seeking work. The implementation of suitable programmes on the lines of the Rural Employment Guarantee Scheme of Maharashtra Government so as to provide some work for those who seek it, could on the other hand meet more effectively the need for alleviating the plight of those who are seriously under-employed and unemployed and provide them a means for supplementing their income by actual work having real value rather than through doles while they remain idle.

Social assistance for old and infirm, etc.

3.27 Apart from the persons suffering from lack of employment opportunities, other categories of persons requiring special assistance are those who are old, infirm or handicapped and those affected by rapid changes in the social and economic order. Measures for providing necessary assistance to these categories of persons should also be integrated with programmes for reducing unemployment and poverty so as to subserve the larger objective of social justice. The extension of schemes for the better care and nourishment of children and expectant or nursing mothers belonging to the weaker sections of the community are also important for ensuring proper care of the nation's human resources and for providing suitable conditions for bringing up more healthy and useful citizens for the future. These measures as well as other schemes for the provision of better amenities and social services to the poor and backward sections both in the rural and urban areas, like water supply, hygienic conditions of living, parks, child welfare activities, etc., should be looked upon as being productive in the larger social context though they may not immediately yield material goods for services for current consumption.

Mechanisation

3.28 An important question to consider in relation to employment is that of mechanisation and automation. The essential character of mechanisation is its capacity to economise the use of labour by substituting capital goods and power which can replace the skill and energy concerted into work by human beings. Hence, in the strategy of promoting and maximising the employment of the abundant labour force, there must be built in strong and effective constraints and disincentives to inhibit the use of highly mechanised devices and power in productive processes. Further, in

the choice of techniques and the adoption of appropriate technology, there should be a strong bias against mechanisation and sophisticated techniques combined with a strict regulation of their use. However, the use of such mechanised techniques may be considered justified where they add to the productivity of self-employed artisans and workers who otherwise cannot earn enough for the proper maintenance of themselves and their households. There are also certain sectors of production and some capital works in which the nature of the processes or the time-bound character of the projects necessarily requires the use of mechanised equipment and sophisticated technology, such as the production of petroleum products, reclamation of ravines, power station projects, etc. In some cases the use of a limited amount of specialised equipment could result in raising the productivity to a much higher level with a comparatively low order of investment, so as to result in a substantially higher ratio of output to the capital employed. In the field of agriculture also the multiple cropping of land in certain areas would depend largely on the use of mechanised equipment for completing certain crucial operations, like sowing and harvesting in a very limited time, and the increased intensity of cropping would in turn generate more demand for labour on the farms as well as in other linked activities. Further, in research and development activities in various fields of science and industry and in the collection and analysis of scientific and statistical data, the use of automated equipment and computers would be essential for ensuring timeliness and accuracy for information and know-how necessary for the country's progress and economic development comparable to that achieved by other developed countries. We are however dealing with certain aspects of mechanisation in our chapters on Agriculture and Industry.

For encouraging the greater use of labour and curbing the use of sophisticated types of capital equipment, it is desirable to modify the present policies which tend to make capital relatively cheaper and labour more costly than their economic and social prices. The provision of credit for investment in capital goods should not normally involve any subsidy and it could also be made more costly for highly mechanised equipment for the production of low priority items. Further some incentives could be given for the employment of more labour by using techniques having a labour intensity above the levels which may be specified for particular industries.

Variety of schemes for different sections

3.29 In devising various measures for meeting the needs of various sections of the unemployed and the poor, their specific socio-economic conditions have to be kept in view. Thus Government has taken up specific schemes for small farmers, marginal farmers and agricultural labourers, etc. Some of these have been undertaken as pilot projects; their working needs to be remodelled in the light of experience so as to make them more effective and extend them more widely for the benefit of similar sections of the community in other areas. Some problems have arisen in the organisation of adequate credit, providing supporting facilities, making arrangements for marketing, etc. For small farmers it seems necessary to ensure timely credit on an adequate scale so as to provide loans for irrigation wells, land development, etc., and it would be desirable to consider the possibility of supplementing the cooperative and banking sectors by setting up special credit corporations. In tribal areas the supply of inputs, the extension of credit for the needs of subsistence as well as production and facilities for the marketing of their produce at reasonable rates would have to be provided on a sound basis so as to stop the exploitation of the tribal farmers. For the marginal farmers and other landless households, the promotion of subsidiary occupations to produce goods and services for the community has to be linked with the emerging demands of the rural areas and around growth centres. Care should, however, be taken in the selection of such activities so as to ensure their being taken up in suitable areas where marketing facilities exist or can be developed. The spread of small industries in rural areas could also be promoted in order to provide these sections with some employment on regular or part-time basis. Special attention needs to be given to the promotion of piecework production, particularly by women in the rural households having small farms and by persons engaged in village crafts and other pursuits. In the urban areas the provision of whole time and part-time jobs alone would not suffice and greater efforts would be needed for the promotion of occupations in the secondary and tertiary sectors to provide avenues of self-employment for the educated, skilled and technically qualified persons. For those seeking jobs in the organised industry and other establishments, the provision of short-term training courses would be needed in specific skills of a wide range and variety according to local conditions. The practice of prolonged and frequent overtime work by regular work-

ers needs to be severely checked. The educated persons can be provided employment through the extension of primary education and the promotion of literacy as well as assisted to set up as self-employed persons in various occupations in the secondary and tertiary sectors; while the technically qualified persons can be usefully engaged in the growing industrial and services sectors as also in programmes like surveys, investigation, execution and maintenance of local projects etc., besides being assisted to set up on their own as self-employed persons.

Local planning

3.30 The concept of regional and multi-level planning has been increasingly emphasised in the formulation of plan programmes since the Third Plan. This concept involves the explicit recognition of inter-regional disparities in various aspects of development as one of the factors to be kept in view in the formulation of the plan for the country and its regions. It also involves the necessity of area planning at various levels so as to integrate the local area plans into the plans for larger regions and into an overall plan for the nation. The formulation of programmes of development as well as of special employment programmes needs to be specifically related to local conditions and requirements. For this purpose it is necessary to undertake local surveys and to strengthen the organisation for local planning. The planning of agriculture and related sectors and of economic and social services has to be dovetailed into area development schemes at suitable area levels. Such an approach would require detailed work for the purpose of identifying the development potential of each area in various fields, devising suitable and coordinated programmes for the realisation of such potential, examining the bottlenecks and difficulties likely to arise in its realisation and indicating suitable ways and means of overcoming them. Adequate care would have to be taken to see that the design of such a programme takes into account the relative economic links of the area with other areas and the integrative activities linking it with those areas and that such programmes of different areas are fitted into the overall pattern of development of the region. Such integrative type of activities would include agro-based industries such as dairying, food processing, industries based on commercial crop, forest and marine based industries, mineral based industries, etc.

3.31 It is also important to ensure the effective implementation of area plans and to

co-ordinate the programmes of various agencies at different levels. The district level agencies require to be supervised and given technical guidance by the higher level experts in their own departments. The concrete problems arising at the district level have to be examined and sorted out by periodical discussions in district level co-ordination committees. The more important problems as well as those concerning more than one district need to be considered by the regional or state level authorities. Policy issues and general problems and bottlenecks need to be considered at the state level by high level groups set up for specific categories of programmes as well as by an overall policy committee of the secretaries and/or ministers of the principal departments.

3.32 Consultation with representatives of local bodies, as well as other interested institutions and academic bodies also requires to be encouraged at various levels. Further, there is a need for promoting the formation and active working of voluntary organisations of the weaker sections of the community to be benefited by specific schemes. Such organisations should be consulted and encouraged to participate in the formulation, working and reviews of the measures with which they are concerned.

Resources mobilisation

3.33 The question of adequate mobilisation and proper allocation of resources is of great importance in planning. It is necessary to emphasise here that fiscal and financial measures need to be so devised as to secure the adequate mobilisation of resources by the state from those who have obtained greater benefits from economic development as well as to encourage saving and investment by them in appropriate channels consistent with the plan priorities. The necessity for raising the national rate of investment has to be recognised in order to accelerate the pace of economic growth, through which alone adequate provision of employment and the removal of poverty can be achieved. The agricultural sector has in this respect lagged behind its potentialities even if one takes into account the savings directly invested by it in agriculture. The acutely skewed structure of land distribution and the high concentration of the benefits of the new agricultural technology have, if anything, accentuated this trend. The agricultural sector should be mobilised at least to become self-reliant and not to lean on the resources generated in other sectors of the economy. For this purpose the instrumentality of taxation must necessarily play a major role. An advantage of adequate taxation of agriculture

would be to speed up the pace of land reforms and the growth of agricultural production, as the taxation burden would result in the disposal of parts of the larger farms and also induce more intensive cultivation by the medium and small farmers with a view to maintaining the levels of their net income. In either case employment is likely to increase. It would also need to be considered how far the taxation of private and corporate incomes could be adjusted so as to encourage their better utilisation through investment in productive activities in accordance with the policies and allocation laid down in the plan.

Physical and human resources

3.34 The mobilisation of resources has to be considered not only for the financial requirements of the plan but also for the physical and human resources which need to be generated and suitably allocated for a successful and balanced implementation of various schemes. The objective of full employment and proper utilisation of manpower would influence the formulation of suitable plan programmes. Their proper execution would in turn require the availability of manpower, and for ensuring this, suitable policies in respect of education and training would have to be evolved and continuously adjusted according to the changing needs. If suitable policies for the development of physical and human resources are followed and these are harnessed and properly canalised for implementing the plan programmes consistent with the resource endowment of the country, the mobilisation of financial resources need not pose any insuperable problem.

Economy in public expenditure and budgetary discipline

3.35 The level of public expenditure on administrative and non-developmental services and on other non-plan activities has to be contained within strict limits with an accent on austerity and economy so as to maximise the resources available for planned development as well as to promote a general psychology of efficient management of resources and to curb tendency towards conspicuous expenditure and adoption of lavish standards. It is particularly necessary that adequate discipline in budgetary matters should be practised by the Centre itself and also enforced on the states, so that the levels of deficit financing and overdrafts are kept down and they are not allowed to continue year after year at unduly high levels. It would also be necessary to adopt suitable policies and to take measures for the levy of proper charges for the services and utilities provided by Government or public

corporations, and for the fixation of proper prices for the products of public sector undertakings so that recurrent losses and payment of subsidies to them are avoided.

Resources for large employment programmes

3.36 The magnitude of funds needed for the execution of special employment programmes on an adequate scale so as to provide opportunities for work to those who seek it and to help those living below subsistence level to raise their incomes, will necessarily be very large, considering the vastness of the country and the depth and severity of the problems of poverty and under-employment. The expenditure on a massive scale which would be required for these programmes should, however, be quite feasible if taxation and monetary policies are fully pressed to secure adequate contribution by the more fortunate classes in all sectors who are making larger gains or incomes and are oriented to encourage the middle and lower income groups to save more and invest their savings for developmental purposes. The large expenditure on such special employment programmes should be accompanied by the production of more goods of common consumption through the planned growth of both agriculture and industry and by the orientation of the special employment programmes themselves towards the production of such goods and the construction of social and economic infrastructure. The expenditure on such programmes need not therefore be limited by the need for avoiding deficit financing and overdrafts and it should be possible to finance these by raising loans to be repaid out of the returns expected from the use of the productive assets by the levy of proper charges for such use.

The resources needed for these programmes would have to be mobilised as part of the total effort needed for raising resources for the development plans as the generation of employment and the removal of poverty are some of the major objectives of the planning effort itself. A suitable portion of the resources available for planned development should be set apart specifically for such special employment programmes. If more resources are needed even during the course of implementation of the Plan for undertaking such programmes on a more extensive scale, we feel that there should be no hesitation in raising additional resources for the purpose either by enhancing the existing rates of particular taxes or by imposing a separate cess or surcharge on some of them so as to yield adequate resources for the execution of the special programmes needed for employment generation.

Price stability

3.37 At the same time the objective of price stability needs to be given adequate importance among the objectives of fiscal and monetary policies. Some of the policies mentioned earlier, namely the restriction of production of luxuries, the encouragement of investment in desirable channels, the provision of wide-spread opportunities for employment coupled with the greater production of wage goods, the provision of increased services for the benefit of the poorer sections and the tribal areas, and the observance of budgetary discipline with a vigilant check on undue public expenditure would also contribute towards the objective of price stability.

Wages and incomes policy

3.38 Further, there is need for the evolution and adoption of an integrated policy of

wages, profits and other incomes, so as to ensure an equitable distribution of the national product among the different sections of the community. The adoption of policies for maintaining the stability of prices as well as the modification of policies which appear to favour the use of capital to the detriment of the employment of labour, would help in the smooth working of such policy of wages and incomes. The voluntary limitation of increases in the profits from capital as well as of demands for wage increase in excess of reasonable proportions (consistent with the overall growth of the economy, and with due regard to changes in the prices of essential consumer goods), a progressive policy for the promotion of labour welfare and the provision of social services, may also be some of the elements useful in evolving such policies in the context of social justice.

CHAPTER IV

DIMENSIONS OF THE PROBLEM

4.1 Under the first term of reference, the Committee has been asked to assess the problem of unemployment and under-employment in the country in the background of the recommendations of the Committee of Experts on Unemployment Estimates (the Dantwala Committee) appointed by the Planning Commission in 1968.

Important recommendations of the Dantwala Committee

4.2 The operational recommendations and observations of the Dantwala Committee fall under the following four groups :—

- (i) Observations and recommendations regarding methodology.
- (ii) Concepts and definitions of unemployment and under-employment.
- (iii) Basis of disaggregation of estimates of unemployment, under-employment, etc.
- (iv) Observations and recommendations on the sources of data.

4.3 These recommendations and observations are summarised below :—

- (i) The desire on the part of the lay public to have precise estimates of employment and unemployment is appreciated. It should, however, be realised that precision of the order expected is not always possible. Many limitations of the estimates of labour force, employment and unemployment are inherent in the socio-economic conditions of the country and cannot be wholly overcome by conceptual refinements or improvements in the techniques of estimation. This, however, should not be an excuse for neglecting the task of compiling and presenting the relevant data as intelligently and precisely as possible under the circumstances.
- (ii) The concept of labour force is basic to the issue of unemployment. The concept as adopted in the developed economies is unsuitable for an economy like ours, the main problem being that a sizeable proportion of labour input in

the household enterprises is provided by members of the family who have only a partial attachment to the labour market. They work in family enterprises as and when required without receiving any wages, and thus, they become part of the labour force. When there is no such work, they generally revert to household work. Their inclusion in the labour force is misleading, but their exclusion would be equally unrealistic.

- (iii) In an economy like ours there would be only a little outright unemployment, but there can be considerable seasonal unemployment and under-employment. The distinction between these two features should be clearly recognised and it would not be appropriate to aggregate the estimates pertaining to under-employment into estimates of full-time unemployment in terms of man-years. Not only are the two phenomena analytically distinct, but the remedial action needed for each of them is also different. The planning authorities should, therefore, distinguish clearly between the overtly unemployed and the under-employed and attempt separate estimates of the two categories.
- (iv) In the context of the Indian economy, the character of the labour force, employment and unemployment is too heterogeneous to justify aggregation into a single dimensional magnitude. It was, therefore, recommended by the Dantwala Committee that :—
 - (a) segments of the labour force should be estimated separately, taking into account such important characteristics as region or state, sex, age, rural or urban residence, status or class of worker and educational attainments;
 - (b) the demand likely to be generated for particular categories of labour as a result of various developments envisaged under the Five-Year Plans should be identified initially for

sectors where the personnel or labour requirements can be clearly recognised;

- (c) at the end of each Plan, the estimates of demand should be compared with the actual employment created and the reasons for the differences, if any, should also be identified; and
- (d) meanwhile detailed studies should be made continuously to prepare more precise estimates of employment generated in other sectors of the economy.
- (v) Based on the above considerations, the Dantwala Committee made a number of suggestions for making improvements in the data collected through the decennial censuses of population, national sample surveys (NSS), employment market information (EMI) and the data from the employment exchanges. Some of these suggestions pertained to the concepts and definitions followed in studies on employment, unemployment and under-employment, their inadequacy under certain situations and the need for evolving more purposeful and practical concepts and definitions.
- (vi) The census is usually taken during the slack season to minimise the chance of omission of individuals from the count. In the circumstances, the use of a short reference period for ascertaining economic activity would not be appropriate except for those whose activity remains essentially unchanged throughout the year. It is necessary to modify the basis of identification of the labour force used in the census. A strong case exists for recording the class of workers or status of cultivators in order to ascertain how many are unpaid family workers and how many enter the labour market as wage-employees.
- (vii) The tabulation of data on workers by broad age-groups, industries, etc., and for female workers by marital status could be useful for obtaining labour force projections and should be attempted for the 1971 Census. In the tabulation programme, uniform age-groups should be adopted for compiling tables on items like the unemployed for different groups of population and the distribution according to class of workers should be prepared for the entire working force by sex and 5-year age-groups.
- (viii) The need for more detailed cross-classification of workers by sex, 5-year age-groups, educational level and industry was emphasised.
- (ix) In the decennial censuses of 1941, 1951 and 1961, some efforts were made for collecting data on unemployment. The 1941 Census results were not tabulated. In 1951, the number of unemployed persons in the three states in which the data were collected was very small. In 1961, information on non-workers was collected along with information on persons seeking employment for the first time and those employed earlier but currently out of employment and seeking work. The total of these two categories was taken as representing the number of the unemployed. The number of the rural unemployed persons as enumerated by the 1961 Census was very low.
- (x) After reviewing the proposed programme for the 1971 Census, the Dantwala Committee observed that the enumerators working on an essentially honorary basis do not generally have the training to ask probing questions for ascertaining whether a person was unemployed. It was, therefore, felt that the census organisation should not be burdened with the task of collecting data on unemployment.
- (xi) In various rounds of the NSS undertaken since 1953, extensive data on the economically active population have been compiled which have proved valuable for understanding the complexities of employment, unemployment and under-employment in the country and of the problems involved in measuring them. The Committee made the following observations and suggestions for further improvement of these data :—
 - (a) Careful analytical studies of the NSS data for specific age-groups of the labour force according to urban and rural residence would be of great importance for policy formulation. The rural labour force surveys conducted by the NSS had been discontinued after the 17th round, because of criticism of the concepts used and

- on the assumption that the information derived was of no use for policy purposes. The Committee recommended that the NSS should resume the rural labour force surveys after taking into account their suggestions on conceptual issues.
- (b) The sample size of both rural and urban surveys should be large enough for making statewide estimates of the participation rates and the incidence of unemployment. The estimates of unemployment made so far had been based on the central sample only and valuable information collected through the matching state samples had not been utilised. The Committee emphasised the need for close cooperation between the centre and the states for processing these data.
- (c) An attempt should be made to identify separately the persons in the labour force 'not seeking but available for work' in order to bring about further refinement in the estimates of the unemployed. From the 16th round onwards persons below the age of 15 and those of 60 and above were not classified as unemployed even if they actively sought work. The Committee considered that it was advisable to collect information on all persons seeking work and those not seeking but available for work, irrespective of age, and to tabulate the information according to age, so that if any age-groups are to be excluded that could be done subsequently.
- (d) In view of the sharp seasonal variations in the level of unemployment and other labour force characteristics, it was considered advisable to obtain monthly estimates of labour force characteristics through an appropriate plan of tabulating the NSS data.
- (e) It would be useful if information about the number of hours of work during the reference week could also be collected.
- (xii) The National Employment Service covers practically all districts through a large number of employment exchanges. The data regarding persons on the live registers are available with a relatively short time-lag of about two months. There are, however, certain limitations in attempting to make estimates of unemployment on the basis of these data. These limitations are due to several factors; in the first instance, employment exchanges are located in urban areas; the persons registered there include both rural and urban job-seekers, and their relative proportion is not known; all persons registered are not necessarily unemployed; some of the registrants fall outside the labour force, as usually defined; and there is multiple registration also.
- (xiii) The need for conducting periodical surveys to assess the significance of the above-mentioned factors was recognised and stress was laid on the estimation of appropriate correction factors for adjusting the employment exchange data. It was further recommended that such surveys should be conducted by personnel who are independent of the employment exchanges, and with the assistance of research workers from universities and other academic institutions.
- (xiv) To make the data from live registers of the employment exchanges comparable and complementary to the NSS data, it was suggested that the educational classification adopted should be the same, and that the renewal period for registration should also be made uniform all over the country.
- (xv) The EMI programme taken up during the Second Plan period and strengthened through the Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959, was intended to cover all establishments in the public sector (excepting the establishments under the Ministry of Defence), as well as non-agricultural establishments in the private sector which employ 25 workers or more. With effect from March 1966, the coverage was extended to all public sector undertakings employing 10 or more workers. The Committee suggested that the EMI should aim at covering all establishments using power and employing 10 or more workers, as well as establishments not using power and employing 20 or more workers. The quality of the data might be improved by suitable

classifications, such as, rural and urban location. In order to improve the response and the quality of data, these should be collected through the interview method instead of the postal method.

Action Taken on Recommendations of the Dantwala Committee :

4.4 An inter-departmental committee was set up under the Employment Commissioner to examine and suggest the follow-up action on the recommendations of the Dantwala Committee. This inter-departmental committee included representatives of the Central Statistical Organisation (CSO), the Registrar General of India, the National Sample Survey Organisation (NSSO), etc., and it was specifically asked :—

- (i) to examine the utility, feasibility and priority of the arrangements for the collection of data and the studies recommended by the Dantwala Committee as well as other official agencies;
- (ii) to suggest specific measures and studies to be undertaken by the different agencies on an urgent basis within their existing resources;
- (iii) to suggest any special studies to be undertaken for which additional or specific facilities may have to be provided;
- (iv) to indicate the agencies to which such studies could be entrusted, including non-official research bodies, universities and institutions through the Research Programme Committee and Social Science Research Council or otherwise and
- (v) to examine the basis of approach and methodology for organising the data collection or building up suitable norms and for estimating employment potential in different sectors under the Plan schemes and programmes.

4.5 This committee reviewed the recommendations of the Dantwala Committee and also discussed the programme of 1971 Census, the programme of surveys to be undertaken by the NSSO, the collection of data by the Directorate General of Employment & Training (DGE&T) and the procedures of analysis of these data. The agencies concerned had proposed about 40 studies on different aspects of labour force, employment and unemployment so as to evolve suitable concepts,

definitions and estimates. The Committee reviewed these proposals and suggested in each case the agency most suitable for undertaking the study.

4.6 In April, 1971, the Planning Commission constituted an Advisory Committee of Economists on Employment Studies with the following terms of reference :—

- (i) to assist in drawing up and implementing a programme of studies on employment and unemployment through academic institutions to supplement the programme undertaken by official agencies;
- (ii) to guide and coordinate studies that might be undertaken by academic institutions in all parts of the country, in relation to formulation, implementation and appraisal of current operational programmes with emphasis on employment already initiated, such as, small farmers development agency, marginal farmers and agricultural labourers and rural works programmes in drought prone areas; and
- (iii) to advise on the evolution of an integrated approach to employment orientation of development planning as a whole and for different sectors and at different levels.

This Advisory Committee made a number of recommendations for further studies to be undertaken which are indicated in Appendix VIII.

4.7 In pursuance of the recommendations of this Advisory Committee, the Planning Commission appointed two working groups to define the scope of the studies on employment in construction and employment generation in industries. The Commission also approached a number of universities and research organisations to undertake research on topics recommended by the Advisory Committee.

4.8 In addition to the action taken by the Planning Commission, the following steps were taken by other organisations for the improvement of data relating to employment :—

- (i) In June 1968, the CSO constituted a working group for evolving concepts and definitions suitable for Indian conditions. This group worked out detailed proposals for an urban pilot study. As for a similar study for rural

areas, it suggested that the results of the intensive type studies of rural labour households being currently carried out by the Labour Bureau (Simla) might be taken into account before extending the study to rural areas. These type studies were expected to bring out some important features, such as, the seasonal character of unemployment in the rural areas, seasonal under-employment among casual labour, popularity of traditional occupations, unwillingness of the local labour to migrate, etc. The Programme Advisory Committee of the NSS suggested in 1969 that the views of the Dantwala Committee might also be awaited before undertaking another labour force survey through the NSS. The CSO constituted another working group in 1971 which suggested an outline of a conceptual frame for the employment and unemployment surveys in rural areas keeping in view the recommendations of the Dantwala Committee. These concepts and definitions have been adopted on an experimental basis for the 27th round of the NSS, which would be a full-scale labour force survey on the lines suggested by the Dantwala Committee.

- (ii) The Registrar General has drawn up a tabulation plan incorporating several of the suggestions of the Dantwala Committee.
- (iii) The DGE&T have planned a survey of the registrants of employment exchanges for improving the estimates of the correction factors for utilisation of employment exchange data.
- (iv) The Department of Labour and Employment has already taken steps to introduce a uniform period of three months for renewal of registration in all states (6 months for handicapped and disabled persons). The question of making the classification of educational qualifications of registrants uniform with that adopted by the NSS has not yet been decided.

4.9 Action is still to be completed on the following recommendations of the Dantwala Committee and the inter-departmental committee :—

- (a) Impact studies on command areas of major irrigation projects;

- (b) Studies on the green revolution including the impact of mechanisation;
- (c) Studies on the choice of technology;
- (d) Income and associated studies;
- (e) Studies on fiscal measures for promoting employment.

Concepts and Definitions

4.10 The details of the concepts and definitions used or recommended by different agencies in the collection of data on employment, unemployment and under-employment were looked into by the Panel on Assessment of the Extent of Unemployment and Under-employment appointed by us. The Panel reviewed the efforts made to evolve suitable concepts and definitions for Indian conditions. It particularly examined the recommendations of the International Labour Organisation as also the efforts made by the CSO and the NSSO in evolving suitable concepts and definitions. The subject was studied in relation to the four principal sources of data, namely, the decennial census of population, the national sample surveys, the data from the employment exchanges and the employment market information. The Panel also prepared a review of the research studies carried out during the last 15 to 20 years in the country, which is given in Part I (Appendix I) of its Report. While reviewing this topic we have taken note of the observations and recommendations made by the Panel. Our recommendations on the concepts and definitions are spelt out at appropriate places while discussing the sources of information. Suffice it to say here that taking into consideration the experience of various studies and the data collected in pilot studies, the CSO have evolved concepts and definitions which are in use in the 27th round of the NSS. We feel that these concepts and definitions conform as closely as practicable to the recommendations of the Dantwala Committee on the point, and they may be sufficient for our present needs. We would, however, emphasise that in a dynamic situation there can be no finality about the concepts and definitions of employment, unemployment and under-employment and the subject has to be reviewed at suitable intervals, so that while comparability is maintained as far as possible, the changing conditions and requirements of the users of data can be taken note of and satisfied by suitable modifications in the concepts where considered necessary.

Disaggregation of Estimates

4.11 An important recommendation of the Dantwala Committee was that separate estimates of different segments of the labour force should be attempted taking into account such characteristics as region or state, sex, age, rural-urban residence, status or class of worker and educational attainments. In deciding on the basis of disaggregation, notice has to be taken of the fact that the unemployment situation in India is strongly affected by the social and cultural conditions and the prejudices for or against certain types of employment, activity or work. It would, therefore, be useful to lay emphasis, in any scheme of disaggregation, on the social, cultural and economic factors affecting the population as also on the aspirations and job preferences of the unemployed and the under-employed. However, it must be recognised here that adequate refinement of disaggregation on the basis of all such factors will require efforts over a number of years and can only be the ultimate aim in developing the data on unemployment and under-employment. For the present, with the emphasis on immediate measures for generation of adequate employment, only a broad classification of different segments of the population can be attempted. This would help in understanding the nature of the problem in relation to broad groups of the unemployed and in devising suitable measures to provide employment opportunities to them. The studies carried out by the NSS regarding the economically weaker sections of the population during the 25th round are a step in this direction. There is scope, however, for further and more frequent studies to determine, for example, the following:—

- (i) the demographic characteristics of different segments of the labour force;
- (ii) their educational attainments and other professional and technical training or experience;
- (iii) their present state of employment and its assessment with reference to the above background; and
- (iv) their attitude towards employment, the cultural conditioning and inhibitions, if any.

4.12. These data will, it is felt, help in formulating the policies of employment generation, in planning supply against demand for different types of manpower and in working out the programmes in keeping with the socio-economic conditions of different segments of the population. Some of the

disaggregated data could, no doubt, be obtained by suitably modifying the design or tabulation of sample surveys or through large-scale investigations, but for some of the data required it would be necessary to undertake special type-studies. A few suggestions which could be taken note of in organising such surveys and studies are briefly indicated below:—

- (i) In some cases a state would be too large an administrative unit for an assessment of the unemployment or under-employment situation, and it may be desirable to adopt smaller regions with more homogenous conditions. On the other hand, some of the smaller states could be grouped with other neighbouring ones having similar conditions.
- (ii) The disaggregation of the estimates on the basis of sex should be further classified according to education and socio-economic background of the households from which the individuals come.
- (iii) Information should be gathered on rural-urban residence and rural-urban migration.
- (iv) The status of workers needs to be studied along with job preferences and job aspirations. In this connection, the distinction between primary activity and secondary activity needs to be brought out clearly. For example, many of the students classified as non-workers may be available for jobs; in other cases, studies may constitute a secondary activity, the primary activity being a full-time job.
- (v) A broad classification of the time disposition of members of the labour force by ranges of their earnings from different activities should be attempted as it will give a greater insight into the problem than the present three-category classification of employed, unemployed, and those out of the labour force.
- (vi) A more detailed classification of educational attainment by levels of qualifications and fields of study needs to be attempted so as to enable the formulation of employment programmes in general and the planning of jobs for men and men for jobs.
- (vii) The impact of socio-economic factors on the employment situation and on the success of employment generation programmes needs to be studied. For

example, it would be useful to see how far the economic forces change the attitudes of the people and what changes in social values would require to be promoted.

4.13 There is also a need for assessing the impact of changes in socio-economic conditions and the emergence of new technology on unemployment and under-employment, so as to formulate the programmes of employment on a more realistic basis. As certain types of activities or traditional professions suffer a decline, a section of the labour force would be rendered surplus. However, in a dynamic situation, where the changes in the technology are very fast, it would not be easy to anticipate with any precision the number and types of persons who would go out of employment as a result of changes in technology or the decline of traditional professions, or the number required for new jobs. However, preparations should be made to face the situation as it develops through the institution of short-term orientation courses which could be organised on the basis of needs as indicated by local studies, so as to enable a large majority of the affected workers to become absorbed into new types of employment.

4.14 Further there is a need for more specific and extensive studies into the causal factors which influence the participation rates of different groups of the population. This information will assist in making more useful projections for the future and in devising schemes for providing suitable employment to different sections.

4.15 We would like to emphasise that the suggestions regarding disaggregation of estimates given by the Dantwala Committee, as further elaborated by our Panel, and those made in the previous paragraphs, indicate to some extent what would be desirable for the proper study of unemployment and under-employment in the country with a view to planning both short-term and long-term remedial measures. These suggestions should, for the present, provide some basis of the collection of data and the development of procedures for the same. Needless to say, the disaggregation of estimates to the extent recommended might not be possible from the data now available or those likely to be available in the near future. Till such time as adequate and relevant data become available, we have to depend on short-term devices to exploit the available information to the maximum extent. It might be possible to disaggregate the estimates on a regional basis and according to sex

and certain broad categories of persons in the labour force. An attempt towards such disaggregation is being made in the subsequent paragraphs.

Sources of Data and Assessment of Unemployment and Underemployment

4.16 As mentioned earlier, the four main sources of data on the subject including the decennial censuses of population, the NSS, the employment exchanges and the EMI were discussed by the Dantwala Committee. The limitations of these data have also been brought out by that Committee and they have made suggestions for their improvement. Since the publication of their report, some fresh information has been thrown up by these sources and in some cases efforts have been made to remove the short-comings pointed out by them.

4.17 The available data have been examined and analysed by our Panel. It appears from their Report that the disaggregation of the estimates is possible only to some extent in respect of regions or states, certain sections of the population, sex and rural-urban residence. However, the quality of the disaggregated estimates would necessarily suffer from the same limitations as the global estimates available from each source. In the succeeding paragraphs, an attempt is made to deal broadly with the following aspects of the problem in the light of our Panel's report:—

- (a) Comparative study of information from 1961 and 1971 Censuses with regard to workers and non-workers.
- (b) Unemployment among graduates and technical personnel from the 1971 Census.
- (c) Unemployment and under-employment among the weaker sections of the population from the 25th round of the NSS (1970-71).
- (d) The characteristics of the employment seekers on the live registers of employment exchanges.
- (e) Estimates of unemployment and under-employment brought out by different research organisations, etc.
- (f) Labour force estimates.

Decennial Censuses

4.18 The decennial census of population as a source of data on employment, unemployment and under-employment was discussed in detail by the Dantwala Committee who

observed that census enumerators do not generally have the training to ask probing questions for ascertaining whether a person was unemployed. They, therefore, felt that the Census Organisation should not be burdened with the task of collecting data on unemployment. Despite this and other limitations, we consider that the decennial census with its countrywide organisation and its long traditions is an important source of data and that it should continue to be utilised to the extent possible, particularly in view of the importance of obtaining adequate data on the problem of unemployment. So far as the difficulties arising from changes in concepts and definitions are concerned, these exist in other sources of information also. The data available from the 1961 and 1971 Censuses are of immediate relevance for our purpose. The concepts used in these two censuses are discussed below.

4.19 In the 1961 Census, the following classification of activity* of the individual respondents was made :—

- (i) Working as cultivator.
- (ii) Working as agricultural labourer.
- (iii) Working at household industry :
 - (a) Nature of work.
 - (b) Nature of household industry.
- (iv) Doing work other than the above :
 - (a) Nature of work.
 - (b) Nature of industry, professions, trade or service.
 - (c) Class of worker.
 - (d) Name of establishment.
- (v) Activity, if not working.

In essence, the above classification was based on concepts and definitions which implied the following :—

1. Work constitutes participation.
2. Work implies production of economic goods or services either for consumption or for sale or exchange.
3. The basis of work would be as follows :—
 - (a) In seasonal work like cultivation, live-stock-rearing, dairying, household industry, etc., the persons should have some regular work of

more than one hour a day throughout the greater part of the working season;

- (b) in regular employment in any trade, profession, service, business or commerce, the person should have been employed during any one of the fifteen days preceding the day of enumeration;
- (c) a person who was working but was absent from work due to illness or other causes during fifteen days preceding the day of enumeration or even exceeding the period of fifteen days, should be treated as a worker;
- (d) a person who has been offered work but has not actually joined is a non-worker;
- (e) work includes not only actual work but also effective supervision and direction of work;
- (f) a person under training as an apprentice with or without stipend or wages is regarded as a worker;
- (g) an adult woman who, in addition to household work, was engaged in work, such as rice pounding for sale or wages, or in domestic service for wages for others, or minding cattle or selling fire-wood or making and selling cowdung cakes or grass, etc., should be treated as a worker; and
- (h) a public or social service worker actively engaged in public service activity or a political worker actively engaged in furthering the political activity of his party, should be regarded as worker.

4. The following would not be treated as workers :—

- (a) An adult woman engaged in household duties but doing no other work; and
- (b) persons like beggars, pensioner, those living on agricultural or non-agricultural royalty, rent or dividend receivers who may be earning an income but not participating in productive work, unless they also work in cultivation, industry, trade, profession, business or commerce.

*For details see Census 1961—General Economic Tables Part II B (i).

All non-workers were classified as either seeking work or falling in other categories, viz., students, household workers, dependents, pensioners/rentiers, beggars and inmates of a penal, mental or charitable institution.

4.20 In the 1971 Census, direct data on unemployment as such were not collected. However, the Census classified the population into 'workers' and 'non-workers' with further sub-categories using the following concepts* of 'worker' and 'non-worker':—

- (i) **Worker:** A worker is a person whose main activity is participation in any economically productive work by his physical or mental activity. Work involves not only actual work but effective supervision and direction of work. For persons having regular work in trade, profession, service or business, the reference period for considering the main activity was a week prior to the date of enumeration. If a person had participated in any such regular work on any one of the days during the reference period, he has been classified as worker. A person who normally works but had been absent from work during this reference period on account of illness or travel, holiday, temporary breakdown, strike, etc., has been treated as engaged in regular work in which he would have otherwise been employed, but for his temporary absence. A person under training, such as, apprentice with or without stipends or wages has been considered as economically active and recorded as working. A person, who had merely been offered work but had not actually joined it was not to be treated as engaged in work. There are certain types of work which are not carried on throughout the year, such as, cultivation, live-stock keeping, plantation work, some types of household industry, etc. A person's main activity was to be ascertained with reference to such work in the last one year even if he was not economically active in the week prior to enumeration. Even when a person was engaged in some other work during the period of one week prior to the date of enumeration, his main activity may be cultivation, agricultural labour or some other work attended to normally by him in the course of the year. His main activity has been ascertained by

taking into consideration the work he engaged himself mostly.

The workers were further classified as:—

- (a) cultivators,
- (b) agricultural labourers,
- (c) household industry workers, and
- (d) other workers including factory workers, persons engaged in trade, transport, construction, professions and services, political and social work, etc.

As regards non-workers, they were classified according to their main activity in the following categories:

- (a) household workers,
- (b) students,
- (c) retired persons or rentiers,
- (d) dependents,
- (e) beggars,
- (f) residents of penal institutions or mental hospitals and
- (g) other non-workers, i.e., those not coming under any of the aforesaid categories but seeking work.

Dependents include all non-workers who do not have any gainful activity, who are not engaged in domestic work or studies, who do not get rent or pension, who do not beg, and who depend for their maintenance on other persons.

Thus this category includes:—

- (i) all children who are too young and/or do not go to any educational institution for studies;
- (ii) old and permanently disabled persons who do not do any work including domestic work and depend on others for maintenance; and
- (iii) those able-bodied persons who do not engage in any gainful work and do not fall in any of the other categories of non-workers and also do not seek any gainful work but depend for their maintenance on other persons.

4.21 The Census also sought to ascertain information from all persons, who reported having some gainful work as their main activity, about any gainful activity pursued by them as secondary work. This information was also sought from the non-workers so as to ascertain even their marginal and casual participation in gainful activity; the criterion for deciding whether the gainful activity was the main or secondary activity was the time devoted to it.

*For details see "Instructions to Census Enumerators—1971 Census".

Direct or indirect engagement in a job or enterprise for remuneration or production of goods and services for exchange was treated as gainful work. The participation in work, however, need not always result in the production of goods and services. The following activities were considered to be gainful activities:—

- (i) all activities in the primary sector, i.e., agriculture, livestock rearing and production, forestry, mining and quarrying, etc., leading to production of goods for consumption and/or exchange or sale;
- (ii) all activities in the secondary sector of manufacturing and household industry resulting in production of goods mainly for sale or exchange; and
- (iii) all activities in the tertiary sector, i.e., construction, trade and commerce, transport, storage, communications and services resulting in production of goods or services meant only for the purpose of exchange or sale.

4.22 The main difference between the concepts and definitions adopted for the 1961 Census and those for the 1971 Census was with regard to the basis of work. In the 1961 Census, any person engaged in gainful work even to a marginal extent, (i.e., for one day in the reference week, or for one hour a day in the greater part of the working season), was counted as a worker. In the 1971 Census, the basis of classifying a person as a worker was his having a gainful activity as his main activity. Thus, the 1961 Census classification of workers was much wider than that of the 1971 Census. Due to this, a number of persons, who according to the 1961 Census classification would have been counted as workers, were classified as non-workers in the 1971 Census. This has resulted in a lack of comparability between the data derived from the two Censuses.

A comparison between these two sets of data, as they are, does not indicate the real trend in the labour force participation rates, because the observed difference includes the real change over the decade as well as a further variation due to the different concepts and definitions adopted. In order to estimate the actual change over the decade, irrespective of the variations due to the different concepts and definitions, the Registrar General carried out a sample study in 1972 to collect information relating to workers and non-workers according to both the 1961 and the 1971 concepts and definitions, so as to provide some basis for comparison between the two sets of data. The study is intended to provide information from

which the variation due to the difference in the concepts and definitions may be assessed so as to estimate the actual changes in the participation rates over the decade. The results of the study are awaited.

4.23 It will be observed that the 1971 Census does not provide data on employment, unemployment and labour force directly because the concepts and definitions adopted do not classify the population into such categories. For the purpose of a proper assessment of the problem, some adjustments in the data have been attempted by us as far as practicable. The main features of our assessment, subject to all the limitations inherent in the data, are given in the subsequent paragraphs. The relevant data from the 1971 Census are included in the Census Tabulation Plan under two series, namely B-Series (Economic Tables) and G-Series (Special Tables for Degree Holders and Technical Personnel). In the B-Series there are ten tables giving the classification of the population into ten categories of workers and seven categories of non-workers, by broad age-groups, types of activity and educational levels. The further classification of workers and non-workers is also given according to their secondary activity, if any. Some of these tables are based on the full count while the others are based on a one per cent sample. The relevant information derived from the 1961 Census data and these tables has been compiled into four tables, which are given as Appendices IX to XII. Their contents are indicated below:—

Appendix IX

State-wise percentages of 'workers', of 'non-workers with secondary activity', of 'other non-workers' and of their total, to total population, classified by sex and rural-urban residence (1971 Census).

Appendix X

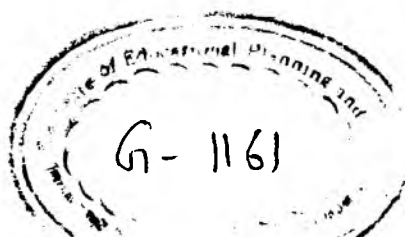
State-wise percentages of 'workers', of 'persons seeking work' and of their total to total population, classified by sex and rural-urban residence (1961 Census).

Appendix XI

State-wise percentages of 'persons seeking work' (1961 Census) and of 'other non-workers' (1971 Census) to total population classified by sex and rural-urban residence.

Appendix XII

State-wise percentages of 'persons of age 15-59 seeking work' (1961 Census), and of 'other non-workers' of age 15-59 (1971 Census) to total population in the same age group classified by sex and rural-urban residence.



4.24 As mentioned earlier the classification of the population into 'workers' and 'non-workers' in the 1971 Census was based on the main activity as reported by a person, while the 1961 Census classified a person with even a marginal amount of work as a 'worker'. In the 1971 Census the secondary activity, if any, of the 'non-workers' was also ascertained (except in the case of those who were classified as 'other non-workers' due to their not reporting any specific main activity, and being in search of work). For the sake of comparison we have combined the categories of 'workers' and those 'non-workers' who had secondary activity according to the 1971 Census so as to arrive at an estimate of those having gainful work as roughly corresponding to the category of 'workers' according to the 1961 Census. The position in this regard for the country as a whole is summarised in Table 1 below:—

TABLE 1 : *Percentage of 'workers' 1961 (Census), and of 'workers' plus 'non-workers' with secondary activity 1971 Census, to total population.*

Area	Sex	Percentage of 'workers' to total population (1961)	Percentage of 'workers' plus 'non-workers' with secondary activity to total population (1971)
(1)	(2)	(3)	(4)
Rural	Males	58.2	53.6
	Females	31.4	15.5
	Persons	45.1	35.0
Urban	Males	52.4	48.7
	Females	11.1	7.7
	Persons	33.5	29.8
All areas	Males	57.1	52.6
	Females	28.0	14.0
	Persons	43.0	34.0

It will be seen that the percentages indicating the working population are much lower in the case of the 1971 Census than those of the 1961 Census. The differences are particularly marked in the case of females. This could be due to either or both of the two reasons: there

might have been a real fall in the proportion of the working population, or the secondary activity of 'non-workers' might not have been accurately ascertained in the 1971 Census so as to cover all persons having some gainful activity who may have come within the concept of 'worker' adopted in the 1961 Census.

It would be observed from Appendix IX that the percentage of females having gainful work as their main or subsidiary activity as per the 1971 Census varies among the main states in the country from 1.68 in Punjab to 25.91 in Andhra Pradesh. Among males, the percentage varies from 44.54 in Kerala to 57.85 in Andhra Pradesh. In rural areas, the percentage of females having gainful work varies from 1.27 in Punjab to 31.69 in Andhra Pradesh, while among males, it varies from 44.76 in Kerala to 60.30 in Andhra Pradesh. In urban areas, the percentage varies from 3.03 in Punjab to 11.60 in Andhra Pradesh among females and from 47.78 in Andhra Pradesh to 50.72 in Maharashtra among males.

4.25 In the 1971 Census, the 'non-workers' were divided into a number of categories like students, house-hold workers, rentiers and pensioners, etc. There is a residual category of 'other non-workers' which includes persons having no specific activity who were seeking work. The percentage of this residual category to the total population are also shown in Appendix IX. In order to assess the size of the labour force from the 1971 Census data, to the extent possible, we have combined the three groups classified in this Census as 'workers', 'non-workers' with secondary activity and 'other non-workers' which, taken together, may reasonably represent those persons who participate in economic activity, whether employed or unemployed. The labour force participation rates estimated on this basis for the country as a whole are shown in Table 2 given below, separately for males and females and for rural and urban areas, along with the corresponding participation rates according to the 1961 Census.

TABLE 2 : *Labour force participation rates according to the 1961 Census and as estimated from the 1971 Census.*

Area	1961 Census			1971 Census		
	Males	Females	Persons	Males	Females	Persons
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural	58.52	31.45	45.24	54.25	15.70	35.45
Urban	54.15	11.25	34.51	50.85	8.12	31.11
All areas	57.67	28.02	43.29	53.55	14.26	34.59

It will be seen that the percentage of the labour force to the total population, estimated on the basis indicated above, for the country as a whole was 34.6 in 1971 as against the corresponding percentage of 43.3 according to the 1961 Census. The percentages are in all cases higher according to the 1961 Census and the differences are particularly large in the case of females. The details for individual states are given in Appendices IX and X.

4.26 Table 3 below furnishes the data on the percentage of 'persons seeking work' according to the 1961 Census and of 'other non-workers' according to the 1971 Census to the total population, by sex and rural urban residence. The data for individual states are given in Appendix XI.

TABLE 3 : *Percentage of persons seeking work (1961 Census) and of 'other non-workers' (1971 Census) to total population.*

Area	Census Year	Males	Females	Persons
(1)	(2)	(3)	(4)	(5)
Rural	1961	0.30	0.04	0.17
	1971	0.66	0.15	0.41
Urban	1961	1.76	0.16	1.03
	1971	2.18	0.39	1.36
All Areas	1961	0.55	0.06	0.31
	1971	0.98	0.20	0.60

Further, the percentages to the total population of 'other non-workers' in the age group 15-59 for the 1971 Census could be compared with those of 'persons seeking work' in the

same age group for the 1961 Census. The relevant data for the whole country are given in Table 4 below, while those for individual states in respect of males and females separately are indicated in Appendix XII.

TABLE 4 : *Percentage of persons seeking work (age 15-59) to the population in that age-group (1961 Census) and of 'other non-workers' (age 15-59) to total population of the same age-group (1971 Census)*

Area	Census year	Males	Females	Persons
(1)	(2)	(3)	(4)	(5)
Rural	1961	0.52	0.06	0.29
	1971	1.06	0.17	0.62
Urban	1961	2.88	0.29	1.74
	1971	3.37	0.57	2.12
All areas	1961	1.01	0.10	0.57
	1971	1.59	0.25	0.94

It will be observed from the two tables above that the percentage for 1971 are much higher than those for 1961. Similarly, the percentages are higher in the case of males than those in the case of females and also the percentages are higher in urban areas than in rural areas.

4.27 During the 1971 Census, information regarding educational levels was also obtained. In the following Table 5, the percentages of 'other non-workers' of 15 years or more for different educational levels according to sex and rural-urban residence are shown for the country as a whole.

TABLE 5 : *Percentage of 'other non-workers' (15 years and above) to the population in this age group by educational levels, sex and rural-urban residence (1971 Census)*

Educational level	Rural			Urban			All areas		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Illiterate	0.37	0.10	0.21	2.33	0.18	1.00	0.60	0.11	0.31
Literate	0.64	0.14	0.51	2.30	0.22	1.47	0.96	0.16	0.74
Primary	0.95	0.14	0.73	3.13	0.33	2.02	1.53	0.22	1.12
Middle	2.44	0.72	2.10	4.19	0.61	2.99	3.10	0.66	2.48
Matric or Higher Secondary	5.93	6.52	6.01	3.89	2.43	3.50	4.80	3.47	4.51
Non-technical diploma or certificate not equal to degree	4.26	21.93	7.87	1.87	3.15	2.23	3.14	11.11	5.08
Technical diploma or certificate not equal to degree	10.17	15.80	11.85	5.92	7.61	6.28	7.84	12.25	8.97
Graduate degree and above	4.09	3.50	4.00	5.48	5.86	5.57	4.75	4.88	4.77

It will be seen that the percentage of 'other non-workers' increases with the level of education, it being the lowest for illiterate rural females (0.10) and the highest for rural females holding a non-technical diploma not equal to a degree (21.93). The percentage for males varies from 0.37 for illiterates in rural areas to 10.17 for technical degree or diploma or certificate holders in rural areas. Generally these percentages are high among technical diploma holders irrespective of rural urban residence or sex.

Unemployment among Graduates and Technical Personnel

4.28 During the 1971 Census, a special card was canvassed for all graduates and technical diploma or certificate holders. The total number of special cards on which the information was furnished is about 2.2 million. However, the tabulation of information collected on individual slips during the 1971 Census indicates that the total number of graduates and technical diploma or certificate holders would be about 3.9 million. Thus, it appears that there was a considerable degree of non-response to the special cards. Hence, the information regarding the various characteristics of graduates and technical personnel, according to the special cards, has to be considered subject to the limitations arising from its partial coverage.

The percentages of unemployed persons among graduates and post-graduates as indicated by the special cards are given in Table 6 below:—

TABLE 6 : *Percentage* of persons seeking employment among Graduates and Post Graduates (special enumeration, 1971 Census).*

Subject field	Graduates	Post Graduate
(1)	(2)	(3)
Agriculture	13.32	7.25
Veterinary Science	6.71	1.47
Medicine	5.31	2.00
Engineering & Technology	11.51	4.62
Sciences (other than the above)	19.18	10.05
Arts	15.10	10.36
Commerce	16.36	7.07

Source : Technical Manpower Bulletin of the Division for Scientific and Technical Personnel CSIR. Vol. XIV, No. 4 April, 1972.

*Retired and unspecified categories have been excluded from the total qualified persons in arriving at the percentages.

It would be observed that the percentage of graduates seeking employment varied from 5.31 for medical graduates to 19.18 among science graduates (other than agricultural graduates, etc.). Among post-graduates, this percentage varied from 1.47 for those with veterinary qualifications to 10.05 and 10.36 for those qualified in science and arts respectively. The data in the above table have, however, their limitations owing to substantial non-response as mentioned earlier. The state-wise position regarding the percentage of unemployed persons among the graduates and technical personnel who returned the special cards is summarised in Appendix XIII. It will be seen that in most of the states, the percentage of the unemployed is higher among females than among males.

In Appendix XIV, the percentage of unemployed persons in different states according to their subject fields is given. The percentage is highest in the case of graduates in arts and humanities and the next highest in the case of commerce graduates, while the lowest percentages are for medical and nursing personnel.

In Appendix XV the average (median) duration of unemployment for persons qualified in different subject fields is given according to sex and educational levels. Taking all subject fields together, the average duration of unemployment is higher for females than for males. Even for persons with a doctorate degree, the average duration of unemployment was 12 months for males and 15 months for females. In Appendix XVI the data regarding the average duration of unemployment are given for individual states.

4.29 A more dependable estimate of the number of graduates and other qualified persons has been obtained by the tabulation of information regarding education obtained on the individual slips during the 1971 census which has been tabulated on one per cent sample basis. Some of the tables based on this information are summarised in Appendix XVII (a) and XVII (b).

It appears from these tables that the total number of graduates and technical diploma or certificate holders was 2.86 million in urban areas and 1.06 million in rural areas making a total of 3.92 million. Assuming that the category of 'other non-workers' roughly corresponds to the unemployed, the percentage of this category to the total stock in each case varied in urban areas from 1.38 for the agricultural and veterinary graduates to 6.28 for

the technical diploma or certificate holders. In rural areas, this percentage was 8.21 for graduates and 11.85 for diploma or certificate holders. The percentages were generally higher for females than for males.

4.30 Besides the estimate regarding stock of educated persons and the unemployed among them derived from the special cards and individual slips collected during the 1971 Census, a further estimate of the stock of qualified persons has been attempted by the Division of Scientific and Technical Personnel of the Council of Scientific and Industrial Research (CSIR) on the basis of the data regarding the stock of qualified persons derived from the 1961 Census and the information regarding the output of graduates and technical personnel by educational institutions during the ten years from 1961. In the 1961 Census, information regarding scientific and technical personnel had been specially collected and data regarding graduates in arts, commerce and humanities was also obtained on individual enumeration slips. From all this, the information regarding stock of graduates and technical personnel in 1961 was available. Adding the number of graduates and diploma holders produced by the universities, etc., during each of the years, and making allowance for deaths, migrations, etc., the estimates of different types of personnel in 1971 were worked out by the CSIR and these are given in Table 7 below :

TABLE 7 : *Stock of graduates and technical diploma holders in early 1971.*

Subject field	Level of education	Stock
(1)	(2)	(3)
Agriculture . . .	(i) Post Graduate	13,500
	(ii) Graduate	47,200
Veterinary . . .	Post Graduate and Graduate.	13,000
Medicine . . .	(i) Degree	97,800
	(ii) Diploma	27,000
Engineering & Technology.	(i) Degree	185,400
	(ii) Diploma	244,400
Sciences (other than the above).	(i) Post Graduate	139,200
	(ii) Graduate	420,000
Nursing . . .	(i) Degree	800
	(ii) Diploma & Certificate.	80,000
Arts & Humanities	(i) Post Graduate	390,700
	(ii) Graduate	1,138,700
Commerce . . .	(i) Post Graduate	43,800
	(ii) Graduate	267,800
TOTAL		3,109,300

Source : Technical Manpower Bulletin of the Division for Scientific and Technical personnel, CSIR; Vol. XIV, No. 4, April, 1972.

The CSIR has tried to assess the extent of non-response to the special cards for graduates and technical personnel in the 1971 Census. It has also attempted to estimate the possible number of unemployed persons in each category in 1971 on the basis of its estimate of the stock and the ratio of the unemployed to the total number of qualified persons in each category derived from the tables based on the special cards canvassed during the 1971 Census. These estimates of the unemployed persons are based on an assumption that the percentage of the unemployed among those who did not respond to the special cards was the same as that among those who responded. However, it is not possible to check the correctness or otherwise of this assumption and these estimates would therefore be only very rough estimates of the actual number of the unemployed. The estimates of unemployed persons seeking employment worked out by the CSIR on this basis are given in Table 8 below :

It will be noticed that the number of unemployed persons seeking employment among graduates and diploma-holders in early 1971 according to the estimates of the CSIR was 4.21 lakhs. According to the information derived from individual slips during the 1971 Census, the number of other 'non-workers' among this category (which may roughly correspond to the unemployed) was 2.04 lakhs. These figures could be compared with the number of graduates and technical personnel registered with the employment exchanges at the end of 1970, which was 2.77 lakhs. It would however be relevant to mention that a sizeable percentage of the persons registered with employment exchanges are already in employment and register themselves with the object of improving their prospects.

4.31 The 1971 Census has also furnished information on the classification of 'workers' according to groups of industries. The percentage distributions of 'workers' in different groups of industries for different states as well as for the country as a whole are given in Appendix XVIII. In the Table 9 below, the percentage distribution of 'workers' by groups of industries is given for the country as a whole.

TABLE 8 : Estimates of persons seeking employment among graduates and technical diploma and certificate holders in early 1971.

Subject field	Level of Education	Persons seeking employment		
		Males	Females	Persons
(1)	(2)	(3)	(4)	(5)
Agriculture	(i) Post Graduate	950	30	980
	(ii) Graduate	6,202	85	6,287
Veterinary	Degree	732	28	760
Medicine	(i) Degree	3,109	1,302	4,411
	(ii) Diploma	970	51	1,021
Engineering & Technology	(i) Degree	19,321	461	19,782
	(ii) Diploma	33,176	991	34,167
Science	(i) Post Graduate	9,435	4,555	13,990
	(ii) Graduate	61,931	18,625	80,550
SUB-TOTAL (i)		135,826	26,128	161,954
Arts	(i) Post Graduate	22,217	18,260	40,477
	(ii) Graduate	105,556	66,388	171,944
Commerce	(i) Post Graduate	3,020	77	3,097
	(ii) Graduate	42,467	1,345	43,812
SUB-TOTAL (ii)		173,260	86,070	259,330
GRAND TOTAL		309,086	112,198	421,284

Source : Technical Manpower Bulletin of the Division for Scientific & Technical Personnel, CSIR, Vol. XIV, No. 4, April, 1972.

TABLE 9 : Percentage of 'workers' by Industry-groups and rural-urban residence. (Census 1971).

Industry	Rural [Urban		All areas
	(2)	(3)	
(1)	(2)	(3)	(4)
Cultivators	51.59	5.10	43.34
Agricultural Labourers	30.71	6.00	26.33
Live-stock, forestry, fishing, hunting and plantations	2.53	1.67	2.38
Mining and Quarrying	0.41	1.00	0.51
Household industry	3.21	4.97	3.52
Other than household industry	2.29	22.86	5.94
Construction	0.74	3.50	1.23
Trade and Commerce	2.44	20.05	5.57
Transport, storage and communication	0.82	9.97	2.44
Other services	5.26	24.88	8.74
TOTAL	100.00	100.00	100.00

National Sample Surveys

4.32 The second important source of data is the National Sample Surveys (NSS) under which data are being collected since 1953, on the economically active population. The collection of data regarding the extent and nature of employment and unemployment was attempted from the 9th round (May to November, 1955) and has been continued since then in one form or another. The coverage of the various rounds of survey and the concepts and definitions have varied during the earlier rounds. Since the sixteenth round (1960-61), the concepts and definitions laid down by the CSO have, by and large, been adopted. However, in view of the criticism levelled against these concepts and definitions, that they were not entirely suited to Indian conditions, the need for evolving more suitable concepts and definitions, particularly in respect of rural areas, was felt. The CSO and the NSSO have jointly made efforts through experimental studies to evolve suitable concepts and definitions for the purpose. A brief indication of these is given below.

4.33 In 1969-70, a pilot study for evolving suitable concepts and definitions in respect of urban areas was taken up with the following objectives:

- (i) Evaluation of the suitability of different concepts and definitions used in labour force surveys, including the NSS, by comparing the estimates based on the NSS approach with alternative estimates based on surveys in which information regarding employment was obtained without pre-determined concepts and definitions; and
- (ii) evolution of suitable concepts and definitions for classifying the population into various categories, such as employed, unemployed and those outside the labour force.

Further in 1971, the CSO constituted a working group which suggested an outline of the conceptual frame-work for employment and unemployment surveys in rural areas keeping in view the recommendations of the Dantwala Committee. Among the recommendations of this working group are the following:—

- (i) Information on income is very necessary to measure under-employment realistically. But, as the information about family income obtained from sample surveys suffers from certain limitations, (due to the difficulty in imputing the value of home-produced goods, non-accounting of the contribution of unpaid family helpers, etc.) it was felt that the data on expenditure rather than income should be collected.
- (ii) The particulars of the usual activity of each individual may be collected with a view to classifying them under suitable homogeneous groups of population. A set of activity categories was also suggested.
- (iii) A detailed inventory of current activities of each individual during the reference week might be collected. The intensity of work on each type of activity may be collected in quantitative terms (e.g. in man-hours).
- (iv) The principal activity may be determined on the basis of total intensity during

the reference week. In case of two activities having the same intensity the order of priority should be (1) 'working', (2) 'partially working' and (3) 'not working'.

- (v) For those whose principal activity is 'partially working' and who seek or are available for work, further probing questions on the duration of the time for which they are with partial work, and seek or are available for work, may be ascertained.
- (vi) In case of unpaid helpers in household enterprises further information on the degree of commitment or non-commitment in the household enterprises and the nature of activity when they are not working as helpers may be collected.

The recommendations of the working group were considered further by the NSSO. A draft schedule and tabulation programme was prepared and the schedule was pre-tested in November/December, 1971. Based on the experience of this pre-test, a full-fledged survey on employment and unemployment has been incorporated in the 27th round of the NSS commencing on 1st October, 1972.

4.34 It would thus be observed that the efforts to improve the concepts and definitions on employment, unemployment and under-employment on the one hand, and to collect data in a form suitable for a meaningful analysis of the situation on the other, have been going on continuously particularly since 1969. Some indication of the information which has become available or is likely to be available in the near future from various rounds of the NSS is given below.

17th to 21st Rounds of NSS:

4.35 The Dantwala Committee had suggested retabulation of the post NSS data so that disaggregated estimates of unemployment and under-employment could be obtained. The possibility of having these data retabulated was explored by our Panel. On consideration of the issues involved they felt that the effort involved in such retabulation might not be worthwhile. In view of this, we have endeavoured to examine the data readily available from the 17th round (1961-62) to the 21st round (1966-67) of the NSS which are summarised in Tables 10 and 10A below:

TABLE 10 : Percentage to total population of persons employed, unemployed and in the labour force (NSS)

Area	Sex	Em- ployed	Unem- ployed	Labour force	
(1)	(2)	(3)	(4)	(5)	
17th Round (September 1961-July 1962)					
Rural . . .	Male	50.25	1.95	52.20	
	Female	20.27	1.89	22.16	
	Persons	35.58	1.92	37.50	
Urban . . .	Male	49.41	1.54	50.95	
	Female	10.49	0.36	10.85	
	Persons	31.16	0.98	32.14	
18th Round (February 1963-Jauary 1964)					
Rural . . .	Male } Female } Persons }	Not available			
	Urban . . .	Male	49.32	0.96	50.28
		Female	10.20	0.25	10.44
Persons		31.05	0.63	31.68	

TABLE 10—concl'd.

(1)	(2)	(3)	(4)	(5)	
19th Round (July 1964-June 1965)					
Rural . . .	Males	51.59	1.42	53.01	
	Females	24.66	2.10	26.76	
	Persons	37.40	1.75	39.15	
Urban . . .	Males	49.93	1.35	51.28	
	Females	12.42	0.98	13.40	
	Persons	32.40	1.18	33.58	
20th Round (July 1965-June 1966)					
Rural . . .	Males } Females } Persons }	Not available			
	Urban . . .	Males	48.10	0.92	49.02
		Females	10.09	0.26	10.35
Persons		3.40	0.61	31.11	
21st Round (July-1966-June 1967)					
Rural . . .	Males	52.98	0.98	53.96	
	Females	27.29	1.24	28.53	
	Persons	40.31	1.10	41.41	
Urban . . .	Males	49.79	0.77	50.56	
	Females	10.65	0.20	10.85	
	Persons	31.42	0.51	31.93	

TABLE 10A : Percentage of employed labour force classified by duration of employment and availability for additional work labour force classified during the reference week. (National Sample Survey)

Area	Sex	Labour force employed			Labour force avail- ble for additional work from		
		28 hrs. or less per week	29-42 hrs. per week	More than 42 hrs. per week	Col. 3	Col. 4	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
17th Round (September 1961- July 1962)							
Rural . . .	Males	11.94	16.67	69.53	3.96	3.74	
	Females	26.28	27.36	43.41	5.89	3.59	
	Persons	15.94	19.79	62.55	4.50	3.69	
Urban . . .	Males } Females } Persons }	Not available			3.15	2.82	
	19th Round (July 1964-June 1965)						
	Rural . . .	Males	10.47	13.30	76.23
Females		22.38	23.70	53.92	..	..
Persons		14.19	16.55	69.26	..	..
Urban . . .	Males	6.21	10.63	83.16	..	..
	Females	24.58	21.83	53.59	..	..
	Persons	9.38	12.55	78.07	..	..
21st Round (July 1966-June 1967)							
Rural . . .	Males Females Persons	Not available					
	Urban . . .	Males } Females } Persons }	Not available				
			5.24*	13.19@	81.28**

Source :-

- (1) A note on Labour Force Surveys in National Sample Surveys, National Sample Survey Organisation, Government of India (Mimicographed).
- (2) NSS-Report No. 173. 'Employment And Unemployment' in Rural and Urban Areas of India (19th Round) issued by the Cabinet Secretariat, Government of India.

*For working 27 hours or less in a week.

@For working 28 to 41 hours in a week.

**For working 42 hours and above in a week.

It will be seen that information on the labour force components, that is, the employed and the unemployed is available for each of the rounds for urban areas only. While this information for rural areas as well as other information for both urban and rural areas is available for some rounds only, State-wise percentage distribution of population by sex and labour force status as per NSS rounds for rural and urban areas is given in Appendices XVIII and XIX.

The percentage of unemployed in the rural population was 1.92 in 17th round, 1.75 in the 19th round and 1.10 in 21st round. In the urban areas, the percentages of unemployed persons among the population in the successive rounds were 0.98, 0.63, 1.18, 0.61 and 0.51 respectively. These figures seem to show that the percentage of the unemployed has been decreasing, albeit slowly, between 1961 and 1967. If these percentages are applied to the estimated urban population in the corresponding years the numbers of unemployed persons would come to 7.7 lakhs in 1961, 5.3 lakhs in 1963, 5.3 lakhs in 1964, 5.5 lakhs in 1965 and 4.7 lakhs in 1966. It is interesting to see that the corresponding figures of persons registered with the employment exchanges at the end of these calendar years were 6 lakhs, 9 lakhs, 8.4 lakhs, 8.3 lakhs and 8.7 lakhs respectively.

If the NSS estimates of the percentages of the unemployed among the population in 1966-67 are applied to the total population, the number of unemployed in that year would be about 4.9 million. This could be compared with the estimated backlog of unemployment of 9 million persons at the end of the Third Five-Year Plan*. The NSS estimates of unemployment are believed to be on the low side, possibly due to the misclassification of some of the unemployed either as the employed or as outside the labour force.

Twenty-fourth Round (1969-70)

4.36 In the 24th round (July 1969 to June 1970) of the NSS data were collected on the under-mentioned items :—

- (i) number of household members engaged in gainful work—their principal industry and occupations;
- (ii) number of days and hours of work in the principal occupation and all the occupations pursued during the reference period of a week;

- (iii) number of hours available for extra work;
- (iv) in case of those who did not have any gainful engagement during the week, information was obtained about their being in search of or available for work; and
- (v) whether they were currently attending educational or training institutions.

From the data relating to these items, some of the state statistical bureaux have provided estimates of the total population, persons with gainful work, persons seeking or available for work, and persons who were under-employed, along with their distribution by sex, age-groups, educational qualifications and rural urban residence.

Twenty-Fifth Round (1970-71)

4.37 In the 25th round (1970-71) of the NSS, information was collected on the socio-economic conditions of the weaker sections of the rural population. In each selected village, the households were divided into three strata, namely (i) wage-earner households having no cultivated land, (ii) the lowest 10 per cent of the households having cultivated land and (iii) the remaining households. The weaker sections of the rural population comprised the first two strata, namely the non-cultivating wage-earner households and the small cultivator households.

The data collected include the following details in respect of the lowest ten per cent of the households having cultivated land (small cultivator households) and the non-cultivating wage-earner households :—

- (i) Time disposition during the reference week of all the members of the household along with their demographic particulars as well as the earnings of the wage earners during the same period.
- (ii) Consumer expenditure.
- (iii) Particulars of household holdings.
- (iv) Receipts from agricultural as well as non-agricultural sources.
- (v) Disbursement on account of agricultural operations.
- (vi) Inventory and transactions relating to physical assets, livestock and poultry.

*Source:—Report of the Study Group on Employment & Training, National Commission on Labour 1967, New Delhi.

- (vii) Indebtedness along with the source from which the loan is taken.
- (viii) Problems and prospects—here, effort was made to obtain the views of the small cultivators on their problems regarding the different activities; and also to get their opinion on the prospects of improving their economic condition through Governmental measures. The objective was to assess their need for betterment through development in agricultural and non-agricultural sectors. The data collected covered the following items :—
 - (a) Possibilities of land development/repair, improvement and long-term credit requirement/supply.
 - (b) Opinion regarding economy of drought animals, medium-term credit requirements/supply.
 - (c) Adoption of new technology and short-term production, credit requirements/supply.
 - (d) Possibilities of supplementing the income of the household from ancillary agricultural and non-agricultural activities.
 - (e) Willingness of the members of the household to move outside the village in the event of regular full-time wage employment being offered to them, particularly on public works.

However, the data so far released do not include information on items (ii), (iii), (v), (vi), (vii) and (viii-a, b and c) given here. The relevant information available from this round is given in Appendices XX, XXI, XXII and XXIII.

Appendix XX furnishes the state-wise data on the population of small cultivator households, the population of non-cultivating wage-earner households and the percentages of these two groups to the total rural population. It will appear from this Appendix that the percentage of the population of small cultivator households to the total rural population in the states varied from 1.3 in Kerala to 7.8 in Assam. The percentage of persons in non-cultivating wage-earner households to the total rural population varied from 1.0 in Kerala to 29.1 in Tamil Nadu. These two segments of the rural population, which are taken as constituting the weaker sections, form a sizeable percentage of the rural population in different states.

Appendix XXI gives the distribution of estimated number of mandays spent under different types of activity by persons in the sample households for different states. It is observed that in almost all the states, the proportion of time spent as unemployed is higher for non-cultivating wage-earner households than for small cultivator households and this holds good for male as well as female members. It is also higher for males than for females. It would further appear that for a small cultivator household the percentage of unemployed time for males varied from 0.4 in Orissa to 10.5 in Kerala, while for females it varied from nil in Haryana to 3.9 in Kerala. For non-cultivating wage-earner households, the percentage of unemployed time for males varied from 0.5 in Orissa to 10.8 in Kerala, while for females it varied from nil in Haryana to 7.7 in Kerala.

The data regarding unemployed time discussed above pertained to members of the labour force in the weaker section irrespective of their age. In Appendix XXII, the percentage distribution of estimated number of man-days in a week by labour force status in respect of the persons aged 15-59 years belonging to small cultivator households and non-cultivating wage-earner households by sex and age-groups is given for different states.

Appendix XXIII gives the average rates of earnings per man-day by persons from the weaker sections of the rural population engaged in agriculture and other occupations, classified by sex and age-groups.

From the 25th round of the NSS information regarding the weaker sections of the rural population is also available and this could be utilised for determining the surplus labour time available in rural areas, the willingness of the unemployed persons to accept work in or outside the village, the wages expected, the nature of employment desired, etc. It may however, be stated that the data presented in Appendix XX, XXI and XXII are subject to the following limitations :—

- (i) The lowest 10 per cent of the cultivating households in one state may not necessarily be having the same economic conditions as the lowest 10 per cent of the cultivating households in another state. Hence, any inter-state comparison of these data would not be meaningful.
- (ii) These data are given in terms of mandays, i.e., the full-time equivalent of

one man's work for a day. The percentage of mandays categorised as unemployed does not necessarily correspond to the percentage of persons who remain unemployed throughout the year covered by the survey. Due to this no distinction can be made between unemployed and under-employment on the basis of these data.

Twenty-sixth Round (1971-72)

4.38 In the 26th round of the NSS, information was collected on the following items concerning the members of the sample households :—

- (i) Usual economic status with a reference period of one year.
- (ii) Number of days worked, or with work but not at work, in some gainful activity during a reference period of one week preceding the date of survey.
- (iii) In case any person did not work on any day during the reference week, whether he was seeking and/or available for work on full-time/part-time basis within the village or nearby or anywhere outside the village.

The results of the survey are not yet available.

Twenty-seventh Round (Oct. 1972—Sept. 1973)

4.39 The field work for the 27th round of NSS commenced in October, 1972, and is expected to last upto September, 1973. The main subject covered by this round of the NSS is the household survey of employment and unemployment taking into account the recommendations of the Dantwala Committee and the findings of the recent pilot and experimental studies. The data will be collected in this survey according to following conceptual framework :—

- (i) The unit of time in terms of which information will be collected will be a day, though the information for each person will be collected for a period of one week.
- (ii) The level of unemployment during different seasons/sub-rounds will be measured in terms of the total number of days of unemployment expressed as a percentage of the total number of days on which the respondents were in the labour force (whether as employed or unemployed). The level of unemployment so measured will indicate the extent of non-utilisation of the available labour supply.

- (iii) Some probing questions would be put to various segments of the population according to their activity category, in order to obtain information about the degree of commitment or non-commitment to the labour force of the persons withdrawing from the labour market after seasonal work, and to ascertain whether their withdrawal was due to the compulsion of other non-gainful activity, (such as, household work) or the presumed or real non-availability of gainful work of a particular type.

The information will be collected mainly on the following items :—

- (a) particulars regarding economic status of the household monthly expenditure, land-holding, irrigated area, cropping pattern, etc. ;
- (b) demographic particulars including the standard of general/technical education and skill attained by members of the households ;
- (c) out-migration and in-migration and the reasons thereof ;
- (d) activities (including employment and unemployment and non-gainful activities) pursued by individual members during the reference week as well as usual activities over a long period; intensity of employment ; idle time and attitude regarding additional work ; and type of employment sought, location preferred and wage expected ;
- (e) possibility of taking up additional work to augment personal income ;
- (f) particulars regarding the registration of household members with employment exchanges ; and
- (g) particulars regarding hired labour engaged by the household during the reference week and the wages paid.

Data from Employment Exchanges :

4.40 A review of some of the data available from the live registers of the employment exchanges has been attempted by us. The data utilised are mainly available upto the 31st December, 1972 though information on some particulars upto the end of January, 1973 has also been utilised. However, it may be mentioned here that this source of information could be further improved. Sample studies on the registrants on the live registers in association with the NSS enquiries can give

valuable information for the assessment of unemployment. The technical ratios estimated in this behalf through an earlier survey undertaken by the DGE&T in 1968 cannot be used now with confidence because of the limitations of those ratios including the coverage, the limited size of the sample and the lapse of several years in which the coverage and popularity of registration has increased considerably. The data and information have been used in the report with suitable indication of their limitations wherever the context so required.

The data relating to the last few years are given in Appendices XXIV, XXV and XXVI. Appendix XXIV gives state-wise information with regard to the number of persons on the live registers at the end of each year from 1961 to 1971 and at the end of December 1972. Appendix XXV indicates the index number of job seekers on the live register as on 31st December, 1972 (with 31st December, 1961 as base). On the other hand, Appendix XXVI furnishes information regarding the number and percentage of placements.

It will be observed from Appendix XXIV that the number of job-seekers on the live registers has been steadily increasing in all the states and that the rate of increase has become more pronounced during the recent years. The total number of persons on the live registers for the country as a whole increased from 1.8 million at the end of 1961 to 5.1 million at the end of 1971. From the latest information available, it appears that the number increased further to 6.9 million on 31st December, 1972, and to 7.0 million on 31st January, 1973. In this connection, it would be relevant to point out that all the persons registering themselves with the employment exchanges are not necessarily unemployed. A sizeable percentage of them are already employed but get themselves registered with a view to improving their prospects. On the other hand, many persons who are unemployed do not get their names registered with the employment exchanges. A considerable amount of multiple registration also exists.

In Appendix XXVI, the number of placements are compared with the number of persons registered during each year. It is seen that only 9.3 per cent. to 14.4 per cent of the persons registered were given placements in different years from 1961 to 1972.

The latest information regarding the distribution of job-seekers on the live registers,

classified by educational levels for the country as a whole is given in Table 11 while their distribution according to the occupational preference is given in Table 12 below.

Employment Market Information (EMI)

4.41 The Employment Market Information (EMI) was intended to cover all establishments in the public sector (excepting those under the Ministry of Defence) and non-agricultural establishments in the private sector employing 25 workers or more. With effect from 1966, the coverage was extended to include all private sector undertakings which employ 10 workers or more. The data on the number of persons employed in these establishments are available for different states and for different industry groups, namely, plantations, mining, manufacturing, construction, electricity, trade & commerce, transport and communications and services. These data furnish a useful indication of changes in the employment situation in the organised sector. The state-wise information derived from the EMI regarding employment in the organised sector for the years 1966 to 1972 is included in Appendix XXVII, giving separately the data for the public sector and the private sector. It will be seen that for the country as a whole the average annual rate of increase in the number of persons employed in the public sector over the six years from 1966 to 1972 was 3.3 per cent while the corresponding rate in the private sector was 1.8 per cent., giving an overall rate of 2.7 per cent for the whole of the organised sector. In 1966, total employment in the organised sector was 155 lakhs, of which 94 lakhs was in the public sector and 61 lakhs in the private sector. As compared with this, the total employment in 1972 was 180 lakhs comprising 112 lakhs in the public sector and 68 lakhs in the private sector. The data regarding employment in different groups of industries for the years 1966 to 1972 are furnished in Appendix XXVIII. It will be seen that in 1966 the highest number employed was 55 lakhs in the services industry group and the next highest was 43 lakhs in manufacturing, while transport and communications provided employment to 22 lakh persons. In 1972 also, the relative position of the different groups of industries was generally the same being 68 lakh persons employed in service, 48 lakh persons in manufacturing and 23 lakhs in transport and communications. The percentage distribution of workers engaged in different industry groups for the country as a whole is summarised in Table 13.

TABLE 11 : Number of job-seekers on the live register of employment exchanges by educational levels as on 30th June, 1972 and 31st December, 1972

Educational level	Number of job seekers on live register			
	30th June, 1972		31st Dec. 1972	
	Males	Females	Persons	Persons*
(1)	(2)	(3)	(4)	(5)
Below Matric (including illiterate)	2,808,321	267,830	3,076,151	3,616,660
Matriculates	1,247,292	237,812	1,485,104	1,744,635
Persons who passed Higher Secondary including Intermediates/Under graduates	589,613	73,591	663,204	931,886
Graduates—TOTAL	355,593	65,111	420,604	601,908**
(i) Arts	139,633	34,547	174,180	254,201
(ii) Science	106,515	13,704	120,219	175,494
(iii) Commerce	60,169	1,142	61,311	83,065
(iv) Engineering	18,231	206	18,437	22,832
(v) Medicine	3,020	816	3,836	5,424
(vi) Veterinary	222	5	227	287
(vii) Agriculture	7,441	33	7,474	10,164
(viii) Law	1,716	52	1,768	2,844
(ix) Education	17,124	13,928	31,052	40,520
(x) Others	1,422	678	2,100	7,077
Post Graduates—TOTAL	31,355	11,560	42,915	..
(i) Arts	14,709	6,254	20,963	..
(ii) Science	8,474	2,054	10,528	..
(iii) Commerce	2,998	28	3,026	..
(iv) Engineering	377	2	379	..
(v) Medicine	107	33	140	..
(vi) Veterinary	28	—	28	..
(vii) Agriculture	620	4	624	..
(viii) Law	189	9	198	..
(ix) Education	2,521	2,548	5,069	..
(x) Others	1,330	630	1,960	..
TOTAL	5,032,074	655,904	5,687,978	6,895,089

Source :—Directorate General of Employment and Training, New Delhi.

*Distribution of persons by sex is not available for the 31st December, 1972.

**The figures include post-graduates also, as their bifurcation into graduates and post-graduates is not available.

TABLE 12 : *Number and percentage of job-seekers on the live register of employment exchanges by broad occupational groups.**

(as on 31st December, 1972)

Occupational Group	Number	Percentage to total
(1)	(2)	(3)
Professional technical & related workers	4,02,557	5.8
2. Administrative, executive and managerial workers	8,784	0.1
3. Clerical, sales and related workers	2,92,064	4.2
4. Agricultural, dairy and related workers (except agricultural labourers)	22,174	0.3
5 Miners, quarrymen and related workers.	4,38	0.1
6. Workers in transport and communication occupations	1,60,330	2.3
7. Craftsmen and production process workers	4,29,024	6.2
8. Service, sports and recreation workers (except watchmen, chowkidars, sweepers etc.).	37,813	0.5
9. Persons without professional or vocational training or previous work experience		
(i) Middle school standard and above but below Matric	9,99,680	14.5
(ii) Matric and above out below graduates	21,15,591	30.8
(iii) Graduates and above	4,74,231	6.9
10. Unskilled* Manual Workers	19,48,452	28.3
TOTAL	68,95,089	100.0

Note—*Statistics relating to unskilled manual workers includes such categories as labourers, watchmen weepers as well as workers below Middle School standard without training or experience.

TABLE 13 : *Percentage distribution of workers by sectors and industry groups (as on 31-3-1972)*

Industry group	Public sector	Private sector	Total
(1)	(2)	(3)	(4)
Plantation, Forestry	2.53	12.00	6.09
Mining, Quarrying	2.28	5.15	3.36
Manufacturing	7.78	58.81	26.98
Construction	8.18	2.44	6.02
Electricity, Gas, etc.	4.09	0.67	2.80
Trade and Commerce	3.34	4.39	3.74
Transport, Communications	20.10	1.24	13.00
Services.	51.70	15.30	38.01
TOTAL	100.00	100.00	100.00

Source : Employment Market Information, Employment Review, November 1972.

Other Sources

4.42 In addition to these main sources, some information is available from a number of studies carried out by different agencies during the last 15 to 20 years. Some of these studies deal entirely with the problem of employment and unemployment among small segments of the population, while others deal with these problems as a part of their wider field of study. Some of the relevant information available from these studies is indicated below.

(1) Intensive Type Studies undertaken by the Labour Bureau, (Simla).

4.43 The Labour Bureau (Simla) carried out intensive type studies of selected rural labour households in some districts of the country during 1967-70. The general objective of these studies was to make a diagnostic study in greater depth of the local labour and employment problem and to assess the impact of work programmes and welfare facilities in the region. The data for thirteen of these studies have become available so far.

The coverage of these studies, however, is not large enough to warrant any generalisation of the findings. In the following Table 14, the percentages of the unemployed to the population of the selected households covered by these intensive type studies are given.

These percentages in the case of males and females have been worked out as percentages of the total population including both males and females in each age-group and not as percentages of the male population and the female population respectively.

TABLE 14 : Percentages of unemployed males, females and total persons to the total population of selected rural labour households by broad age-groups.

State	Districts within which study was undertaken	Sex	Age-groups			
			Below 15	15—19	60+	All ages
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	Mahboobnagar	Males	1.05	1.60	2.50	1.42
		Females	2.02	8.58	5.02	5.70
		Persons	3.07	10.18	7.52	7.12
Bihar	Gaya	Males	0.48	6.90	4.90	3.97
		Females	0.52	2.29	1.96	1.50
		Persons	1.00	9.20	6.86	5.47
Gujarat	Surat	Males	0.61	3.98	1.06	2.21
		Females	1.95	6.83	2.12	4.25
		Persons	2.57	10.81	3.18	6.46
Himachal Pradesh	Chamba	Males	0.63	1.96	1.07	1.34
		Females	0.24	0.34	—	0.28
		Persons	0.87	2.30	1.07	1.62
Jammu & Kashmir	Anantnag	Males	0.80	11.77	2.22	6.52
		Females	1.04	7.66	0.20	4.40
		Persons	1.84	19.43	2.42	10.92
Madhya Pradesh	Rewa	Males	1.02	4.94	5.02	2.40
		Females	2.06	12.18	2.51	5.49
		Persons	3.08	17.12	7.53	7.89
Maharashtra	(i) Ratnagiri	Males	1.00	7.66	1.31	3.83
		Females	—	10.03	0.66	4.88
		Persons	1.00	17.69	1.97	8.71
	(ii) Wardha	Males	0.98	2.37	4.14	1.93
		Females	1.19	5.38	2.68	3.50
		Persons	2.17	7.75	6.82	5.43
Mysore	Hassan	Males	1.32	15.58	0.86	8.03
		Females	1.64	12.27	2.58	6.70
		Persons	2.96	27.85	3.44	14.73
Punjab	Gurdaspur	Males	—	0.38	—	0.19
		Females	—	—	—	—
		Persons	—	0.38	—	0.19
Rajasthan	Tonk	Males	0.63	10.39	0.80	5.50
		Females	0.74	17.65	0.36	6.16
		Persons	1.37	22.04	1.16	11.66
Tamil Nadu	Dharampuri	Males	1.73	11.19	10.55	7.04
		Females	2.53	20.02	2.78	11.37
		Persons	4.26	31.21	13.33	18.47
Uttar Pradesh	Etawah	Males	0.99	5.68	5.48	3.55
		Females	—	0.38	—	0.19
		Persons	0.99	6.06	5.48	3.74
West Bengal	Bankura	Males	0.55	3.56	9.85	1.64
		Females	—	4.22	17.33	2.06
		Persons	0.55	7.78	27.18	3.70

Source : Unpublished data from the Intensive Type Studies of rural labour households available through the courtesy of the Director, Labour Bureau, Simla.
(—) denotes 'Nil'

It will be observed that the percentage of unemployed persons of all ages to the total population (including males and females) in the selected areas covered by the study ranged from a negligible figure of 0.19 to 8.03 for males and from nil to 11.37 for females. The percentage of the unemployed persons (including both males and females) varied from 0.19 to 18.47. The percentages for the individual areas shown in the table bring out the wide range of variations in the level of unemployment, particularly in the age-group 15 to 59.

From the same studies, estimates were also made regarding the extra hours per week for which the persons covered were available for additional work assuming the norm of 70 hours of work per week. The Appendix XXIX indicates the percentages of time available for additional work to the total available working time of the working force in different studies. For all the seasons together, the percentage of time available for additional work to the total available working time per week of the employed persons varied from 0.5 to 27.9.

(2) Pattern of Unemployment Survey by the Operation Research Group, Baroda (1970).

4.44 Another recent study is the one undertaken by the Operations Research Group, Baroda, during July to December, 1970, covering a sample of about 56,000 individuals of 15 years and above. Though this study was undertaken for a different purpose, the employment and occupational details were ascertained as a part of the study. The usual status regarding employment was recorded as furnished by the respondents, and the refinements regarding the commitment to the labour force, extent of under-employment, unpaid family workers, etc., were not gone into.

The percentage distribution of the population between those employed and unemployed and those not in the labour force as estimated by this study is given in Part A of Table 15 below, while the percentage of the unemployed in the sample population of the households having different household income levels taken together for urban as well as rural areas, is given in Part B of Table 15.

Table 15

PART : A Percentage distribution of population (15 years and above) by labour force status.

Employment status	Rural		Urban		Total	
	Males	Females	Males	Females	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Employed	87.0	11.1	76.7	9.1	84.8	10.2
Unemployed	3.3	0.6	5.7	0.8	3.9	0.7
Not in labour force	9.7	88.3	17.6	90.1	11.3	89.1
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00

PART B : Percentage of the unemployed in the population (age-group 15 years and above) classified according to income level of the family.

Household income level	The unemployed in the population in the age group (15 years and above)	Unemployed in the income group as percentage of total unemployed in all income groups
(1)	(2)	(3)
Rs. 100 and less	2.62	45.4
Rs. 101 — 200	1.85	29.5
Rs. 201 — 500	2.23	17.9
Rs. 500 and above	2.37	7.2

The survey estimated the total number of unemployed persons in the country at 7.1 million including 2.1 million in the urban areas and 5.0 million in rural areas.

(3) Other studies

4.45 Other studies were also examined with regard to their location, coverage, design and main findings. The results of the studies are given in the report of our Panel (Part I Appendix I). Some of the results of these studies have been utilised by us to supplement other available data for reviewing the employment situation in each state. However, it was found that the data available from these studies were not adequate for building up an integrated picture of the employment situation in the country in general or its different aspects or to indicate the trends in recent

years, on account of the diversity of conditions in different areas and segments of population covered and the varied nature of the studies as well as the lack of comparability between their concepts and methodologies.

(4) Studies sponsored by the Committee

4.46 At an early stage of our work, some *ad hoc* studies on a small scale were sponsored by us with a view to obtaining information on certain aspects of the problem of employment and unemployment. These studies were conducted by some universities and other research institutions and were mainly directed towards the elaboration of concepts and definitions and of estimation of relative percentage of different segments of the population covered by the study. These have thrown up some useful information, and some of their salient findings are briefly indicated below.

(a) *Study of the Problem of Unemployment in some selected Urban and Rural Areas*

4.47 This study was conducted by the Department of Commerce, Calcutta University, during February to June, 1972. It covered one urban block in Calcutta proper, three blocks in Calcutta suburbs, two other towns, one semi-urban area and two rural areas. In all, 5,782 households were surveyed. The study found the percentage of the unemployed to the population in the areas covered as follows:—

Calcutta proper	. . . . .	9.6
Calcutta suburb	. . . . .	6.1
Peripheral townships	. . . . .	6.6
All urban areas	. . . . .	8.0
Rural areas	. . . . .	8.5

The estimates are based on the employment position obtaining on the day previous to the date of survey and this very short period accounts for the rather large estimate of unemployment. Further among the unemployed persons in urban areas, 55 per cent were recorded as students. The unemployed also included immigrants from Bangla Desh who formed 30.1 per cent of the unemployed in urban areas, 32 per cent in semi-urban areas, and 27 per cent in the rural areas, surveyed by the study. Further the concept of 'unemployment' adopted in the study included want of income and/or job, want of scope

of utilising one's talent and training and want of regularity of income.

(b) *A Survey on Unemployment in Selected Rural and Urban Areas in Assam*

4.48 This study was undertaken by the Department of Economics, Dibrugarh University, during April to September, 1972. The study covered Dibrugarh town and two villages each from Lakhimpur, Sibsagar and Dibrugarh districts. In all 763 urban households comprising 4,795 persons and 604 rural households covering 4,061 persons were surveyed. It was observed that in the urban areas about 18.39 per cent of the persons in the working age group 15-59 were unemployed during the period of the study. These included student unemployed (31 per cent). In the rural areas, the percentage of unemployed persons to the population in the age-group 15-59 was found as 18.15. The unemployed persons in the rural areas included only those persons who reported themselves as fully or completely surplus and persons who were seasonally unemployed were not included in this category. The study was based on the usual-activity-status concept of employment in rural areas, as used in 1961 Census.

(c) *A study of Employment and Unemployment in Selected Urban Areas of Assam.*

4.49 Another study was undertaken in Assam by Gauhati University covering six small towns of the state. About 1,400 households comprising a population of 13,355 were listed at the first stage of the study. In this population 10.3 per cent were found to be unemployed. At the second stage, 351 households comprising a population of 3,110 were taken for further investigation. Of this population the unemployed formed 11.0 per cent. The study used the concept of usual activity and considered persons in the age group 15-59 who did not have any gainful employment and were seeking or available for work as unemployed.

Some details regarding these studies were given in Appendix XXX.

Labour Force Projections

4.50 Earlier in this chapter, the data from the 1961 and 1971 Censuses and from different rounds of the NSS have been examined. We propose to examine here the labour force participation rates and to assess the likely trends in the size of the labour force in the

near future upto 1981. For this purpose we have utilised the participation rates as estimated from these main sources, i.e., the 1961 and 1971 censuses and the 21st round of the NSS. The data regarding workers and persons seeking work in the 1961 Census have been combined for estimating the percentages of the population participating in the labour force in different states. On the other hand, the data regarding 'workers', 'non-workers' with 'secondary activity' and 'other non-workers' in the 1971 Census have been combined for estimating the percentage of the population in the labour force. These state-wise data are given in Appendices IX and X.

4.51 For the purpose of projections of the labour force in future years, a reasonable basis needs to be selected. Ideally the projection of the labour force should take into consideration the factors likely to influence the participation rates of different segments of the population according to sex, age and other characteristics. However, adequate data for this purpose are not available. The participation rates estimated from the three sources mentioned above could form only an approximate basis for estimating the labour force. The likely effect of various factors in the immediate future on the participation rates of different segments of the population according to sex, age groups, rural-urban residence etc., cannot be assessed with any accuracy. However, an expert committee appointed by the Planning Commission has estimated the likely levels of labour force participation rates which may be expected for the year 1971, 1976 and 1981 for broad age-groups of the population, excluding persons below 15 years, after taking into consideration the relevant data available to the Committee.* On the basis of these estimated participation rates, the actual population in the year 1971

and the projected population in 1976 and 1981 we have attempted to estimate the likely size of the labour force in those years. These projections have been worked out only on an all-India basis and their state-wise break-up has not been attempted. The details of the projected labour force on this basis are given in Appendix XXXI, the projections are summarised in Table 16 below:

TABLE 16 : Projected Labour Force (15 years and above) for 1971, 1976 and 1981 based on the participation rates estimated by the expert committee set up by the Planning Commission.

(millions)				
Area	Sex	1971	1976	1981
(1)	(2)	(3)	(4)	(5)
Rural.	Males	119.66	135.18	149.49
	Females	59.85	66.79	74.02
	Persons	179.51	201.97	223.51
Urban	Males	29.16	32.79	40.24
	Females	5.97	7.64	9.75
	Persons	35.13	40.43	49.99
All areas	Males	148.81	167.97	189.74
	Females	65.83	74.42	83.76
	Persons	214.64	242.39	273.50

4.52 The details of the three sets of labour force participation rates from the 1961 and 1971 Censuses and the 21st round of the NSS, as indicated earlier, have been given in Tables No. 2 and 10. On the basis of these participation rates, the actual population for 1971 and the projected population for 1976 and 1981, three alternative sets of labour force projections have also been worked out and these are given in Appendix XXXII. A summary of these three alternative sets of labour force projections is presented in Table 17 below:—

*Report on the Population Projections worked out under the guidance of the Expert Committee set up by the Planning Commission under the chairmanship of the Registrar General, issued by the Registrar General, Ministry of Home Affairs.

The population (age 15 and above) projected by the Committee on the basis of 1971 census population has been taken into consideration for calculating the labour force.

TABLE 17 : *Alternative estimates of projected labour force (all ages) in 1971, 1976 and 1981 on the basis of the participation rates indicated by the 21st Round of NSS 1961 Census and 1971 Census.*

(millions)

Basis of Projections	Area	Sex	1971	1976	1981
(1)	(2)	(3)	(4)	(5)	(6)
21st Round of N.S.S.	Rural	Males	121.53	132.50	142.25
		Females	60.95	66.58	71.44
		Persons	182.48	199.08	213.69
	Urban	Males	29.69	34.23	38.85
		Females	5.46	6.33	7.21
		Persons	35.15	40.56	46.06
	All areas	Males	151.22	166.74	181.10
		Females	66.42	72.91	78.65
		Persons	217.63	239.65	259.75
1961 Census	Rural	Males	131.80	143.70	154.28
		Females	67.19	73.39	78.69
		Persons	198.99	217.09	232.97
	Urban	Males	31.80	36.67	41.60
		Females	5.67	6.57	7.48
		Persons	37.46	43.24	49.08
	All areas	Males	163.59	180.37	195.88
		Females	72.86	79.96	86.17
		Persons	236.45	260.33	282.05
1971 Census	Rural	Males	122.18	133.21	143.02
		Females	33.54	36.64	39.28
		Persons	155.72	169.85	182.30
	Urban	Males	29.86	34.44	39.07
		Females	4.09	4.74	5.40
		Persons	33.95	39.18	44.47
	All areas	Males	152.04	167.65	182.09
		Females	37.63	41.37	44.68
		Persons	189.67	209.03	226.77

4.53 It is difficult to say how far these labour force projections are likely to prove accurate. The participation rates according to the 1961 Census are generally higher than those according to the 1971 Census as well as those derived from the 21st round of the NSS. The participation rates according to the 21st round are slightly below those of the 1971 Census in the case of males; in the case of females, however, they stand between the participation rates of the two censuses. These projections given in Appendix XXXII have all been made by applying the overall participation rates to the total population according to sex and rural-urban residence and separate estimates have not been attempted for broad age-groups. The estimates of participation rates made by the expert committee mentioned above, which form the basis

of the projections in Appendix XXXI are, however, available for the broad age-groups of the working population above the age of 15 years. In estimating these participation rates, that committee had also taken into consideration the likely variations on account of various factors. We, therefore, feel that the projections given in Appendix XXXI and summarised in Table 16 above, based on the participation rates as estimated by the expert committee would probably represent a better approximation to the likely size of the actual labour force in 1976 and 1981.

Conclusion

4.54 We have gone through the data on various aspects of the unemployment problem available from the main sources at the national as well as state levels as also from some

of the localised studies. An attempt has been, made earlier, to the extent feasible, to give some broad features of unemployment and under-employment in the country including the position regarding certain groups like technically qualified persons and graduates, weaker sections of the rural population, etc. We are, however, of the view that an adequate and meaningful assessment of the extent of unemployment in the country as it affects different segments of the community could be made only after further and more extensive data become available. An assessment of the problem made in the light of such data would be of great help in devising remedial measures for tackling the problem. We hope that the efforts currently being made by the NSS to collect more meaningful data on unemployment through its 27th round would go a long way towards providing fuller information for a meaningful assessment.

4.55 Among the recent estimates of the number of persons unemployed in the country are those of Prof. Raj Krishna.* His estimates include the unemployed as well as those under-employed and available for additional work, based on the average percentage derived from the 17th, 19th and 21st rounds of the NSS, of the persons who are unemployed, severely under-employed (working for 28 hours or less in the reference week) or moderately under-employed (working for more than 28 but less than 42 hours in the reference week). According to two estimates given by him, the unemployed persons in 1971 include 9.1 million persons who were wholly unemployed as well as either (a) 9.4 million persons who were severely unemployed and available for additional work, or (b) 20.2 million persons who were severely or moderately unemployed and available for additional work. Thus, he has arrived at one estimate of 18.5 million persons including the unemployed and those severally underemploy-

ed, and another estimate of 29.3 million persons including the unemployed and those severally or moderately under-employed.

4.56 The NSS data pertaining to the 19th Round (as given in table 10—Para. 4.35) indicate the percentage of the unemployed to the total population separately for rural and urban areas and for males and females. Applying these percentages to the population according to the 1971 census the estimated number of unemployed persons works out to 9.0 million as given below :

Area	Sex	Percentage of unemployed persons	Total population in (1971) (million)	Number of unemployed persons (million)
(1)	(2)	(3)	(4)	(5)
Rural	Males	1.42	225.2	3.2
	Females	2.10	213.6	4.5
	Total	..	438.8	7.7
Urban	Males	1.35	58.7	0.8
	Females	0.98	50.4	0.5
	Total	..	109.1	1.3
All India	Males	..	283.9	4.0
	Females	..	264.0	5.0
	Total	..	547.9	9.0

The NSS data also give estimates of under-employment in terms of the percentages of employed persons who had work for specified ranges of hours during a week. These data have been compiled in respect of the 19th round for which information both for rural and urban areas is available. The percentages so derived have been applied by us to the population according to the 1971 Census to obtain rough estimates of persons who were employed to different extents. The results are indicated in the Table 17. These data have been utilised by us for estimating the number of persons in 1971 who were under-employed to a varying extent with separate estimates of those having less than 14 hours of work. These estimates are shown in Table 18 below.

*Prof. Raj Krishna, Professor of Economics, University of Rajasthan, Jaipur, in the Presidential Address delivered at the Indian Agricultural Economics Conference, Kanpur (December, 1972)

TABLE 18 : *Estimated number of under-employed persons in 1971 population (on the basis of percentages of under-employed persons derived from 19th round of NSS).*

Hours of work in a week	Males			Females		
	Percentage of under-employed workers among the employed labour force	Percentage of under-employed workers in population	Under-employed persons in 1971 population (millions)	Percentage of under-employed persons among female workers	Percentage of female under-employed workers in the population	Under-employed persons in 1971 population (millions)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural—						
1-7	0.65	0.34	0.77	1.49	0.36	0.77
8-14	3.15	1.63	3.67	6.18	1.52	3.25
TOTAL 1-14			4.44			4.02
15-21	3.05	1.57	3.54	5.65	1.39	2.97
22-28	3.62	1.87	4.21	9.06	2.03	4.34
TOTAL 1-28			12.19			11.33
Urban						
1-7	0.50	0.25	0.15	1.55	0.19	0.10
8-14	2.14	1.07	0.63	6.64	0.82	0.4
TOTAL 1-14			0.78			0.51
15-21	1.52	0.76	0.45	5.12	0.64	0.32
22-28	2.05	1.02	0.60	11.27	1.40	0.71
TOTAL 1-28			1.83			1.54

It will be seen the number of persons who worked for less than 14 hours per week comes to 8.4 million in rural areas and 1.3 million in urban areas, while the number of those working less than 28 hours per week (including those working for less than 14 hours) comes to 23.5 million in the rural areas and 3.4 million in the urban areas. In view of the very limited hours of work put in by those who worked for less than 14 hours a week, we feel that this category could appropriately be treated as requiring full-time employment. In our view, therefore, the estimate of the unemployed should include the persons who are wholly unemployed as well as those who have work for less than 14 hours a week. On the whole, therefore, we are inclined to the view that the likely number of unemployed persons in 1971 may reasonably be taken as 18.7 million, including 9.0 million who were unemployed and 9.7

million who worked for less than 14 hours a week and who may be treated on a par with the unemployed. These include 16.1 million persons in rural areas (7.6 million males and 8.5 million females) and 2.5 million persons in urban areas (approximately 1.6 million males and 1.0 million females).

4.57 We would like to emphasise here that these figures can only very broadly indicate the dimensions of the problem and cannot give a precise measurement of the extent of unemployment. As already brought out in Chapter III, it is estimated that some forty per cent of the population lives below the subsistence level. Apart from the wholly unemployed persons other categories of persons living below the subsistence level would also need to be provided with work opportunities for adequately supplementing their income

and for bringing them up to a minimum subsistence level.

4.58 Before closing this chapter, we would like to make some suggestions for a few measures which will be of help in better assessment of the position in respect of unemployment and under-employment.

- (i) The decennial census of the population should attempt to obtain broad data on employment and unemployment according to meaningful concepts so as to provide base line information about the working population and its distribution by sex, education, industry, occupation, etc., including the availability for work of those who are currently not working, as well as its classification by other socio-economic conditions.
- (ii) While there may be no finality with regard to the concepts and definitions of employment, unemployment and under-employment, efforts should be made to keep the main concepts reasonably stable and to maintain the comparability of the results as far as possible by adopting suitable classification of the data collected so as to reflect the changes in the concepts.
- (iii) The NSS should undertake every five year, full scale surveys into employment, under-employment and unemployment including data on household per capita income and expenditure levels, so as to assess the employment situation in relation to suitably disaggregated segments of the population. In the intervening years, supplementary surveys or studies should be attempted on particular aspects of the problem.
- (iv) A large number of research agencies in the field are taking up studies on their own. These are useful for specific purposes but they could be made more useful if a suitable mechanism is established through a central agency for effecting coordination of such studies in respect of their subject coverage, sectoral and regional coverage, study designs, etc.
- (v) Despite large-scale collection of data through different sources, there are serious gaps in the information with regard to geographical coverage as well as coverage of specific population groups and subject matter. We feel that the central agency suggested above should take steps to ensure that these gaps are covered as soon as possible by allocating the areas of work appropriately.
- (vi) It is observed that considerable data collected by different agencies in different areas remain sometimes unprocessed or unpublished due to various reasons. The central agency suggested above should, therefore, coordinate the work of various agencies so that the data become available without undue delays.
- (vii) We feel that it is desirable that efforts should be made to improve the employment exchange data as far as possible in regard to their range and coverage and that studies should be under-taken for interpreting the data from time to time both at the national and the state levels. The employment market information should also be improved so as to give information about the absorption and displacement of persons in various occupations and industries as well as regarding their educational qualifications. The coverage of the EMI should also be extended to include the smaller establishments on a sample basis to the extent possible.

CHAPTER V

PLAN PROGRAMMES

5.1 Our second term of reference required us to "recommend the directions in which the programmes included in the Fourth Five Year Plan could be made more employment-oriented in their implementation with due regard to their timely execution, economy and productivity, and to the requirements of rapid economic development". In our Interim Report we had recommended some short term measures in relation to schemes of minor irrigation, rural electrification, roads and inland water transport, rural housing, rural water supply and education. We had also touched briefly upon arrangements for the marketing of the produce of supplementary occupations, the steps that should be taken by the Small Farmers Development Agency (SFDA) and the Marginal Farmers and Agricultural Labourers (MFAL) agencies to assist share-croppers and tenants without recorded rights in land, the refixing of allocation of funds for each district under the Crash Scheme for Rural Employment (CSRE), the scheme for agro-service centres, the need for full utilisation of installed capacity in various industries, greater financial assistance by banks, etc. Around that time we had set up a Working Group to examine the programmes included in the Fourth Plan in greater detail. As mentioned however, in para 1.4 of this report, the Government, on a reference made to them, clarified that the Committee's contribution in regard to the Fifth Plan would seem to lie within the existing terms of reference (iii) and (iv). Accordingly, the Working Group dealt with the second term of reference reading it along with the third and fourth terms of reference and suggested measures which can be taken during the remaining period of the current Plan as well as during the Fifth Plan period so as to make the Plan programmes more employment-oriented in their implementation and execution.

5.2 We have given careful consideration to the points and the recommendations made by our Working Group on Plan. Before we take up considerations of some of the Schemes included in the Plan which could be given more emphasis from the view point of employment,

we would like to review briefly the working of some of the more important employment-oriented schemes currently under execution. A detailed list of such schemes taken up by the central and state governments has been given in the report* of the Working Group on Plan and an abstract of these is given in the Annexure to this chapter.

1. The Small Farmers Development Agencies (SFDA) Scheme and the Marginal Farmers and Agricultural Labourers Agencies (MFAL) Scheme

5.3 These schemes are intended mainly to assist the small and marginal farmers and agricultural labourers, by the provision in the main of credit, inputs and services to make the maximum productive use of their small holdings and to augment their incomes by supplementary occupations like horticulture, animal husbandry, poultry farming, etc. There is need for building up and strengthening the credit structure in the areas covered by these schemes and in our Interim Report we had drawn attention to the fact that some of the more vulnerable farmers, like share-croppers and tenants without recorded rights in land, were facing difficulties in obtaining loans from financial institutions because of their inability to provide sureties to the satisfaction of the banks. In this connection we would like to draw attention to the observations made by the National Commission on Agriculture (NCA) on this subject in their "Report on Credit Services for Small and Marginal Farmers and Agricultural Labourers"†. The Commission have observed that the entire problem of agricultural credit needs should be viewed in the light of providing an integrated agricultural credit service, i.e., provision of credit along with organisation of facilities for its conversion into inputs and services required by farmers for using the credit effectively. The Commission have suggested that such integrated credit service should also look after the credit needs for ancillary occupations like animal husbandry, dairying, fisheries, forestry, etc. The Banking Commission also in their report have taken the view that the problems

*Appendix XL, pages 415-453

†Page 20

of small and marginal farmers call for an integrated approach to their requirements combined with supervised credit and that 'unless the institution which is in direct touch with the rural producers is adequately equipped to provide integrated service combined with credit a complete answer to the problem is not likely to emerge'. We feel that the institutions providing credit to the small and marginal farmers and agricultural labourers for agricultural operations and subsidiary occupations should attempt to develop an integrated service along with provision of credit on the lines of the suggestions made by the NCA in the matter.

5.4 These programmes have been initiated as pilot projects in selected districts most of which are different for each of the two schemes. The experience so far gained of their working has indicated the need for modifications in their pattern and coverage. We feel that it is necessary to identify on a wider scale all the other districts in the country in which such schemes would be useful for improving the viability of small farmers and assisting the marginal farmers and agricultural labourers to improve their incomes and earnings. We feel that both the schemes could usefully be amalgamated in a large number of areas and operated in an integrated manner so as to benefit both the categories of beneficiaries in the same areas. The extended coverage of the scheme should be brought into effect as early as possible and adequate provision made in the Fifth Plan for this purpose.

5.5 The State Governments and administrations of union territories should facilitate the task of the agencies by taking steps to get their land record surveys completed speedily. For this purpose necessary funds should be provided as part of the Plan outlay because these records are necessary for fulfilling the objectives of these employment-oriented programmes. Further, the agencies should indicate to the State Governments, etc., the selected areas where ground-water surveys should be undertaken on a priority basis and they should also assist the State Governments in providing soil-testing kits to extension workers and all training facilities to the participants of the programmes, to the extent possible, out of the agencies' funds.

5.6 As mentioned in the Interim Report, share-croppers and tenants should be identified after local enquiries. An impression appears to exist in certain quarters that the identification of the beneficiaries in some cases has not been free from favouritism and malpractices.

We consider that for the proper and speedy implementation of these programmes it is necessary to develop suitable criteria which can be applied in an objective manner so as to reduce the scope for subjectivity in the identification of such persons. We are also of the opinion that as far as possible, small compact areas or blocks suitable for particular programmes should be selected.

5.7 At present, according to the instructions issued by the Government of India, the basis of identification of small and marginal farmers is not merely ownership holdings but also includes land held under the tenorial systems, including share-cropping. In practice, however, the small and marginal farmers can obtain medium and long-term credit only on the basis of their recorded rights, including ownership holdings and leased lands. The share-croppers, however, are not able to get any such credit or even crop loans as they find it difficult to establish their interest in land in the absence of any record of rights supporting their claim. While identification of ownership of holdings may be necessary from the point of view of assuring security for medium and long-term credit for land development and for loans for productive purposes, it is also desirable to extend the benefit to those small and marginal farmers who have operational holdings including some part of leased land. For this purpose, it should be ensured that such leased land is within a certain reasonable proportion to the total holding and that the person has got some continuity of operation in relation thereto. This would be particularly desirable in those areas where such tenancies have been protected according to local laws. There is no reason why in such cases, they should not be given the benefits under these schemes as small and marginal farmers.

5.8 It is very essential to ensure that the implementation of these schemes is properly coordinated, overseen and supervised. High level officials should be invited occasionally to attend the meetings of agencies so that they can size up problems, discuss these with local officials and see that implementation is smooth and expeditious. At the state and regional levels meetings of the heads of departments could be held to sort out operational problems.

5.9 We feel that the state governments should attach greater importance to the co-ordination of the SFDA/MFAL programmes with other related programmes in the areas, e.g., ground-water surveys, land record ope-

rations, consolidation of holdings, rural electrifications, etc.

5.10 A serious handicap in widening the circle of participation in the SFDA and MFAL schemes has been the difficulty experienced by the agencies in extending assistance to share-croppers due to the absence of records showing their rights or interest in the land cultivated by them on a share-cropping basis. The State Governments should, therefore, take steps to prepare the basic record of rights in land so that the interest of the share croppers and tenants in the land cultivated by them is recognised. We would like to reiterate the suggestion made by us in the Interim Report that the agencies should take steps to persuade the banks to advance short-term and medium-term loans to them for cultivation as well as for undertaking occupations like dairying, fish or poultry farming and piggery, and that it may be necessary for the agencies not only to subsidize such loans but also to impress upon the financial institutions the need of not insisting on sureties from share-croppers and oral tenants.

2. Crash Scheme for Rural Employment (CSRE)

5.11 In our Interim Report we had made certain observations regarding the Crash Scheme for Rural Employment (CSRE). We have noted that Government have already initiated suitable action on these recommendations and sanctioned a scheme, called the Pilot Intensive Rural Employment Project, on similar lines. A further aspect to which we would like to draw attention at this stage is that the class of persons employed on the CSRE as well as on the new scheme sanctioned by the Government, come from the poorest sections of the rural population, for whom the availability of foodgrains at reasonable prices is an important factor which affects their level of consumption. In view of the wages having been fixed at the level of off-season rates for agricultural labourers, we think that the payment of part of the wages in the form of suitable food-grains which are usually consumed by such people, would be very useful in meeting their requirements. Alternatively, the availability of such foodgrains at reasonable prices may be assured through fair price shops or other approved dealers in the vicinity.

5.12 The enquiries made by our Working Group indicate that one of the problems faced by the State Governments in the implementation of the CSRE is the paucity of funds. In this connection it may be mentioned that under the proposed minimum needs programme of the Fifth Plan a larger provision for rural

works, such as rural roads, is contemplated. As the CSRE is being implemented in all the districts throughout the country the availability of funds naturally depends on the overall resources allocated for the scheme. We had occasion in our Interim Report to consider this aspect and we would like to reiterate the suggestion made therein by us that the allocation for each district should be suitably determined after taking into account all relevant factors, such as its population, state of agricultural development, etc. It also appears that 70 to 80 per cent of the expenditure so far incurred has been on the construction of rural roads. While the importance of rural roads in providing the necessary infrastructure to the rural economy is recognised, it is necessary to stress the need for having a number of different types of projects so as to provide a project-mix which would meet the various requirements of areas in which the scheme is being operated. In this connection it would be desirable that a larger proportion of the works which are productive should be taken up for execution under the scheme since they would provide employment on continuing basis, even after their completion. It is also necessary that there be kept ready a shelf of programmes conforming to local planning which could be taken up whenever necessary so as to provide, as far as possible, continuous employment to the rural labour. Arrangements for identifying the persons who are eligible to be employed could be made through surveys, etc., by the village extension officers.

5.13 We would like to draw attention to another scheme known as the Rural Employment Guarantee Scheme which is being implemented by the Maharashtra Government since April, 1972. Some among the salient features of this scheme are that the persons who are unemployed or under-employed in the rural areas can get themselves registered with the village panchayat within the area of each samiti, indicating the type of work which they seek and the period during which they are available for such work. The panchayat samitis function as the basic units for implementing the scheme, and they arrange to provide employment to such registered persons as seek manual work in the various plan works or other non-plan activities in their areas. Whenever necessary they also take up additional works to provide employment to the remaining persons who cannot be provided employment under the normal works programmes, and such additional works are taken during the periods when these persons are available for such work. For this purpose, it is necessary to have a suitable shelf

of works which can be taken up during the different periods of the year; these have, however, to be integrated with the local area plans. Such a scheme would be useful in providing employment at the right periods to the persons who are seasonally under-employed. It has the further advantage of limiting the requirements of new works as the other plan and non-plan works are also simultaneously utilised for providing employment. The wages at these works are kept at such a level that they do not compete with other works particularly agricultural operations. The scheme would provide assurance of work during the period of enforced idleness to the rural unemployed population, which would have a healthy psychological effect. It would also help in making a proper assessment of the incidence of seasonal unemployment and under-employment in each locality, if the works selected are sufficiently close to the workers' homes and the employment offered is of the normal accepted types. For these reasons we feel that this scheme merits the attention of the Government and should be extended to other States also. It has some salutary features which would help in tackling the unemployment problem and also in making a wholesome impact by providing assurance of work to the weaker sections of the people at the time when it is most needed.

5.14 While on this subject, it would be recalled that in our Interim Report* we had suggested that some pilot projects in compact areas should be undertaken in selected districts to deal with all aspects of development and provide progressively employment in different economic pursuits to all persons who may offer themselves for work in those areas. Such pilot projects could be undertaken as action-cum-study programmes so that the problems faced in their implementation under differing conditions could be highlighted and the data obtained as well as the experience gained could provide some guidelines for planning more comprehensive programmes for implementation in the future. Since then we understand, the Ministry of Agriculture have in November, 1972 formulated a scheme entitled the Pilot Intensive Rural Employment Project (PIREP). This project is to be implemented in 15 selected blocks throughout the country and is expected to provide suitable manual employment to all persons in the age group of 15-59 years who may be in need of employment. The

project would be implemented as a research-cum-action oriented project and designed to collect data which could provide guidelines for the formulation of suitable policies and programmes for implementation during the Fifth Plan. The efforts are to be mainly directed to ascertaining the pattern, nature and extent of unemployment and under-employment in the selected areas and thereafter work out the likely costs of the works projects that should be formulated and implemented in order to provide full employment. It is too early, however, to make any assessment of the working of this project.

3. Scheme for Agro-Service Centres

5.15 The scheme of Agro-Service Centres is designed to serve the twin objectives of finding employment for technically qualified personnel and of providing at the same time the much needed services to small and marginal farmers. Each centre, when fully developed, is capable of providing employment opportunities to 10 persons. During the Fourth Plan period 1,700 such centres are likely to be set up with an employment potential of about 12,000 persons, including 2,000 engineering graduates and diploma holders. During the Fifth Plan period it is proposed to set up 7,500 such additional centres with a proposed outlay of Rs. 13.24 crores. These centres are expected to have an employment potential of about 85,000 persons, including 8,000 engineers and diploma holders.

The idea underlying the agro-service centres is a flexible one. Their activities may include the provision of consultancy services and arrangements for the hiring out of tractors and agricultural implements, the provision of assistance in land development, installation of pumpsets, etc. They may also provide facilities for storage and processing, supply of inputs such as fertilizers, pesticides, seeds, spare parts, engineering stores, fuel oils, lubricants, etc. The objective of the scheme is to provide self-employment opportunities to engineers, diploma holders, agricultural graduates and other technically qualified persons. Special orientation training over a period of three months is provided with free boarding to those qualified persons who intend to set up such centres.

5.16 In the operation of this scheme, considerable difficulties have been felt by the technical personnel desiring to set up such

*Interim Report on Short-term Measures of Employment-Committee on Unemployment, Government of India, February, 1972-Page 9.

agro-service centres due to the difficult terms insisted on by the banks which require a large percentage of margin and sureties for 200 per cent of the loan amounts to be advanced to them. In order that the scheme may be feasible for technically qualified persons who often do not have the requisite financial resources of their own, it is necessary that suitable and convenient terms of finance for them should be arranged with the banks and that the procedures of the latter should be streamlined. We understand, however, that as a result of certain steps taken by the Ministry of Agriculture and the Department of Banking (Ministry of Finance), there has been some improvement in recent months in the position regarding the sanction of loans by some of the banks. It is desirable, that vigorous steps may continue to be taken for bringing about further improvement in the position.

Another difficulty which has been experienced is the lack of availability of tractors and their allocation to such service centres. The State Governments and agro-industries corporations may consider giving priority for such allocation to the selected technical persons desiring to set up such centres. Special training facilities are also necessary for the actual operation and maintenance of the tractors and other machinery to be undertaken by these centres. Training in business management and public relations should also be imparted at the training centres to the young entrepreneurs incharge of these agro-service centres. These should be arranged with the assistance of the agro-industries corporations and important manufacturers of agricultural tractors and machinery such as pumps. The difficulties arising from the non-availability of fertilizers, fuel and lubricants for sale by agro-service centres have also, we understand, placed constraints on their scope and utility. It is desirable, therefore, that State Governments and agro-industries corporations should assist the entrepreneurs running these centres in obtaining dealership or distributorship of these products from the manufacturers/suppliers concerned. We recommend that these issues might be considered by the Ministry concerned in order to facilitate the implementation of this scheme so that a sufficiently large number of centres might be set up for catering adequately to the agricultural needs of the rapidly developing areas.

4. Scheme for the Creation of Planning and Design Units for Preparation of Rural Water Supply Schemes in the States.

5.17 In our Interim Report* we had made a reference to the importance of providing the basic amenity of rural water supply to build up an essential infrastructure for rural development and to improve the quality of living there. Our Working Group also examined the above scheme in relation to its potential for providing employment to engineers and other technical and non-technical personnel. We are of the view that the scheme for the setting up of planning and design units should be taken up along with ground-water investigation in all States for the success of the rural water supply schemes in future. The survey of ground-water resources in the country is at present far from complete in many States in which a large number of villages face the problem of non-availability of drinking water within the depth of 50 feet or a distance of one mile. Many villages suffer from inadequate water supply particularly in the localities inhabited by Harijans and backward classes. Further, there are also many villages suffering from diseases like cholera, guinea-worm, etc., for which provision of protected water supply is urgently necessary. According to an estimate given by the Planning Commission about 150,000 villages out of a total of 567,000 continue to suffer from water scarcity, health hazards, or special problems such as salinity, iron, fluorides, etc.

5.18 This scheme envisages the preparation of 400 rural water supply schemes to cover 6,150 villages per year. Under the scheme each of the States of Andhra Pradesh, Bihar, Maharashtra, Mysore, Orissa and Tamil Nadu would be employing 22 engineers with the complement of other staff while in the States of Madhya Pradesh, Rajasthan and Uttar Pradesh, where the problems of inadequate water supply are more complex the number of engineers employed will be 45 with the necessary staff. The scheme will help in relieving unemployment among engineers, other technically qualified personnel and other persons. It will also bring about an improvement in the infra-structural facilities of the villages and indirectly assist in generating greater economic activity. Thus the social benefits accruing from the scheme would be of much higher order. This apart, the programme of rural housing

*Paras 48-53

discussed by us elsewhere would also receive considerable stimulus from the improved availability of potable water in the rural areas. We consider that the entire issue relating to the preparation of schemes for rural water supply and the setting up of planning and design units should receive greater attention in the future than it has received in the past, and that investigation divisions/planning and design units should be set up in each State to handle this work adequately.

5.19 A noteworthy development in regard to the creation of employment opportunities is the recent announcement made by the Finance Minister when presenting the budget for the year 1973-74 regarding new programmes which will generate employment opportunities for an additional half a million educated persons in various fields. For this purpose a provision of Rs. 100 crores has been made in the budget for the year 1973-74. The details of the programmes would no doubt be worked out by the appropriate Ministries of Government. We would like here only to observe that in making allocations out of this fund the need for widespread diffusion of the benefits of the schemes should be kept prominently in view and in particular the needs and requirements of the backward areas and tracts of the country should receive adequate attention. Further, we feel that the benefits accruing from some of the employment-oriented programmes initiated during the Fourth Plan such as SFDA, MFAL, CSRE, etc., should continue to be available to the people in the rural areas during the Fifth Plan period. For this purpose the question of continuance of such of these schemes, as are found to have sufficient potential for employment generation, should be considered during the Fifth Plan either as specific programmes or as part of some other Plan programme.

5.20 After this cursory review of some of the more important employment-oriented schemes which are being executed as part of the Fourth Plan, we would like to discuss in the succeeding paragraphs the important Plan programmes which have, comparatively speaking, greater employment potential. We are of the view that the requisite emphasis on their timely and speedy execution and their expansion/acceleration, subject to the availability of resources, would contribute a great deal to the generation of employment in the country while at the same time assisting in its economic development. In laying emphasis on these schemes, we are by no means oblivious of the importance to the national

economy, or of the employment potential, of other schemes included in the Plan; as a matter of fact, all schemes of economic development have a certain employment potential and they contribute to the growth of the economy. But the justification for laying more emphasis on the schemes suggested below is their greater employment potential in general. In this connection it will be relevant to mention that some of the more important programmes falling under the sectors of agriculture, industry as well as education have been discussed in the relevant chapters, while in the present chapter we would confine our attention to some important programmes in the other sectors.

(i) Major and Medium Irrigation Schemes

5.21 In the chapter on Agriculture, we have discussed the employment generation potentials of irrigation programmes, especially that of minor irrigation. We have pointed out that these programmes generate employment not only during the construction phase, but also during the subsequent operational and production phases. The introduction of irrigation in agriculture involves the utilisation of more labour in the cultivation of the same crop, leads to changes in the cropping pattern and increased intensity of cultivation. While the benefits from minor irrigation start flowing almost immediately, the scope for its expansion in various areas is limited and would have to be supplemented by the construction of major and medium irrigation works. Our Working Group on Agriculture estimated that an expenditure of rupees one crore on major and medium irrigation programmes, during 1969-74, would generate nearly 3,350 man-year units of employment in the construction phase and 96 man-year units per year during the maintenance or operational phase. The Central Water and Power Commission have, on the other hand, assessed that the average employment resulting from an outlay of rupees one crore during the Fourth Plan would be about 4,300 man-years.

5.22 The employment generation capacity of the major and medium irrigation works is not limited only to their construction and maintenance phases or to the increased production from agricultural operations, but such works also have widespread beneficial effects on employment in other sectors. Thus in assessing the sum total of the benefits derived from a multipurpose river valley project, those accruing to the area from the additional availability of hydro-electric power

would also have to be taken into account. Later in this chapter we are discussing the employment and income benefits accruing from the electrification in the rural areas as also the adverse effects resulting from the shortage of power in the country during the current season on agricultural as well as industrial production and on employment. In addition to providing electricity, the multi-purpose projects promote the growth of other economic activities also. For example, the reservoirs and canal systems offer scope for the development of pisciculture; the setting up of tourist resorts and places of recreation, the development of inland water navigation, etc. Further, schemes of afforestation and soil conservation in the catchment areas as well as of land shaping and soil conservation in the areas under command are necessary adjuncts of all river valley projects and their execution and maintenance would provide additional employment on a long-term basis for large numbers of people.

5.23 At the commencement of the Fourth Plan, 60 major schemes including river valley projects and 157 medium schemes were at different stages of construction from the earlier Plans. It was envisaged in the Fourth Plan that all the continuing medium schemes would be completed and that many of the major projects on which appreciable progress had been made would either be completed or would start yielding benefits by the end of the Plan period. It was thus expected that 38 major schemes would be completed or start yielding benefits, while 22 schemes would spill over further into the Fifth Plan. We understand, however, that only 15 major and 70 medium projects are likely to be completed by the end of the Fourth Plan, leaving 45 major and 87 medium schemes to spill over into the Fifth Plan. Among the river valley projects under construction during the Fourth Plan, some projects like Purna, Ukai and Hasdeo are likely to be completed by the end of the Fourth Plan while some others like Kosi, Chambal, Tungabhadra (Mysore), Beas and Ramganga projects are not likely to be completed in the Fourth Plan period and would continue into the Fifth Plan. In addition, certain new schemes involving a total cost of Rs. 650 crores were to be taken up during the Fourth Plan, and an expenditure of Rs. 34 crores would have been incurred on some of these during the first three years of the Plan. As a result of many schemes not being completed as originally envisaged, the irrigation potential which was expected to

increase from 18.5 million hectares to 23.3 million hectares during the Plan period is now likely to reach a level of only 22 million hectares by March, 1974.

5.24 A number of factors have contributed to the delay in the completion of these schemes during the Fourth Plan. These include, we understand, the inadequate provision of funds and the non-availability in required quantities of construction materials like steel and cement and of spare parts for machinery. We feel that adequate provision of funds should be made for such continuing projects from year to year so that they are completed according to schedule and the benefits expected from them begin to accrue without delay to the regions concerned. We further understand that some of the reasons for delay in the execution of these projects are the increase in project costs due to rise in costs of materials, labour, etc., and the modifications found necessary in the scope of the project at a subsequent stage as also the revision of the projects due to the non-inclusion of some essential items in the original project proposals. In this connection, we would like to refer to certain observations of the Irrigation Commission on this subject, an extract of which is given below:—

“Large irrigation projects involve a number of major policy decisions, some socio-economic and some technical. It is important that in formulating a scheme, these decisions should be taken at the earliest and at a competent level, so that the waste of effort involved in making subsequent changes is avoided. Early confirmation should be obtained regarding the mode of irrigation, whether intensive or extensive, the extent of lift irrigation to be provided and the conjunctive use of ground water”.*

We are inclined to agree with these sound observations made by the Irrigation Commission and we consider that they should be given due consideration in formulating and preparing the project reports, etc., of the major irrigation schemes to be taken up in future as well as in the review of the existing projects under construction so that the necessary policy decisions on important aspects of the projects are taken in good time.

5.25 The ultimate irrigation potential of major and medium irrigation schemes is estimated to be about 56 million hectares. Out of this, about 22 million hectares would be recovered by the end of the Fourth Plan, and there would still be scope for further projects

*Report of the Irrigation Commission, Volume I, Page 91, para 5.24.

to cover nearly 34 million hectares. However, due to the massive outlay required, the completion of all these projects would take a very long period, extending over two decades or more. Nevertheless, we feel that during the Fifth Plan, efforts should be directed towards the completion of all the projects already taken up and also the execution of new projects so as to create an additional irrigation potential of about 6 to 7 million hectares by the end of the Fifth Plan, and that larger programmes may be undertaken in subsequent Plans also. The construction of these projects as well as their maintenance in future would provide scope for employment of a large number of persons, both technical and non-technical, and for agricultural development in the large areas brought under irrigation command. These would also lead to increased utilisation of agricultural labour, and raise the levels of living of large sections of the rural community. Besides, the quality of life in general in rural areas would improve as a result of the wealth generated by agricultural development and other related activities.

5.26 We would also like to refer to the investigations that are proposed to be undertaken for the National Water Grid scheme. The scheme proposes to divert annually a quantity of 10 to 20 million acre feet of surplus water from the Ganga through the rivers of Central India viz., Son, Narmada, Tapti, Mahanadi, Godavari, Krishna and ultimately to the Mettur reservoir on the Cauvery river. Branch channels are also proposed to be constructed to feed areas en route in Maharashtra, Mysore and Tamil Nadu. The total length of the canals would be about 2,100 miles up to the Mettur reservoir, and according to the estimates made in the Ministry of Irrigation and Power in 1970, the cost of the scheme would be about Rs. 2,000 crores. In view of the gigantic size of the project, it is expected that the actual functioning of the Grid may become possible only by the end of this century. Detailed surveys would have to be undertaken to examine the technical feasibility of diversion of the surplus water from the Ganga and investigations including topographical and geological surveys, hydrological investigations, reservoir area surveys, soil surveys, etc., would have to be undertaken. These investigations alone would extend over a period of about 8 to 10 years and are expected to involve an expenditure of

Rs. 25 crores. They are likely to provide employment to about 1,500 technical personnel, 800 skilled labour and 4,000 unskilled labour annually. When completed the Grid would provide more assured irrigation facilities in a large part of the dry areas of Maharashtra and Mysore and also mitigate the uncertainties of rainfall in the low rainfall areas of the southern States. In view of the very large benefits likely to flow from the operation of this scheme we feel, that Government should consider the desirability of undertaking such detailed surveys as may be necessary for assessing the technical feasibility of the project as early as possible.

5.27 The provision of irrigation facilities to large areas under major and medium irrigation projects leads to a rapid increase in agricultural production and the general development of economic activity in these areas. In order to derive full benefits from such development, it is necessary to undertake schemes of area development in the command areas for the establishment of market centres and the provision of infrastructural facilities such as link roads, storage godowns, etc. During the Fourth Plan, area development schemes of this type were taken up for the command areas of ten major irrigation projects* and an amount of Rs. 15 crores was provided for this purpose. As a result of the mid-term appraisal of the Fourth Plan, it was decided that seven** other major projects should also be included in the programme with an outlay of Rs. 5 crores during 1972-73 and 1973-74. The total provision for such projects in the Fourth Plan was raised to Rs. 22 crores. Besides the provision of market centres, link roads, etc., under these area development projects, attention would also need to be given to other aspects of agricultural development in these areas such as arrangements for the supply of inputs like improved seeds, fertilisers and pesticides, supply of credit, provision of custom services, etc. In view of the importance of such area development programmes for the speedy and effective utilisation of the irrigation potential created by the projects, we feel that such programmes need to be taken up in all the major and medium projects which have been completed so far as well as in those which are under construction or may be taken up in future. Such programmes should, however, be initiated sufficiently in advance of

*Tungabhadra, Nagarjunasagar, Kosi, Kangsati, Rajasthan Canal, Mahi-Kadana, Tawa, Jayakwadi Stage I, Cauvery Delta and Pochampad.

**Son (Bihar), Shetrunji (Gujarat), Salandi (Orissa), Purna (Maharashtra), Gandak (Uttar Pradesh and Bihar), Chambal (Madhya Pradesh & Rajasthan), Tungabhadra (Andhra Pradesh).

the completion of the irrigation works so that the development of irrigation and other facilities can be fully utilised within as short a period as possible after the completion of the projects.

(ii) Power Schemes

5.28 In our Interim Report we laid emphasis on the significance of rural electrification as one of the important short-term programmes. In doing this, we were largely guided by the experience gained in the transformation of agriculture through the extension of irrigation with electrically operated pumpsets/tubewells resulting in greater intensity of cropping and larger employment opportunities. In addition to the outlay already provided for rural electrification in the Fourth Plan as well as the resources earmarked for the Rural Electrification Corporation (REC), we had recommended a net additional outlay of Rs. 235 crores for stepping up the programme of rural electrification in 1972-73 and 1973-74. Out of this amount, Government budgetary resources were to provide Rs. 100 crores, the balance of Rs. 135 crores being provided by the financial institutions. This sum was intended for the electrification of 37,000 additional villages along with the installation of three lakh pumpsets, over and above the Plan target of 15 lakh pumpsets.

5.29 Against the Fourth Plan target of installed generating capacity of 23 million KW, it is expected that only about 20.2 million KW would be created by the end of March, 1974. According to the paper, "An Approach to the Fifth Plan" Rs. 5,700 crores are likely to be provided for the programme of power generation including transmission and rural electrification during the Fifth Plan period.

5.30 Our Working Group have observed that the higher consumption of electricity not only results in increasing the physical output both in small scale industry and agriculture, but also confers several indirect benefits, and in this connection they have referred to the "Report on Evaluation of the Rural Electrification Programme (1965)" of the Programme Evaluation Organisation (PEO) of the Planning Commission. The aforesaid report has brought out that whole-time and part-time employment goes up in operations such as cereal processing, oilseeds crushing, sugarcane crushing, tobacco processing, cotton ginning and carding, saw milling, power looms, etc. There is also the direct

effect of electrification on profits from agro-based industries. The programme of rural electrification has acquired a new momentum since its last evaluation owing to the introduction of new technology in agriculture.

5.31 In our Interim Report we had mentioned our intention of getting an empirical assessment made of the impact of the programmes of rural electrification on employment in the rural areas. In pursuance of this, we had entrusted a study on the subject to the Administrative Staff College of India, Hyderabad, who submitted a report covering selected villages in Andhra Pradesh, Uttar Pradesh and West Bengal. According to this study the impact of rural electrification on employment is not quite conclusive. However, its impact is likely to be of a positive nature when increased irrigation coupled with the application of inputs like HYV seeds, manures and fertilizers, etc., precedes it. The study has shown that on an average the increase in employment is about two months for one person for an increase of one acre in the area under minor irrigation. The other aspects of the spread effects of rural electrification in stepping up activities in the secondary and tertiary sectors have not, however, been covered in the study. More studies in depth would, in our view, be required for arriving at a better assessment of employment generation. In the circumstances stated above, we would agree with our Working Group that a further evaluation of employment generation through rural electrification since 1965 might be undertaken by the Programme Evaluation Organisation of the Planning Commission.

5.32 We have referred earlier to the significance of electricity in the context of the new agricultural strategy. It gives a boost to agricultural production by making possible the exploitation of water resources, particularly ground-water. It makes for intensity of cultivation and multiple cropping thereby increasing new avenues for employment. It also hastens the introduction of small scale and agro-based industries in the rural areas and in small towns, which can add to the incomes of the weaker sections of the rural population particularly during the off-seasons. Besides, the acceleration of the rate of industrial growth, which is being emphasised elsewhere, would directly depend on the availability in adequate quantities of power to run the wheels of our industries. The shortage of power which is widespread in the country and which is having adverse repercussions on the growth of industrial production, on the transport of goods and services and indirectly

on the price levels is a pointer to the imperative need for having adequate power supply available for both industry and agriculture. In order to ensure adequate availability of power, it will be necessary to provide for some cushion in the generating capacity of our power units. This is particularly important in a situation like the present scarcity when the generating capacity of hydel power plants has declined considerably due to current drought, while at the same time the demand of power for normal agricultural operations has registered substantial increase. The extra generating capacity would help increase besides the normal demand of power for running industries, the availability of electricity at a short notice for operating tubewells, pumpsets, etc., thereby keeping up the level of agricultural production. The present situation of power shortage created by the failure and erratic behaviour of the monsoon has demonstrated the difficulties arising from the dependence of many parts of the country on hydro-electric sources of power with comparatively less generation of power from thermal stations. We feel that it is desirable that the programme of power generation should be so planned that a sufficient proportion of the total capacity is created in the form of thermal power stations in different parts of the country. In this connection the feasibility of setting up large thermal power stations at the pit-heads in the coal belt areas needs to be examined so that the electric power could be generated in the areas where coal is available in an abundant measure and transmitted to distant regions of the country where there may be shortages of power.

Besides the direct dependence of the agricultural and industrial sectors on an adequate supply of power, rural electrification in particular confers other intangible and indirect benefits on the people of the rural areas. It has a welcome effect on the time schedule of agricultural operations due to greater flexibility in the hours of work. It also brings about an improvement in the reading habits of the people and promotes greater participation by them in community life and institutions and generally contributes to the improvement of the quality of life in the rural areas. While planning, it will be necessary to lay emphasis on schemes of power generation and acceleration of rural electrification

programmes particularly in the backward areas so as to bring them into line at least with the national average. In the paper entitled "Approach to the Fifth Plan" it is proposed that the target for rural electrification would be to extend its coverage to at least 30 to 40 per cent of the rural population in every State. While this would be an appropriate objective for the Fifth Plan we feel that in a long-term perspective the objective should be to reach almost all the villages in the country within a reasonable period of about 10 to 15 years.

(iii) Railways

5.33 Under the transport sector, programmes like the laying of new railway lines, the doubling of existing tracks and the conversion of narrower into broader gauges, have considerable potential for employment as labour forms 15 to 35 per cent of the cost of new constructions and 3 to 10 per cent of the cost of conversion projects.* A long-term programme of converting 1,500 kilometers of metre gauge lines into broad gauge lines was to be taken up for execution at the beginning of the Fourth Plan, of which 750 kilometres were expected to be completed during the Plan period. The main objective was to "extend the broad gauge system to areas of intensive economic development and high traffic potential"**. The doubling of track was proposed to be carried out on 1,800 kilometres. This included about 550 kilometres on which work was in progress at the beginning of the Fourth Plan period. The sections to be taken up for doubling were to be determined on the basis of their traffic and the financial justification.

5.34 At the beginning of the Fourth Plan period, work was in progress on the construction of a number of new railway lines extending over a length of 1,022 kilometres. Besides making provision for these lines, the Fourth Plan provided for a limited programme of new lines mainly to meet the needs of basic and heavy industries and of the traffic in minerals like coal and iron ore. In view of the heavy investment involved in the construction of new lines, it was proposed to consider the traffic and economic justification of each proposal and to take into account the relative economics of alternative modes of transport, specially road transport.

*Source : Ministry of Railways.

**Fourth Five Year Plan—Page 343.

5.35 According to the latest available details, *the conversion of 326 route kilometres from metre to broad gauge has been completed so far and further conversion schemes totalling about 1,600 kilometres have been sanctioned. Besides, 724 route kilometres of track have been doubled and it is expected that the doubling of 700 more kilometres would be completed by the end of the Fourth Plan.

5.36 We feel that some of the programmes of the railways are highly labour-intensive and they could, if executed according to the time schedule, generate employment of a sizeable order both during the course of their construction as also during the subsequent operational period. Major programmes of railways have been taken up or are contemplated as a matter of public policy. In the case of doubling of the railway track, there is an insistent demand for speeding up the movement of traffic and for improving the operational efficiency of the railways. Similarly, in the case of conversion of narrower gauges into broader ones, there is a strong public demand because this helps in reducing the difficulties involved in transshipment due to change of gauges, increases the traffic carrying capacity of the railways and reduce bottlenecks and the consequent delays in marshalling yards and other operation centres. We consider it of importance that such programmes should be undertaken on a larger scale in future years and a higher priority should be accorded to them.

5.37 The spread of industrialisation and the wide dispersal of industries require that the existing network of railway lines should be strengthened over those sections where at present the traffic carrying capacity is inadequate, so as to facilitate the transport of the increasing volume of raw materials as well as finished products the bulk of which would have to be carried by the railways.

(iv) Road Construction and Road Transport

5.38 A system of roads and rural communications serving adequately the needs of the rural areas is an essential infrastructure for such areas. The provision of roads and improvements of rural communications would bring the rural areas within the fold of market economy and quicken the pace of economic development in these areas. Besides, the construction of roads involves the use of

labour intensive techniques and provides jobs even to persons with lower skills. A massive programme of road construction particularly designed to link the rural areas has a significant role to play in increasing employment opportunities in the rural areas. Roads have the advantage of reaching the farthest nook and corner of the country thereby contributing greatly towards quickening the pace of economic development and bringing about the dispersal of economic activity.

5.39 Road development programmes since the commencement of the Third Plan were governed by the twenty-year road development plan (1961-81) prepared by the Chief Engineers. This plan@ suggested the following targets for development of all types of roads to attain which a further investment of Rs. 5,200 crores would have to be made over a period of twenty years :—

	Mileage		**
	As expected on 1-4-61	Targets proposed in the plan	Cost in crores of rupees
(1)	(2)	(3)	(4)
<i>Main Roads—</i>			
National highways .	13,800	32,000	980
State highways .	35,000	70,000	1,580
Major district roads .	95,200	1,50,000	1,360
SUB-TOTAL	1,44,000	2,52,000	3,920
<i>Other Roads—</i>			
Other district roads .	78,300	1,80,000	650
Village roads (Classified)	1,56,700	2,25,000	630
SUB-TOTAL .	2,35,000	4,05,000	1,280
TOTAL .	3,79,000	6,57,000	5,200

With progressive phasing of the programme, the annual expenditure was expected to increase from Rs. 80 crores in 1961-62 to Rs. 440 crores in 1980-81 involving an annual step up of Rs. 19 crores in expenditure.

*Para 36 of the Railway Minister's speech in the Lok Sabha on February 20, 1973—presenting the Railway Budget for 1973-74.

**Based on 1958 rates.

@Report of Chief Engineers on Road Development Plan for India (1961—1981), page 32.

5.40 Had a programme of road development on these lines been adopted and implemented according to schedule, an expenditure of Rs. 2,525 crores would have been incurred by 1973-74. As against this, the actual expenditure from 1961-62 to 1968-69 together with the anticipated expenditure during the Fourth Plan is expected to amount to Rs. 1,520 crores. In view of the importance of road communications as an essential part of the infrastructure for socio-economic development, we feel that efforts should be made to adhere to the programme for completion of the construction of these roads worked out in the Chief Engineers' Plan. In order that the expenditure of Rs. 3,920 crores on main roads as envisaged in that plan is completed in time, it would be necessary to undertake a programme of the order of Rs. 2,400 crores for the construction of such roads in the remaining years upto 1980-81. We, therefore,

(a) Other district roads : 2,30,400 kms (1,44,000* miles) at a cost of Rs. 895 crores

(b) Village roads . : 3,24,000 kms (2,02,500** miles) at a cost of Rs. 535 crores

5,54,400 kms (3,46,500 miles) at a cost of Rs. 1,430 crores.

The total cost of this programme was thus estimated at Rs. 1,430 crores. However, the total expenditure on rural roads during the Fourth Plan is likely to be of the order of Rs. 50 crores only. We feel that in regard to rural roads the tempo of construction needs to be stepped up substantially so as to complete the programme originally envisaged in the reappraisal by the Sinha Committee at least by the end of the Sixth Plan, i.e., by 1983-84 instead of in 1988-89. In order to attain this target, we would suggest that the outlay during the Fifth Plan may be of the order of Rs. 650 crores while that during the Sixth Plan may be Rs. 730 crores making a total of Rs. 1,380 crores. We have dealt with this subject further in the chapter on Agriculture (vide paras 7.56 to 7.59).

5.42 While the expenditure of Rs. 2,400 crores on main roads and Rs. 1,380 crores on other roads during the Fifth and Sixth Plans would thus conform to the order of expenditure envisaged in the Chief Engineers' plan

suggest that a suitably phased programme over the seven year period from 1974-75 to 1980-81 may be undertaken with an outlay commencing at the level of Rs. 300 crores in 1974-75 and rising progressively to about Rs. 380 crores in 1980-81.

5.41 As regards other roads (including other district roads and village roads) the Chief Engineers' plan envisaged over a twenty-year period an increase of 1.70 lakh miles involving a cost of Rs. 1,280 crores. The Sinha Committee@ which reappraised the requirements of rural roads@@ in 1968, observed that most of the old works had disintegrated due to lack of maintenance and that in order to reach the targets indicated in the Chief Engineers' plan, the additional new construction of roads would be required as follows:—

and by the Sinha Committee, the physical achievement would be of a much lower order in view of the considerable rise in the prices meanwhile. If the physical targets originally envisaged have to be achieved, the above financial outlays would need to be suitably adjusted.

5.43 As regards the employment potential of the programme, it may be stated that an earlier estimate made by the Planning Commission in 1960-61 had indicated that an investment of rupees one crore would generate 10,453 man-years of employment in road construction. On account of the considerable rise in prices since that time, the same investment would generate, in terms of current prices, roughly 4,815 man-years of employment. Applying this suggested norm an additional employment of about 13.63 lakh man-years may be expected from the programme during the period of the Fifth Plan. The employment potential over the eight year period would thus be around 18.63 lakh man-years.

@Report of the Committee on Rural Roads, 1968, pages 10—11.

@@'Rural roads' here has the same connotation as 'other roads' in the Chief Engineers' plan.

*Total requirement of other district roads was 1,80,000 miles and 20 per cent of this length was assumed to be already on ground in good condition.

**Total requirement was 2,25,000 miles, and 10 per cent of this length was assumed to be already on ground in good condition.

5.44 Road development in India has, despite its multifarious benefits, not kept pace with the requirement of the economy. Our Working Group has expressed the view that the proceeds of vehicle licensing, registration taxes, fuel oil duties, import duties on motor vehicles and driving licence receipts should be credited to a non-lapsable fund which should be utilised for the development and maintenance of roads. As is well known there is already in existence a Central Road Fund to which part of the revenues from customs and excise duties on motor spirits are being credited. We feel that while a larger outlay for the development of roads is essential, the question of constituting a new non-lapsable fund would not be free from difficulties. However, we consider that the suggestion made by our Working Group may be examined. A possible approach might be to consider the augmentation of the resources of the existing central road fund by transfer of a larger share of the revenues from the customs and excise duties on motor spirit.

5.45 Besides road construction, the road transport industry would also offer great scope for employment generation. For instance, it is estimated that one passenger bus on the road, gives employment, on an average, to 11 persons, while a truck for the carriage of goods provides jobs for 15 persons. With the growth of the road transport industry, the other linked industries such as automobile manufacturing, motor repairing, overhauling and servicing facilities, paints and varnishes, hotels, motels and other catering industries also receive a stimulus. The Fourth Plan had estimated that in order to cater for the increase in traffic, the number of trucks on the road would need to be increased from about 300,000 in 1968-69 to 470,000 at the end of 1973-74 and the number of buses from 85,000 to 115,000.

5.46 The development of road transport and the connected industries in this country would have a large employment potential over the years. As a matter of fact, as the economy of a country develops, road transport acquires a greater importance and priority, because its expansion has a multiplier effect not only on the economic activities directly connected with it like the manufacture of automobiles and commercial vehicles, but also on other services and activities like tourism, the development of trade, greater mobility of the people, etc. Further, the development of the automobile industry would in turn lead to the expansion or establishment of ancillary and feeder indus-

tries to supply the large number of parts, components and other items required by the industry. As a matter of fact the development of a large automobile industry could have a snowballing effect on the rate of employment generation. It is stated that in some of the advanced countries, for example, the USA, one out of every six jobs is directly related to the automobile industry and one job out of seven in highway transportation. So, the need for development of road transport and of the connected automobile industry has to be viewed in this perspective, and due emphasis laid on their promotion and development.

5.47 The metropolitan cities in the country are, at present handicapped in the matter of providing suitable transport facilities in their areas because of the non-availability or inadequacy of transport vehicles or spares, replacements, etc. The metropolitan cities of Bombay, Calcutta, Delhi and Madras have special problems due to the rapidly increasing traffic. In addition to Rs. 6 crores for Madras, a provision of Rs. 13.28 crores was made in the Fourth Plan for road programmes in other metropolitan areas. Due to financial constraints and delays in land acquisition, clearance of hutment dwellers, etc., the progress in this regard has, so far, been very slow. We agree with the recommendation of our Working Group that the implementation of these schemes should be speeded up and that studies should also be made of the transportation and traffic problems of some of the other growing cities in the country like Bangalore, Hyderabad, Ahmadabad, Kanpur and Poona.

(v) Shipping and Ports

5.48 At present Indian ships are estimated* to have a share of about 40 to 45 per cent in the liner trade of the country while their share in the bulk carrier and tramp trade is much smaller i.e. about 9 to 10 per cent. Since the trade in bulk commodities forms about two-thirds of the country's foreign trade the overall share of Indian shipping in overseas trade came to about 20 per cent in 1970-71.

5.49 The attainment of self-reliance is one of the major objectives of the Fifth Plan. Elsewhere we are referring to the importance of the development of our export trade with a view to increasing our earnings of foreign exchange. It is essential for attaining both these objectives that a much larger proportion than at present of India's overseas trade should be carried in Indian bottoms and that India

*Report 1971-72, Ministry of Shipping and Transport, Page 5.

should be increasingly in a position to build the ships required for her needs so that the outflow of foreign exchange resources on this account might be minimised. The growth of coastal shipping is also necessary in the context of the increased industrial production and the economic development of the country so as to supplement transport by road and rail which is comparatively more costly. Besides, the process of ship-building being greatly labour-intensive, can help create a large volume of employment. Not only that but since the components, raw materials, etc., required for ship building are very numerous and vary greatly in range and complexity, the growth of this industry will lead to the development of a sizeable ancillary industry to supply the parts and spares required by it. Moreover, it will also lead to the establishment of the manufacture of some of the specialised types of steel and a number of other complicated items of machinery and equipment which are not being manufactured in the country at present. Viewed from all these angles the development of the ship-building industry is of importance.

5.50 In the Fourth Plan an amount of Rs. 140 crores has been provided mainly for the purchase of new ships to increase the tonnage of the country. In addition, a provision of Rs. 41 crores has been made for the development of ship-building at Cochin, Vishakhapatnam, etc. As already mentioned, the increased volume of foreign trade envisaged in the Fifth Plan would require a greater proportion of the import and export traffic to be carried in Indian ships, and for this purpose an adequate outlay for the purchase or construction of ships would also be required in the Fifth Plan. On account of the modern trends in the construction of ships, a larger outlay of capital would be needed for acquiring and building ships having modern facilities. The increased outlay on the development of shipping would help the country in its progress towards self-reliance and in the earning of foreign exchange, and would generate additional resources from the increased traffic earnings, both for the further expansion of shipping as well for general economic development. The capacity of the existing ship-building yards as well as the dry dock and repair facilities for ships would have to be expanded and it would also be necessary to establish new ship-building yards and additional dry-docking and repair facilities, so that an increasingly large proportion of the new ships is built within the country and adequate facilities for repairs, etc., are provided to cater to the needs of the large number of ships calling at Indian ports. In view of these considerations, we feel that long-

term programmes of developing the ship-building and repair facilities in the country should be undertaken.

5.51 Closely allied to shipping and as a necessary concomitant thereto is the development of port facilities. For handling the increasing cargo, particularly export cargoes in accordance with the rate of growth envisaged at present, it is necessary that the cargo handling facilities at the ports and haulage and transport facilities in the port areas, etc., are provided and expanded sufficiently. Special care would be required also to cater to the changed requirements arising out of the replacement of largely traditional items of export by the new articles and commodities which are expected to occupy a larger share of India's export trade. Further, the type of facilities required for handling the cargo coming in the ships of larger tonnages built according to modern trends of containerisation also require that the berthing capacity and the maximum draft of ships which are entering the ports, etc., should be adequate to cater to the needs of cargo ships of larger sizes expected to call at our ports. Sufficient outlay also requires to be provided for the development of intermediate and minor ports so that the establishment of industries in the several areas served by such ports is facilitated. This will help those industries to participate better in the export effort by eliminating the higher costs of transport to distant major ports as at present.

(vi) Inland Water Transport

5.52 Inland water transport has considerable employment potential in a number of States including Assam, Jammu and Kashmir, Goa, Kerala and West Bengal. However, due to lack of proper maintenance of navigable waterways and inadequate organisation of inland water transport, the scope for employment in this sector has not been fully utilised. For this purpose it is necessary to undertake a planned and systematic development of inland water transport in the country as has been done in a number of developed countries. For instance, we understand that in the USA the domestic water borne commerce exclusive of the Great Lakes constitutes as much as about 16 per cent of that country's total traffic and the Federal Government spends about \$ 200 million every year on channel maintenance alone.

5.53 There is no doubt that the systematic development of inland water transport can bring large social and economic benefits. Apart from assisting in the transportation of goods and passengers at cheaper cost, inland water

transport provides many employment opportunities for a large number of persons including those working at the ports as well as those engaged in construction and operation of boats and those required for channel conservancy. Besides the regions in which inland water transport is developed also benefit due to the multiplier effect of such traffic in the sectors providing port services, mercantile facilities like marine insurance and banking and also due to the development of the industrial and commercial enterprises which benefit the economy of such regions and generate many employment opportunities and social benefits. The development of inland water transport would require the services of a large number of experts and technically trained persons having expertise in a number of specialised fields for which additional training facilities would also require to be developed.

5.54 As mentioned in our Interim Report the Inland Water Transport Committee had made a number of recommendations bearing on the generation of employment in this sector of economic activity. These related to the improvement of production of certain ship building yards by installing modern equipment, the replacement of old crafts, evolving of standard designs of hulls and propelling machinery, the deepening and widening of certain important canals, channel conservancy, etc. We understand that a number of these recommendations remain to be implemented. We feel that early consideration should be given to the remaining recommendations of the Committee. The lack of suitable organisations in the riverine States is, we understand, one of the reasons for the slow progress of the schemes recommended by that Committee. We recommend that the question of speedy establishment of such organisations should be taken up. We would also suggest that some pilot studies may be undertaken by suitable organisations regarding the social cost-benefit aspects of the development of inland water transport in different regions.

(vii) Tourism

5.55 The significance to the national economy as also the employment potential of the tourist industry do not appear to have received adequate recognition. The industry cannot only increase, to a considerable extent, the earnings of foreign exchange by attracting a large number of foreign tourists but also create sizeable job opportunities in the services sector, for example, in transport, in catering and hotel establishments and in the supply of goods and services required by the tourists, such as tourist guides, sales of works of arts, etc. We

are referring elsewhere in this Report to the great potential tourism has for augmenting the earning of foreign exchange. Here we would like to emphasise that this industry, if developed adequately, can increase employment considerably particularly in the services sector.

5.56 An integrated development of the tourist industry could provide not only substantial direct employment but also indirect employment through backward and forward linkages. The provision of a chain of hotels and motels is a prerequisite of an integrated development of the tourist industry. According to the estimates made by the Department of Tourism, about 8,00,000 foreign tourists per year would be visiting the country by the end of the Fifth Plan. This would require an additional provision of 32,800 rooms in approved hotels to cater to the increased inflow of foreign tourists. The Hotel Development Loan Scheme initiated in 1963 has approved loans totalling Rs. 12.34 crores for 31 hotel projects. It is expected that 12,000 additional rooms in approved hotels would be available by 1974; thus it would be necessary to construct 20,800 additional rooms in approved hotels by the end of the Fifth Plan so as to fulfil the targetted total of 32,800. For this, an investment of the order of Rs. 230 crores would have to be made. On an average, one room is expected to provide employment to 2.5 persons. This would mean that by the end of the Fifth Plan, 82,000 more people would be directly employed in the hotel industry provided the programme of the industry to construct additional 20,800 rooms materialises so as to fulfil the target of 32,800 additional rooms. It is estimated that the connected industries and services, like the industries supplying fresh and canned fruits and other food items, various items of equipment required by the hotels, (e.g., air conditioning equipment, refrigeration and kitchen equipment, washing machines, laundry equipment, etc.) the industries relating to the supply of bed linen, furniture and other items of furnishing and equipment, would offer employment to nine times the number of persons who are employed directly by the hotels. In other words, the provision of 32,800 rooms by the end of the Fifth Plan could provide indirect employment to about 7.38 lakh persons, in addition to the direct employment of 82,000 persons, making a total about 8.20 lakh persons.

5.57 In an overall employment context, development of the hotel industry forms only one of the forward links in the tourist industry and if the indirect employment potential of the hotel industry could be nine times that of

direct employment, the indirect employment potential of the tourist industry could be considerably larger in view of the fact that this industry would require, for its multifarious requirements, a large variety of services and related facilities like travel and publicity agencies, public transport, transport operators, guides, wild life outfitters, official tourist organisation etc., and it would provide custom to a number of industries like cottage industries, handicrafts and other industries producing consumer goods as well as to catering industry like restaurants and motels. Thus, the expansion of the tourist industry along with its connected hotel industry could make considerable contribution to employment generation both direct and indirect and would have a stimulating effect on a wide range of industrial and tertiary activities.

5.58 In our country, besides fostering the visit by foreign tourists, there is also great need for developing internal tourism, for example, visits to hill stations, places of scenic beauty, sea beaches, places of historical and religious importance, etc. This will increase employment opportunities in sectors like railways, road transport, the hotel and catering industries, etc. The growth of this industry will make for greater mutual understanding and greater feeling of national unity and also promote national integration. It is desirable, therefore, that suitable facilities and amenities be provided for the growth of internal tourism at a faster rate.

(viii) Posts and Telegraphs

5.59 The Posts and Telegraphs Department constitutes one of the largest public enterprises run by the Government, employing about 6.05 lakh persons* of whom about 2.05 lakh are part-time workers termed as extra departmental employees. Thus, this department is the second largest employer of civilian personnel under the Central Government, the Railways being the first.

5.60 The postman symbolises the main service rendered by the department for the masses of the people, which is the delivery of their business mail, communications from friends and relations, parcels, money orders, etc., and his services are indispensable to the country in spite of rapid advances in other types of communications. The expansion of the postal services, for which a large number of postmen would be required, would promote greater cohesion of the remote parts of the country and a greater sense of national integration among

its people, particularly when there are a large number of the rural folk migrating steadily to industrial centres and to urban and metropolitan areas in search of work. We are of the view that the extension of post offices to the rural and backward areas will open many job opportunities. We consider that the expansion of postal facilities in the near future in rural areas, and particularly in the backward areas, will be desirable, both from the point of view of linking them up with the urban areas and with the outside world, as also from the point of view of employment. The postal side of the Posts and Telegraphs Department is comparatively more labour-intensive than its other branches, and in the rural areas in particular it has great potential for creating jobs for educated and semi-educated persons in various capacities, e.g., as postmasters, postmen, runners, sorters, etc. The staff for these post offices can be drawn by and large from the rural areas. Also, the expansion of telecommunication services to the rural areas will provide a number of openings for the technical personnel like engineers and mechanics, besides the usual complement of clerical and other staff. In view of the accepted policy of fulfilling the need based demands of the people and the expansion of literacy in rural areas, the expansion of postal and telecommunication services should in our view, receive adequate attention and a programme for the steady expansion, on a long-term basis, of these facilities to rural areas should be adopted for implementation.

(ix) Broadcasting and Television

5.61 The programme for broadcasting envisages the extension of internal broadcasting to cover nearly 80 per cent of the population in the States and union territories by medium wave broadcasts by the end of the Fourth Plan. Similarly, the programme for the extension of television facilities envisages the strengthening of the existing facilities at Delhi, the extension of television to Bombay, Srinagar, Madras, Lucknow and Calcutta and relay stations in certain localities. We understand that the Fifth Plan envisages the extension of television to the capitals of almost all the States. The extension of these facilities and services will have some implications for employment generation. Besides providing jobs directly to the staff employed in the radio/television stations and the other connected facilities, it will create employment opportunities for persons like artistes, musicians, singers, literatures, etc. Besides, it will not only give considerable fillip to the further growth and

*The figures are as on 31st March, 1972.

expansion of industries manufacturing radio receivers, transistor sets, etc., but will also promote the setting up of a nascent industry namely, the manufacture of television sets, parts, components, etc. Since the units to be set up will be mostly in the small scale sector, both the main manufacturing industries and the ancillary industries in this field will receive a shot in the arm, as this industry requires a large number of components and bought-out items which can more conveniently be manufactured in separate units and factory sheds, even in remote cottages and huts. It will thus give a great stimulus to the development of the electronics industry in the country. As a necessary concomitant a number of other facilities and services will also develop in the tertiary sector, e.g., repair and overhaul facilities, sales, transportation, etc., and these are also expected to have a multiplier effect on the generation of employment in these fields.

(x) Family Planning Programmes

5.62 The programme proposed for the Fifth Plan envisages an outlay of Rs. 560 crores against Rs. 315 crores during the Fourth Plan period. This will involve the expansion of family planning services like clinics, bed facilities and medical staff for running these units and centres. The expansion of this activity will create jobs for the medical and paramedical personnel besides other non-technical and clerical personnel, etc. This programme would, however, need to be coordinated with other programmes in the rural areas and with the social welfare programmes like, maternal and child health programmes, nutritional schemes, etc.

(xi) Water Supply Programmes

5.63 In our Interim Report* we had recommended that the programme of rural water supply should be accelerated and its coverage

extended to 21,000 more villages with a total outlay of Rs 61.55 crores (over and above the current plan provision of Rs. 125 crores) during the remaining two years of the Fourth Plan. We had also suggested that the designing of suitable schemes and the preparation of plans and estimates for the remaining scarcity and disadvantaged villages, at a total cost of Rs. 3 crores, should be taken up immediately so that the execution of these works may be undertaken when the resources become available therefor. We have since had a look at the position particularly in the light of the enhanced provision of Rs. 20 crores in 1972-73 and about Rs. 40 crores (anticipated) in 1973-74 for accelerating the rural water supply programmes to cover as many disadvantaged villages as possible.

5.64 Till the end of March, 1971, about 20,000 villages, out of about 5.76 lakh villages, had been provided with piped water supply. It is estimated that by the end of the Fourth Plan about 28,000 villages would be provided with protected water supply. Besides, by that period approximately 8,000 villages in the rocky areas of the country would be provided with water supply by drilling bores with the assistance of the United Nations Children's Fund (UNICEF).

5.65 The provision of supply of potable water to villages in the country is beset with a number of difficulties. Out of 5.76 lakh villages in the country approximately 1.52 lakh are situated in 'problem'** areas and about 4.24 lakh villages in other areas. As indicated above, of the 1.52 lakh villages in these problem areas about 36,000 villages would have been provided with potable water supply by the end of the Fourth Plan period. Thus about 1.16 lakh villages in the problem areas and about 4.24 lakh villages in other areas would require to be provided with pro-

*Pages 32-33.

**The 'problem' areas include difficult and scarcity areas where suitable sources of water supply are not available within a depth of 50 ft. and a distance of one mile, such as villages in hilly and mountainous regions, arid zones and saline tracts and also villages which are suffering from endemic diseases such as cholera, guinea-worm, etc., due to the absence of protected and adequate water supply. The number of villages in such areas included in the 'problem' areas, is as follows :-

(i) with sources fifty feet deep and one mile distance	90,656
(ii) cholera endemic	33,857
(iii) guinea-worm infested	3,184
(iv) with other health problems	24,778
TOTAL	1,52,475
Say:	1.52 lakhs

ected water supply after the Fourth Plan. To finance such a programme, an amount of Rs. 1,900 crores—Rs. 650 crores for the problem areas and Rs. 1,250 crores for the other areas would, it is estimated, be required at the present level of construction costs.

5.66 While reviewing the rural water supply schemes, (in their Mid-term Appraisal, December, 1971) the Planning Commission observed as follows :—

“The level at which the programme of rural water supply is being financed at present needs to be drastically stepped-up, as at this rate it may take 30—40 years before drinking water is made available even to areas which have been suffering permanent disadvantages in this regard. Both for the selection of suitable schemes for implementation and for further acceleration of the programme, it is necessary to get a large shelf of rural water supply schemes ready in the remaining period of the Fourth Plan based on definite resources of water supply.”

5.67 We agree that the pace of execution of the rural water supply schemes needs to be accelerated in view of the magnitude and urgency of the problem. If this problem is to be tackled effectively within a reasonable period of, say, ten years, the expenditure on this programme would require to be stepped up substantially. With a view to meeting the large requirements of this programmes, a much larger outlay than the amount of Rs. 200 crores provided in the Fourth Plan would have to be earmarked for rural water supply schemes during the Fifth and Sixth Plans.

5.68 In the document entitled ‘Approach to the Fifth Plan’ the removal of poverty by providing larger employment and incomes to the poorer sections as well as through the provision of certain minimum standards of social consumption and investment in the form of education, health, drinking water, etc., has been recognised as one of the objectives of the Fifth Plan. The document envisages the expenditure on rural water supply being stepped up to about Rs. 550 crores as against a pro-

vision of about one-third of this amount in the Fourth Plan. It also refers to the need for examining the desirability of setting up a rural water supply corporation on the lines of the Rural Electrification Corporation.

5.69 It is important that the question of providing the basic need of potable water supply to all the villages in the ‘problem’ areas should be accorded a high priority and that adequate provision should be made for covering all such villages during the Fifth Plan itself. It is estimated that such a programme would involve an outlay of about Rs. 650 crores. We feel that considering the acuteness of the problem in these villages, the entire programme should be completed during this period. In addition the question of providing supplementary sources of water supply as well as buttressing up the existing sources of water supply in the villages in other areas would also have to be taken up. For that purpose, suitable programme may be undertaken after the completion of the programme urgently needed for the villages in ‘problem’ areas. A comparatively larger share of this total cost could probably be expected to be contributed by the beneficiaries and by the local panchayati raj bodies. Besides, the public financial institutions like the Life Insurance Corporation could be persuaded to provide financial assistance of a higher order for the execution of this programme.

5.70 It is expected that as a result of the investment of the order of Rs. 650 crores on rural water supply programmes, an additional employment of 1,60,000 man-years, both for engineers and other staff will be generated i.e., employment to 32,000 persons over the period of five years.

5.71 The programmes of provision of water supply in the urban* areas also would provide a basic amenity to the residents of urban areas. The position regarding the provision of water facilities in urban areas is no doubt comparatively better than in the rural areas. It is estimated that by the end of the Fourth Plan, out of an estimated number of 2,921 towns, 1,647 towns covering a total population of 9.05 crores (approximately

*The definition of ‘Urban’ areas as adopted in the 1971 Census was as follows :—

(a) All places with a municipality, corporation or cantonment or notified town areas;

(b) All other places which satisfied the following criteria :—

(i) a minimum population of 5,000;

(ii) at least 75 per cent of male working population is non-agricultural;

(iii) a density of population of at least 400 per sq. km. (i.e. 1,000 per sq. mile).

82.31 per cent of the urban population) would have been provided with safe drinking water supply. The remaining 1,274 towns with a total population of 1.82 crores would require to be provided with protected water supply involving an estimated outlay of the order of Rs. 275 crores. Besides, many of the existing water supply schemes of the 1,647 towns would also require to be improved and modernised and their capacity augmented to meet the requirements of their fast growing populations. All these programmes of water supply in the urban areas would generate considerable employment particularly for engineers and other technical personnel and also indirectly, during the process of manufacture and supply of equipment, materials, stores, etc., which constitute a sizeable percentage of the total cost involved.

(xii) Housing

5.72 Construction activities have an important role to play in generating employment in both the rural and urban areas. A large programme of construction, including public works and rural and urban housing, would generate employment opportunities of a sizeable order, since this industry uses, by and large, labour-intensive techniques. It will have particularly stimulating effect on the rural economy since by generating work opportunities, it will help in dispelling the prevalent stagnation of the rural economy. Through the provision of work in the rural areas, it will promote greater economic activity and also improve the quality of life in these areas; these two factors should assist in stemming the increasing flow of the rural population to the urban areas.

5.73. Quite apart from the rural areas, the rapid growth of metropolitan areas and other urban centres generates a rapidly increasing demand for additional housing as well as for public buildings for educational institutions, hospitals and recreational facilities, for the expanding trade and industry and for other buildings to meet the needs of the governmental administration and local authorities. Considered from these points of view, the construction activity including housing, offers great scope for generating employment, both in the rural and the urban areas.

5.74 In our Interim Report* we referred at some length to the magnitude of the problem of housing in rural areas. At the beginning

of the Fourth Plan, the shortage of pucca houses in rural areas was estimated at 718 lakhs, while the rate of annual construction was, according to the 22nd round of the National Sample Survey (NSS) 0.65 units per thousand persons in 1967-68 or about 2.6 lakh new units. We had expressed the view that taking into account the deplorable housing conditions and the resources generated in those areas by the growth of agricultural production in recent years, efforts should be made to undertake house construction at a rate of 0.8 units per thousand persons or 3.6 lakh new units in 1972-73 and 0.9 per thousand persons or 4.1 lakh units in 1973-74, as against the rate of 0.7 per thousand persons or 3.1 lakh units reached in 1971-72. Thus our proposal envisaged the construction of a total of 7.7 lakh units at an estimated investment of Rs. 230 crores over the next two years. We suggested that a large scale programme of house construction should be launched and promoted by the Government who should also provide the necessary institutional framework. We considered that for this purpose it was necessary that there should be in existence in each State a suitable institutional agency to undertake for the rural areas the functions normally performed by the housing boards for the urban areas, for example, the acquisition and development of land and the formulation and execution of housing schemes. We further recommended the setting up of a Rural Housing Finance Corporation in each State entrusted with the task of providing financial assistance to co-operative societies, panchayati raj institutions and individuals for house construction and suggested that the Housing and Urban Development Corporation (HUDCO) or a separate corporation, if necessary, might function as the apex organisation for financing rural housing.

5.75 Our Working Group which examined this question estimated that in order to remove the backlog of housing, the construction of 6.7 million housing units in the urban areas and 18.1 million units in the rural areas would be needed, involving an investment of Rs. 9,000 crores. In addition, the replacement of old houses as well as the construction of additional units to meet the requirements of the growth in population would necessitate the construction of 1.2 million new units per year in the urban areas and 3.12 million units per year in the rural areas during the Fifth Plan period. The resources required for this programme would be around Rs. 1,600 crores

*Para 43—Page—27.

per year, or Rs. 8,000 crores for the whole Fifth Plan period. While this exercise attempted by our Working Group gives an indication of the dimensions of the housing problem in the country, we feel that in view of the constraint of resources, a programme of a moderate size would be more realistic and could be considered for adoption.

5.76 In the formulation of the Fifth Plan programmes, great emphasis is being laid on the provision of basic minimum needs for the poorer sections of the population. It has been indicated in the paper entitled "Approach to the Fifth Plan" that besides the programmes for employment generation to combat the menace of poverty in the country, a national programme for the provision of social consumption in the form of education, health, drinking water supply, housing, etc., up to a minimum standard will have to be included in the Plan. Among the basic minimum needs of the people have been included the provision of house-sites for landless rural labour and slum improvement in the urban areas. The outlay for housing has been tentatively stepped up to Rs. 925 crores, including Rs. 100 crores for house sites, as against the provision of Rs. 251 crores (revised) in the Fourth Plan.

5.77 Apart from the provision of house-sites for the landless labour in rural areas, there is need for assisting the small and medium farmers and other non-agricultural workers to improve their condition of living by constructing better houses, which would also have the effect of generating employment both in the work of construction and in the supply of materials, transport, etc. There is a keen desire among the people in the rural areas to improve their living conditions including better housing. The ownership of a house increases a person's welfare and sense of well-being and is regarded as a highly prized possession. We consider that a considerable section of the rural community would be in a position to undertake housing if some financial assistance and infrastructural facilities

could be provided and the availability of building materials improved. This would be in addition to the housing which can be undertaken by the more well-to-do inhabitants of rural areas out of their own resources.

5.78 We reiterate our earlier suggestion that it is essential that a large scale programme of construction of rural houses should be undertaken both by the Central and State Governments during the succeeding years. For the purpose of estimation we might take, as the base for the first year of the Fifth Plan, a rate of construction of 0.9 units of housing per thousand persons of the rural population—the rate which was intended by us earlier to be reached in 1973-74. This could be raised progressively to about 1.4 units per thousand persons in 1978-79. The estimated number of houses to be constructed under such a phased programme would be about 2.92 million* involving a total cost of about Rs. 875 crores assuming an average cost of Rs. 3,000 per unit. We feel that out of the total investment of Rs. 875 crores, a sum of the order of Rs. 700 crores could be provided from their own resources by the persons constructing houses leaving sums of the order of Rs. 175 crores to be provided by way of loans through the LIC, the Rural Housing Finance Corporation, commercial banks, etc.

5.79 In addition, the problems of housing would also have to be tackled in the urban areas. In view of the large employment potential of construction activity in those areas, there is a trend towards greater urbanisation of the countryside as revealed by the Census figures. Our urban areas, particularly some of the industrial centres, are increasing in size quite rapidly. Besides the big conglomerations of population in the metropolitan areas, there are a large number of industrial centres and other cities which have registered substantial increases in population. Besides, we have the spectacle of new urban, industrial and growth centres coming up all over

*This figure has been worked out as follows:—

Year of Plan	Rural population (million)	Number of units per 1000 of population	Actual number of houses (lakhs)
1974-75	470.6	1.0	4.70
1975-76	478.9	1.1	5.26
1976-77	487.1	1.2	5.84
1977-78	495.4	1.3	6.43
1978-79	500.4	1.4	7.00
TOTAL			29.23

the country as a result of the increase in agricultural production, the dispersal of industrial activity and the economic development in general. One of the factors impeding the extension of house building activity in urban areas has been the non-availability of suitable sites and the rapid increase in land values, partly as a result of speculative activity. It has been found that wherever developed sites have been provided at reasonable cost with the necessary infrastructural facilities, the house construction activity has shown great expansion and large numbers of persons with limited means have been able to construct houses either individually or in organised groups like cooperative societies, etc. It is, therefore, apparent that an extension of schemes for the provision of developed house-sites under the auspices of the State Housing Boards will accelerate the pace of house construction in urban areas. The programmes of building blocks of flats for the middle and low income groups, to be sold out-right or on hire purchase basis, as is being done by some institutions like the Maharashtra State Housing Board or the Delhi Development Authority, would also help provide housing accommodation for these groups as well as facilitate a speedy amortisation of the loans taken by these organisations from the Life Insurance Corporation of India (LIC) or HUDCO and also enable them to establish revolving funds for financing fresh housing schemes.

5.80 According to the estimates made by the National Buildings Organisation, there would be a backlog in urban housing to the tune of about 6 million units at the beginning of the Fifth Plan while an additional 4 million units would be required to meet the needs of the increase in urban population during the Fifth Plan period. At the present rate of house construction including public as well as private housing in urban areas, it is estimated that about 2.5 million units will be constructed during the Fifth Plan period, that is, an average rate of 0.5 million units per annum. The gross investment in urban residential housing is, we understand, currently running at the rate of about Rs. 1,000 crores per year and with this outlay an estimated number of half a million houses per year are being constructed; this means an average investment of Rs. 20,000 per unit. In view of the objective of providing for basic minimum needs of the community of which housing is an important element, it is desirable to plan for an increased level of house construction activities in the urban areas so as to prevent any deterioration of the position in this respect. We feel that the present rate

of house construction in the urban areas should be stepped up substantially, say by 40 per cent, involving an additional outlay of the order of Rs. 400 crores per year or Rs. 2,000 crores over the Plan period. With this additional investment, it should be reasonably feasible to construct additional houses numbering about 1.35 million, suitably distributed between the public and private sectors. We suggest that out of this total number, the construction of 0.75 million units may be undertaken in the public sector through the agency of the State Housing Boards, etc., while the remaining 0.6 million units may be expected to be put up by individuals and others in the private sector. The bulk of the provision under the public sector scheme should be for the economically backward sections and the low income groups. A tentative distribution of this housing programme in the public sector by various categories is indicated below:—

	Units (Lakhs)	Cost Unit (Rs. 000)	Total expenditure (Rs. cro- res)
(1)	(2)	(3)	(4)
Economically weaker sections	4.00	5	200
Low income groups	3.00	15	450
Medium income groups	0.40	25	100
High income groups	0.14	40	56
TOTAL	7.54 or 7.50		806 or 800

The total investment for such a programme of 0.75 million units may be of the order of Rs. 800 crores. On the other hand, the investment required for putting up 0.6 million units in the private sector would at the average cost of construction of Rs. 20,000 per unit, be of the order of Rs. 1,200 crores. Thus the total investment for the urban housing programme suggested above for the Plan period would be of the order of Rs. 2,000 crores and the number of units expected to be put up will be 1.35 million; which will be over and above 2.5 million units estimated to be constructed during the Fifth Plan.

5.81 Out of the investment of Rs. 800 crores in the public sector for urban housing it may be reasonable to expect that the

institutions like the LIC, HUDCO and nationalised banks would provide the bulk of the investment while some part could also be obtained by way of allotment deposits from the beneficiaries or by the sale or transfer of houses on hire purchase basis to the middle and higher income groups. Further some resources could also be raised by the sale of developed plots to persons desiring to undertake house construction on their own. To enable the State housing boards to undertake schemes for developed plots suitable provision for a revolving fund may be made in the public sector schemes. Resources for this purpose could be provided to the HUDCO and to the state housing boards. As regards the construction of the houses in the private sector, while the bulk of the resources are expected to be provided by the beneficiaries themselves from their own resources, the LIC and the commercial banks would also have to extend their housing finance operations to this field so as to provide support to the increased rate of house construction in the urban areas.

5.32 We may venture here to give a rough idea of the total volume of employment likely to be generated by the housing programme. Assuming the labour content of the proposed investment of Rs. 875 crores in rural housing over the Fifth Plan to be about 30 per cent., the actual investment on labour would work out to Rs. 262.5 crores. Taking the wage of an unskilled worker on average at Rs. 3 per day and that of a skilled worker at Rs. 5.50 per day, the investment per day for a unit of three persons (the ratio of skilled to unskilled workers is assumed to be 1:2) would be Rs. 11.50. Assuming that labour works 300 days in a year, the above investment would generate direct employment to the tune of 22.82 lakh man-years over the five year period. It is estimated that the indirect employment potential of the construction activity is roughly 1.6 times that of the direct employment. On this basis, the indirect employment potential of this programme would be 36.51 lakh man-years. Thus the total direct and indirect employment potential of the rural part of the programme is expected to be of the order of 59.33 lakh man-years over the Plan period.

5.83 As for the employment potential of the proposed programme of urban housing, it is reasonable to assume a direct wage component of about 25 per cent of the investment, that is, Rs. 535 crores. Taking the wage of an unskilled worker at Rs. 4 per day

and that of a skilled worker at Rs. 12 per day the investment per day for a unit of three persons (the ratio of skilled to unskilled workers being assumed to be 1:2) would be Rs. 20. Assuming that the labour is employed for 300 days of the year, on an average the above investment will provide direct employment for 25 lakh man-years over the Plan period or an average of 5 lakh man-years per year. Taking the indirect employment potential at 1.6 times the direct employment, the indirect employment generated would be about 40 lakh man-years. Thus the total direct and indirect employment potential of the urban part of the programme is expected to be of the order of 65 lakh man-years over the Plan period.

5.84 Such an expanded activity in the sphere of housing in urban as well as rural areas would need a suitable administrative and organisational set-up including the necessary institutions for promoting, financing and supervising the efficient and expeditious execution of such a programme. For this, the activities of the state housing boards would need to be extended to a larger number of cities and towns including the new growth centres so that the various housing programmes included in the Plan, such as subsidised industrial housing, slum clearance, middle income group housing and lower income group housing may have a wider coverage. We would, therefore, like to reiterate our earlier suggestions made in the Interim Report for providing the necessary institutional and organisational frame-work for the implementation of this programme. Such a framework should provide for having in each State a suitable institutional agency to undertake in the rural areas the type of functions which the housing boards are undertaking at present in respect of the urban areas, viz., the acquisition and development of land, the formulation and execution of housing schemes, etc. Such institutional agency could also undertake the provision of infrastructural facilities for the development of sites and promotion of housing in the rural areas. It should also provide technical assistance, prepare model plans, designs, etc., for rural houses with due regard to local and climatic conditions and arrange to make these available to the prospective house builders in rural areas. Besides, for providing housing finance for rural areas, there should be in existence a two-tier organisational set up comprising the rural housing finance corporations at the State level and an apex organisation at the national level. As regards the apex organisation, the Housing and Urban Development

Corporation (HUDCO) might as well function as such apex organisation or a separate corporation for the purpose might be set up.

5.85 We would also stress the suggestion made earlier that besides the Rural Housing Finance Corporations in the States and a suitable apex organisation at the Centre, other government agencies and financial institutions like the LIC and the nationalised banks should make their contribution to such a programme. The HUDCO and the LIC have, of course, been providing funds of a sizeable order for housing programmes. For example, the HUDCO has in 1971-72 sanctioned loan proposals of the order of Rs. 35 crores which are expected to generate a total investment of about Rs. 62 crores in various schemes for the middle and low income groups in the metropolitan cities as well as in a number of other cities and towns. The LIC has also made sizeable contributions to housing development by way of loans to the State Governments, cooperative housing finance societies, etc., and its total contribution for such purposes amounted as on 31st March, 1972 to about Rs. 360 crores.*

5.86 However, most of the loans advanced by the LIC to the State Governments are for financing the housing schemes like the middle income group housing in urban areas, etc., while the advances for the purpose of rural housing schemes constitute a very small part of such loans, i.e., Rs. 3.28 crores out of a total loan of Rs. 163 crores to these Governments. We consider it of importance that the LIC should play a larger role in promoting rural housing which should bear some relationship to the contribution made by its rural policy holders. The resources of the HUDCO will also have to be augmented if it has to fulfil adequately the role which has been assigned to it both in the rural and urban areas and to function as the central agency to accelerate the housing and urban development programmes throughout the country.

5.87 A word regarding the contribution to the housing programmes by the commercial banks. With the exception of the State Bank of India which is not permitted to make advances for housing, there is no legal bar to commercial banks advancing loans for housing. These banks do not however, by and large, extend such credit though a few of them have recently initiated some housing finance schemes on a limited scale. A complaint is sometimes heard that the resources

mobilised by the banks through the opening of new branches in rural areas are being diverted largely towards the financing of industrial and other activities in the large metropolitan areas. We feel that to the extent justified by their administrative and personnel resources, commercial banks should provide direct assistance to persons desiring to construct their own houses. Besides, they should also divert some of their resources for refinancing the housing finance activities of the proposed rural housing finance corporations or their branches. Further, their contributions would be of great value in promoting medium term projects for providing community facilities and amenities like piped water supply, rural roads, markets, etc.

5.88 Quite apart from the credit and other financial assistance to be provided by the Government agencies, the LIC, etc. the bulk of the investment required for a housing programme will have to be provided by the beneficiaries themselves. The keenly felt desire for possessing a house, particularly in the rural areas, could be properly utilised if an adequate institutional framework could be provided for mobilising savings from the rural community and also for extending financial assistance to prospective house builders to supplement their resources. The rural housing finance corporations, either through their own branches or with the assistance of various banking and cooperative institutions, could promote suitable schemes for attracting long-term and medium-term savings particularly from the persons who have benefited from the increased incomes from agriculture and other economic activities in the rural areas. These savings would augment the resources of the rural housing finance corporations obtained from other sources such as contributions from State Governments, loans from the apex organisation and refinancing facilities from commercial banks. In this manner the rural housing finance corporations could combine the functions of mobilising savings from, and providing housing finance to, the rural community so as to promote house construction and generate employment in the rural areas.

* 5.89 Some useful work is being done in improving building technology by the Central Building Research Institute and the National Buildings Organisation. There is, however, need for developing a large number of suitable house plans and designs to meet the diverse requirements of the different sections of people and the varying local conditions.

*Annual Report of the LIC for the year ended 31st March, 1972, page 16.

These plans and designs should aim at maximising the use of locally available indigenous materials like bricks, tiles, lime, timber, etc., and eliminating or minimising the use of scarce materials like steel and cement. These designs, drawings, plans and estimates should be undertaken through suitable agencies and they should be made easily available to the prospective housebuilders at a nominal cost.

5.90 Our Working Group* has also drawn attention to another aspect of the problem which may considerably affect the successful implementation of a large scale programme of housing. They have pointed out that even the present meagre rate of house-building activity is impeded due to the inadequate supply of building materials. If the house-building activity is to grow, steps would have to be taken to ensure supplies, in adequate quantities and with regularity, of essential building materials like cement, steel, bricks, tiles, timber, etc. It is hardly necessary to emphasize the importance of increasing the production of these materials so as to ensure their adequate supply and availability in time. The production of materials like bricks, tiles, lime, stone, timber, etc., being highly labour-intensive (as in many cases, nearly one-half of the price of the finished materials is accounted for by the labour component), their greater production would, besides helping the construction of more houses, also generate considerable employment. It is also necessary to take steps to maximise the use of materials which are produced or obtained locally, for example, bricks, lime, timber, roof tiles, etc., and to reduce, as far as possible, the use of scarce materials like steel and cement.

Implementation of plan programmes

5.91 In the earlier part of this chapter, we have discussed some of the plan programmes which are important from the point of view of employment and on the implementation of which greater emphasis would have to be laid. In subsequent chapters also, we are discussing plan programmes under the sections of agriculture, industries and education. These programmes include not only construction activities like minor irrigation, soil conservation, land reclamation and rural roads but also programmes of agricultural extension as well as the promotion of industries and subsidiary occupations, expansion of primary education and adult literacy. For the effective and timely implementation of these

programmes, their proper planning and the preparation and selection of economically and technically sound schemes which would generate employment, are very important. Our Working Group on Agriculture have pointed to some of the organisational bottlenecks hampering the smooth implementation of the programmes. These include the multiplicity of agencies, the lack of coordination between them and overlap or even duplication in their spheres of work. Although in a number of States, there are coordination committees at the district and block levels, of which the officials concerned with the programmes to be implemented are members, these committees are often confronted with certain difficulties in the process of coordination. The Planning Commission are also seized of some of the problems arising in the implementation of the programmes under some key sectors in the Fourth Plan. In the paper entitled from the increased incomes from agricultural 'Approach to the Fifth Plan' they have pointed out that one of the major reasons for the poor performance of some of these programmes is that the preparation and evaluation of projects and the issue of sanctions had undertaken a considerable time after the plan had been finalised and the projects had been included in it. It is this lack of foresight and care in the preparation and selection of projects before the outlays and targets are fixed by the planners that has been one of the problems hindering the proper implementation of the Plan programmes.

Organisational Changes Recommended at the District Level

5.92 Some of our Working Groups have considered the question of improving the implementation of the Plan programmes and made certain recommendations. The Working Group on Agriculture have suggested the establishment of district project formulation bureaux to assist the coordination committees at the district level in drawing up technically sound master plans. They have also spelt out the composition of the bureaux and their responsibilities such as undertaking surveys, formulating priorities, and drawing up economically sound schemes. The Working Group on Plan have, on the other hand, pointed out that the district collector who is generally responsible for drawing up master plans is not able to do full justice to this work due to the multifarious functions assigned to him. They have, therefore, suggested the seconding of the officers of the Indian Economic Service

*Report of the Working Group on Plan Vol. I pages 225-226 (paras 21.23 to 21.25)

to the district collectors and also examination of the possibilities of posting officers of the Indian Statistical Service in the State bureaux of economics and statistics. The departmental officers concerned with the formulation of plan programmes should be provided with guidelines for adopting a multi-disciplinary perspective in order to have an overall view of the social and economic conditions in the district, as well as for examining its problem in the larger geographical context of the region. In cases where the master plans have been prepared before the implementation of the programmes, they may be reviewed, if necessary, with an approach which is multi-disciplinary in nature so as to improve the contents of the master plans and the mix of the programmes. During the preparation of the master plans and the implementation of the schemes, the administrative officers should keep themselves informed of the work of the data-collecting agency so that they can better obtain and utilize relevant data on the social and economic life of the district. The issues of employment generation in the countryside cannot, according to the Group, be considered without reference to the prevalent conditions regarding employment in the rural areas and the larger issues regarding land reforms including laws relating to land ceilings.

The Working Group on Financial and Fiscal Measures have laid stress on multi-level planning and its significance for employment generation. The main objective of regional and multi-level planning is, in the opinion of the Working Group, to introduce 'space' as an explicit part of the planning models. They have stated that considerable research has been directed recently towards sorting out the available technological and spatial information relating to the economy so that the relevant technological and economic possibilities for different States can be arranged in a useful manner for planning purposes. They have also pointed out that the area plans formulated on such basis would have further to be integrated with the anti-poverty programmes.

5.93 We have carefully examined these views expressed by our Working Groups. We are inclined to agree with their emphasis on the need for the formulation of all programmes as well as their implementation on a regional or area basis. The individual officers at various levels would continue to be responsible for ensuring the implementation of the schemes and to oversee their execution. In view of the number of programmes in different sectors which would need to be dovetailed

into each other both at the planning and the implementation stages, it is necessary that there should be coordination committees of the technical officers of various departments functioning effectively at the district level as well as similar committees composed of higher level officers functioning at the regional and/or State levels. We, therefore, suggest that the district and/or State level coordination committees should be established where they do not exist at present and the existing ones strengthened wherever necessary. These district level committees should be supported and assisted by a strong planning cell in drawing up an integrated plan and in the coordination of programmes in the course of implementation. These planning cells should be manned by technical officers who are equipped to undertake studies of the relevant schemes and their inter-relationships, particularly with regard to their employment potential, and who can assist in the preparation of project reports and undertake the formulation of programmes as part of an integrated plan for the area. They should be in a position to obtain periodically information about the progress of implementation of the various programmes at the district level and should examine where necessary the modifications or adjustments of the programmes and devise measures to remove any bottlenecks or difficulties, so as to ensure coordinated action by various departments. For monitoring and coordinating the implementation of the district level schemes, their working should be integrated with the functioning of the state level by the state coordination committees. The planning cells at the district level may, in the first instance, be established on a pilot basis in those districts where the activities relating to the formulation of area plans have reached a certain stage of development in accordance with the guidelines which have been laid down for this purpose by the Planning Commission recently. Their initial functioning should be specially guided and supervised by the State Planning Departments and by experts drawn from the Central Ministries so that they can evolve suitable methodology and procedures for the formulation of area plans which could later serve as a guide for extending such arrangements to other districts in the light of experience. The planning cells at the headquarters or at the regional level, of the departments should undertake the technical examination and scrutiny of some of the programmes and schemes at the district level and of the schemes concerning more than one district. For this purpose they should be able to avail of the technical advice of such consultants as may be necessary.

5.94 In order to support the working of these coordination committees at the regional or state level, a committee of secretaries and important heads of the departments implementing the programmes should be set up. These committees at the state and regional levels should consider either *suo moto* or on a reference being made to them, such matters as cannot be sorted out at the district level and the issues involving matters of policy or practices of general applicability. They should also scrutinise the various programmes and schemes to ensure that clear cut responsibilities and tasks are prescribed or assigned and the necessary powers are delegated to the officers at the district level, and that these officers perform their duties and carry out their tasks efficiently.

Organisation of the weaker sections

5.95 Besides the deficiencies in the organisation set-up referred to above, another major lacuna in the implementation of the Plan programmes is that the benefits of such programmes in general and even of the programmes intended for the weaker sections of the community do not generally accrue to the latter in full measure, but flow largely to the more influential and better-off sections of the community. We have mentioned at other places in this Report some of the problems faced by the weaker sections of the rural community who have largely remained untouched by the process of economic development. Some of the factors responsible for this state of affairs are the small size of holdings, the lacunae in the land reforms legislation, the large number of persons without land, the difficulties experienced in obtaining credit and other inputs, etc. As discussed earlier in this chapter, some steps have been initiated by the Government to assist these disadvantaged or neglected classes by undertaking programmes like the SFDA, the MFAL, the CSRE, etc. However, these programmes bring relief at present to only a very small portion of the weaker sections of the community. We are indicating in the chapter on Agriculture the need of securing a closer association and participation of the weaker sections in the formulation and implementation of agricultural development schemes so as to enable them to obtain, in adequate measure, the benefits accruing from such schemes.

The Panchayati Raj System

5.96 In this connection we would like to refer to the role of the panchayati raj institutions in the implementation of rural development

schemes in the areas of their jurisdiction. At present there is in existence in many States a three-tier system of panchayati raj institutions comprising village panchayats at the village level, panchayat samitis at the block or tahsil level and zila parishads at the district level. In some of the States like Maharashtra and Gujarat, the implementation of the programmes of rural development in general, and of employment generation in rural areas in particular, has been entrusted to these democratically constituted bodies headed by the zila parishads. All the executive powers in relation to such development schemes which form part of the district plans have been entrusted to these panchayati raj institutions at various levels and the administrative functions in relation to these schemes are performed by the Chief Executive Officers functioning under the zila parishads. The district level officers of the development departments have also been placed under the administrative control of the zila parishads. We feel that in other States also such elected bodies should be entrusted with wider responsibilities for the execution of rural development projects and employment-oriented schemes in the areas included in their jurisdiction. In those States where panchayati raj institutions at the district level have either not been established or have not been vested with necessary responsibilities and powers for such developmental projects, we recommend that suitable steps should be taken for the establishment of such institutions and for vesting them with necessary powers and responsibilities. The planning, implementation and evaluation of all rural developmental activities envisaged in the Plan could thus come within the purview of the Panchayati raj institutions.

5.97 While the administrative responsibility for the implementation of rural development schemes should be vested in democratic bodies at the district and lower levels, we consider that it would also be desirable to have suitable organisations of the beneficiaries of such schemes which could be associated with the formulation and implementation of such programmes. This will help in ensuring that the real interests of the weaker and disadvantaged sections of the community are properly looked after. We, therefore, feel that the weaker sections should be encouraged and assisted to form at the local levels organisations which should be constituted entirely from amongst these weaker sections. They should be kept fully in the picture in the selection of schemes of rural development undertaken in the various areas and the location of such schemes. Efforts should be made to give a more effective voice

to these classes through their organisations so that they are in a position to represent their genuine needs and grievances and to ensure that the benefits of the schemes meant for them are not diverted to others. The legally constituted democratic bodies should take special care to arrange for consultations with these organisations in formulating and implementing programmes for their benefit and they should pay due regard to the views and suggestions emanating from such bodies. Further, there should be regular arrangements for continuous and periodical discussion between the representatives of panchayati raj bodies and the executive officers concerned with the implementation of these programmes on the one hand, and the representatives of these organisations on the other, so that the various problems and difficulties in the proper execution of such programmes for the benefit of the weaker sections may be discussed directly and suitable remedial measures devised for looking after their interests in a more effective manner.

Maintenance of works

5.98 Once the programmes of works have been executed arrangements would need to be made to maintain the capital/durable assets properly in a permanent state of repairs. The maintenance and upkeep of such capital works especially roads, canals, irrigation works, etc., would provide continuing employment to a part of the rural labour force. A point often raised in this connection is that adequate arrangements are not made or enough funds provided for the proper maintenance of such works. We feel that it is of great importance that at the stage of formulation of a scheme at either the State or Central level, adequate provision for the maintenance of the durable assets created by the schemes up to the end of the Plan period during which it is completed, should be included in the outlay provided for it. It should be ensured that the funds provided for such maintenance during the Plan period are not diverted to other programmes. In case there is any such diversion, there should be a provision, as a measure of financial discipline, for the adjustment of the amount in question against the assistance due to the State Government or the authority concerned in the subsequent years. The agency which will be responsible for the proper maintenance of such assets in the subsequent period should be clearly specified, whether it be a Government or other official agency or a local authority. The express acceptance of such responsibility by the agency concerned should be obtained before

the work on a scheme is commenced so that the assets may not subsequently suffer for want of the requisite maintenance. Although it is not for us to suggest the manner in which such responsibility should be enforced in actual practice, we feel that steps should be taken to ensure that the necessary financial resources for meeting the expenditure on such maintenance are made available to such agencies or authorities—either by way of suitable grants, the assignment of sources of revenue, the vesting of powers of taxation or the devolution of funds—whatever measures may be considered to be appropriate in the case of an agency or authority.

Adequate financial provision

5.99 Another factor inhibiting the timely execution and speedy implementation of projects, particularly of major projects relating to irrigation, power or industrial development is the inadequate budget allotment and the release of funds in dribbles from year to year. While the programmes of construction of such projects drawn up at the time of preparation of the project reports are based on the optimum targets that can be achieved yearwise and on the availability of the requisite funds in time, in actual practice the allotment of funds in many cases lags behind and is neither timely nor prompt. This factor upsets the schedule of construction of the projects, with the result that not only the benefits expected from them get postponed but the economics of the projects also fall into serious disarray due to the accumulation of interest charges, the rising unit costs of construction, etc. We, therefore, recommend that at the time of sanctioning the projects, the full financial implications, including the phasing of expenditure in subsequent years should be kept prominently in view and the number and relative priority of the projects to be taken up should be regulated according to the likely resources available in future years. In the case of the continuing projects, the provision of adequate allocation of funds for them in the ensuing year should receive priority. This will assist in improving the completion, according to the schedule, of major projects from which a great deal of benefit is expected to be derived, and in realising full employment potential during the construction as well as the subsequent stages.

Preparatory action for programmes for the rural areas

5.100 Some of the programmes which we have recommended for the rural areas would

need prior planning before the Fifth Plan is actually taken up for implementation. Such preparatory work should, therefore, be initiated immediately, especially for surveys of the resource potential and of the requirements of the areas concerned, assessment of the feasibility of programmes, preparation of the project reports including detailed cost estimates, etc. Steps should also be taken from now on to estimate the requirements of manpower including technical personnel, equipment and installation facilities which would need to be mobilised for the execution of the programmes, and to spell out the various antecedent steps which would be needed to ensure their availability at the relevant time. If such preparatory steps are initiated in good time, we have no doubt that it will be possible to attain time bound, smooth and unhindered implementation of the various programmes and that delays and bottlenecks which arise at present and the consequent frustration and disappointment caused thereby would be greatly obviated.

ANNEXURE

An abstract of Government schemes to provide employment

PART I

List of the schemes of the Central Ministries formulated under the Fourth Plan

1. Department of Agriculture

The Department of Agriculture have formulated nine schemes covering agricultural development and employment generation. These relate to (i) development of small but potentially viable farmers; (ii) sub-marginal farmers and agricultural labourers; (iii) development of dry farming; (iv) rural works and labour intensive activities in chronically drought affected areas under the special employment programmes; (v) development of infra-structure facilities like roads, regulated markets, etc.; (vi) survey of regulated markets; (vii) dairy development; (viii) agro service centres and (ix) crash scheme for rural employment. This comes under the special employment programme.

2. Department of Industrial Development

Five schemes have been formulated by the Department, viz: (i) development of industrial estates; (ii) development of ancillaries; (iii) facilities for small scale industries; (iv) training of rural artisans and (v) assistance to small entrepreneurs.

3. Department of Internal Trade

The Department of Internal Trade have formulated only one scheme, viz., development of marketing of farm machinery and inputs and consumer goods for rural areas.

4. Department of Labour and Employment

The Department have formulated two schemes, viz., (i) employment of electricians and wiremen

trained at Industrial Training Institutes (ITI) and (ii) training of ITI certificate holders and apprentices.

5. Department of Cooperation

The Department have formulated only one scheme viz., expansion of consumer cooperatives. Under this scheme, 276 educated persons were employed in 1971-72.

6. Department of Health

The Department have prepared a scheme of "Creation of planning and design units for preparation of rural water supply schemes in the States". Under this scheme 827 persons will be employed.

7. Ministry of Education

The Ministry have formulated one scheme on "Expansion and improvement of the quality of primary education".

8. Ministry of Irrigation and Power

Two schemes, viz., (i) training of engineering graduates/diploma holders for operational/maintenance of thermal power station and (ii) rural engineering surveys, have been formulated and implemented by the Ministry.

9. Ministry of Shipping and Transport

The Ministry have formulated and implemented only one scheme, viz. investigation of road projects.

10. Ministry of Petroleum and Chemicals

Only one scheme of Indian Oil Corporation which offers self-employment opportunities to young engineering graduates by way of granting dealerships, has been implemented.

11. Planning Commission

A scheme, viz., improvement in employment statistics to consider the recommendations of the Dantwala Committee and suggestions made by various organisations on these recommendations has been formulated.

12. Ministry of Education, Department of Social Welfare and Department of Labour and Employment

Three schemes of 'Career advising and vocational guidance' have been formulated.

13. Department of Industrial Development and Department of Labour and Employment

One scheme of "Training of engineering graduates/diploma holders with a view to facilitate self-employment" has been jointly formulated by these Departments.

PART II

List of other schemes of the Central Ministries formulated under the Fourth Plan which have employment potential, direct and indirect.

1. Department of Social Welfare

The Department have implemented a scheme on "Nutrition feeding of pre-school children, expectant and nursing mothers".

2. Ministry of Education and Social Welfare

A scheme of "School feeding (State Sector)" has been formulated and implemented.

3. Department of Family Planning

The Department have formulated and implemented two schemes of (i) prophylaxis against nutritional anaemia among children and mothers and (ii) control of blindness in children caused by vitamin 'A' deficiency.

4. Department of Community Development

The Department have implemented two schemes on (i) applied nutrition programme, and (ii) composite programme for women and pre-school children.

5. Department of Food

The Department have formulated and implemented four schemes, viz., (i) production of ground-nut and soya flour; (ii) production of Balahar and other low cost protein foods; (iii) pilot plant for the protein isolated and protein isolate toned milk.

6. Department of Health

The Department have implemented four schemes, viz., (i) rural water supply schemes in the State sector; (ii) appraisal and drawing up of rural water supply scheme; (iii) ground-water exploitation; and (iv) training of public health engineering personnel.

7. Ministry of Works and Housing

The Ministry have implemented the following nine schemes :—

- (1) Establishment of Housing and Urban Development Corporation.
- (2) Office and residential accommodation for Central Government servants.
- (3) Housing scheme in the State sector.
- (4) Development of new metro centre, Bombay.
- (5) Development of Calcutta Metropolitan Region.
- (6) Development of three satellite towns around Madras.
- (7) Village housing projects scheme.
- (8) Provision of house-sites to landless agricultural workers.
- (9) Subsidies to housing schemes for plantation workers

PART III

List of schemes formulated by State@ Governments/ Administrations of Union Territories under the Special Employment Programme, 1972-73

A provision of Rs. 27 crores was made in the Central Budget for 1972-73 for allocation to States (Rs. 26.5 crores) and Union Territories (Rs. 0.5 crores) under the Special Employment Programme (SEP). It was expected that matching contributions would be made. But all the States have not mobilised the necessary additional resources and it is expected that the likely expenditure on the programme would be nearly Rs. 42.2 crores. It was expected that the programme would generate employment opportunities for about 3.70 lakhs (including 11,000 engineers).

1. Andhra Pradesh

The central assistance to the State under the SEP was Rs. 213 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State Government :—

(i) Rural engineering and planning surveys

The total outlay for this scheme in 1972-73 was Rs. 47 lakhs. It is expected to create employment opportunities for about 11,000 persons consisting mostly of engineers and agricultural graduates.

(ii) Integrated rural development scheme

This scheme comprises :

- (a) scheme for land colonisation and collective farming societies, and
- (b) scheme for composite land and water resources development.

(iii) Economic support schemes

The objective of these schemes is to provide economic support for weaker sections to diversify and increase their employment opportunities. It includes (a) dairy (b) milk transport (c) bone crushing units and (d) sprayers. Under (d) it is proposed to assist about 100 educated unemployed young persons.

(iv) Margin money schemes

These schemes intend to provide financial assistance to technical and non-technical persons to take up goods and passenger transport work in the co-operative sector.

2. Assam

The central assistance to the State under the SEP was Rs. 72 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State Government :—

- (i) Dairy farms.
- (ii) Fodder farms.
- (iii) Poultry farms.
- (iv) Urban water supply.
- (v) Rural water supply.
- (vi) Drainage and sewerage.
- (vii) Forestry scheme in Digboi, Nowgong, Lekhapani and Sibsagar divisions.
- (viii) Economic survey in forestry division.
- (ix) Construction of field channels.
- (x) Power tiller service.
- (xi) Advance planning, survey and investigation works for roads and bridges and minor irrigation.
- (xii) Flood control and irrigation.
- (xiii) Gully control.
- (xiv) Brahmpore flood control.
- (xv) Schemes of the Hill Areas :

(a) Aided regeneration in Jhumb areas of north Cachhar Hills.

(b) Mixed plantation in North Cachhar Hills.

- (xvi) Establishment of bakery unit.
- (xvii) Tailoring unit.
- (xviii) Umbrella making unit.

⊙Some major employment schemes of State Government are given separately in Part IV.

- (xix) Handloom weaving.
- (xx) Sericulture.
- (xxi) Repairing and servicing facilities for automobiles, agricultural machinery, etc.
- (xxii) Alum industries.
- (xxiii) Production of exercise books.

3. Bihar

The central assistance to the State under the SEP was Rs. 275 lakhs. Matching contribution was made by the State. The following schemes were formulated by the State Government.

- (i) Scheme for providing employment to unemployed engineers, technicians and agricultural graduates.
- (ii) Self-employment scheme for agricultural graduates and village level workers.
- (iii) Self-employment scheme for veterinary and animal husbandry graduates.
- (iv) Crash programme for consolidation of holdings.
- (v) Scheme for the grant of subsidy to industries for employment of engineers and technically qualified persons.
- (vi) Investigation of irrigation and multipurpose projects.
- (vii) Survey and investigation of new power projects, new transmission lines and rural electrification scheme.
- (viii) Special scheme for large diameter irrigation wells.
- (ix) scheme for employment of educated and trained fishermen, unemployed village level workers and trained fishermen technicians.
- (x) Execution of soil and water conservation works.
- (xi) Construction of pucca roads.

4. Gujarat

The central assistance to the State under the SEP was Rs. 131 lakhs. Matching contribution was also made by the State. The following seven schemes were formulated by the State Government:—

- (i) Plantation of denuded forest area and road side plantations.
- (ii) Minor irrigation percolation tanks.
- (iii) Pilot project for reclamation of khar lands in Surat and Bulsar districts.
- (iv) Field protective bunds in Surendar Nagar district.
- (v) Industrial training programme in Diamond Jubilee Cottage Industries Institute, Baroda.
- (vi) Financial assistance to artisans.

The scheme will provide gainful employment to 1,000 artisans.

- (vii) Rural industrial estates with free common facilities.

5. Haryana

The central assistance to the State under the SEP was Rs. 49 lakhs. No matching contribution was made by the State. The State Government formulated the scheme of construction of roads which will provide total employment of 4.46 lakh man-days.

6. Himachal Pradesh

The central assistance to the State under the SEP was Rs. 17 lakhs. No matching contribution was made by the State. The State Government formulated the following schemes:—

- (i) Adult literacy programme:—

It will provide employment to 300 unemployed trained teachers.

- (ii) Special plantation programme.
- (iii) Forest roads construction programme.
- (iv) Pavement of village streets.
- (v) Construction of portion of Karcham-Sangla-Chitkul road.

7. Jammu and Kashmir

The central assistance to the State under the SEP was Rs. 23 lakhs. No matching contribution was made by the State. The State Government has formulated the scheme for rural educated unemployed in the field of handicrafts, small industries and retail trades.

8. Kerala

The central assistance to the State under the SEP was Rs. 104 lakhs. A matching contribution was made by the State. The following eleven schemes were formulated by the State Government:—

- (i) Minor irrigation scheme including construction of Moolathara right bank canal.
- (ii) Soil conservation.
- (iii) Rural dispensaries.
- (iv) Cooperative dispensaries for unemployed doctors.
- (v) Palghat infrastructure scheme.
- (vi) Cattle breeding centre-cum-bull station at Palghat.
- (vii) Self-financing scheme of live stock societies.
- (viii) Improvement of Kottaram Canal in Alleppey district.
- (ix) Scheme of industrial testing laboratory at Trivandrum.
- (x) Employment of post-graduates for translation work.
- (xi) Functional industrial estates and other industrial schemes.

9. Madhya Pradesh

The central assistance to the State under the SEP was Rs. 204 lakhs. A matching contribution was also made by the State. The following 22 schemes have been formulated by the State:—

- (i) Ancillary industrial estates to meet the requirements of Madhya Pradesh State Road Transport Corporation.

This scheme is expected to generate employment for about 1,100 persons.

- (ii) Construction of 60 commercial-cum-residential sheds.

This scheme is expected to generate direct and indirect employment for about 590 persons.

- (iii) Construction of sheds at Indore for Laghu Udyog Nigam for educated unemployed.
- (iv) Development of dairy estate near Bhopal with all facilities.

- (v) Establishment of poultry estate near Bhopal with all facilities.
- (vi) (a) Slum clearance schemes.
(b) Development of land near Bhopal.
- (vii) Establishment of agro-community by development of land allotted to cooperative farming societies.
- (viii) Terracing and paddy bunding in backward districts.
- (ix) Construction of 100 rural godowns.
- (x) Development of lift irrigation cooperative societies.
- (xi) Construction of agricultural information and administrative centres in tribal and dacoity areas.
- (xii) Development of mandi centres with basic civic amenities.
- (xiii) Survey of command areas of important irrigation works for proper water management.
- (xiv) Survey of severally eroded areas.
- (xv) Survey of rural roads.
- (xvi) Survey of water supply and drainage schemes.
- (xvii) Survey of important rivers for lift irrigation.
- (xviii) Employment survey and evaluation of employment-oriented schemes.
- (xix) Geo-hydrological survey for lift irrigation.
- (xx) District-wise electricity load survey for lift irrigation.
- (xxi) Establishment of ancillary industrial estates for the requirements of Madhya Pradesh Electricity Board.
- (xxii) Rural development scheme.

10. Maharashtra

The central assistance to the State under the SEP was Rs. 247 lakhs. No matching contribution was made by the State. However a provision has been made in the State Plan. The following schemes were formulated by the State Government :—

- (i) Employment guarantee scheme.
- (ii) Self-employment among educated unemployed.
- (iii) Village level employment scheme.
- (iv) Expansion of ground-water survey and development scheme.

11. Manipur

The central assistance to the State under the SEP was Rs. 5 lakhs. No matching contribution was made by the State. The State Government has prepared a scheme for survey and investigation of dam sites for preparation of master plan for irrigation/power.

12. Meghalaya

The central assistance to the State under the SEP was Rs. 5 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State government :—

- (i) Minor irrigation.
- (ii) Rural housing.
- (iii) Rural transport.
- (iv) Rural roads project.

13. Mysore

The central assistance to the State under the SEP was Rs. 143 lakhs. No matching contribution was made by the State. The following 22 schemes were formulated by the State Government :—

- (i) Soil conservation programme.
- (ii) Establishment of agro-service centres.
- (iii) Road-side and catchment area afforestation.
- (iv) Creation of green belt around Bangalore and Dharwar districts.
- (v) Raising of eucalyptus plantation.
- (vi) Appointment of technical staff at Mysore State Land Development Bank. It is proposed to appoint 100 technical personnel so that the bank will be able to plan and process schemes relating to land development.
- (vii) Appointment of special staff for marketing and processing societies.
- (viii) Appointment of special staff for consumer cooperative societies.
- (ix) Appointment of supervisors at district central cooperative banks.
- (x) Appointment of full time secretaries in primary agricultural credit societies. It is expected that 1,000 persons will get the benefit.
- (xi) Intensive short term training programme. About 1,000 persons are expected to be trained under this scheme.
- (xii) Training in heavy vehicle driving and maintenance. It is proposed to train 200 drivers per year under this scheme.
- (xiii) Training in driving and maintenance of tractors and farm machinery. It is proposed to train 200 tractor drivers under this scheme.
- (xiv) Establishment of custom service unit.
- (xv) Establishment of rural workshops. The scheme is likely to benefit about 1,000 persons.
- (xvi) Stipendiary training programme for engineers.
- (xvii) Construction of 'B' and 'C' type sheds in industrial estates. It is expected that a large number of persons will be provided with employment, first during the construction phase and later on a regular basis.
- (xviii) Training of Kannada typists and stenographers.
- (xix) Employment assistance to medical, dental and ayurvedic graduates. About 280 medical graduates, 30 dental and 20 ayurvedic graduates are likely to benefit.
- (xx) Improvement of rural roads.

14. Nagaland

The central assistance to the State under the SEP was Rs. 3 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State Government :—

- (i) Sample survey for estimating the consumption pattern, household income and housing conditions.
- (ii) Sample survey on production and consumption of the handloom products.

- (iii) Providing self employment through auto-rickshaws and other industries.
- (iv) Advance action on investigation on State roads.

15. Orissa

The central assistance to the State under the SEP was Rs. 108 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State Government :—

- (i) Industrial estates.
- (ii) Construction of rural roads.
- (iii) Assessment of ground-water potential.
- (iv) Opening of agro-service centres.
- (v) Establishment of cattle feed plant at Berhampur.
- (vi) Development of inland fisheries.
- (vii) Self-employment of veterinary graduates.
- (viii) Suruda-Gazalbari-Darmgabari road.
- (ix) 132 K. V. line road.
- (x) Chikits Mahendragiri Parlakhemundi road.
- (xi) Linking channels or renovation of tanks.
- (xii) Scheme for communications.
- (xiii) Construction of panchayat ghars.
- (xiv) Construction of rural roads.
- (xv) Construction of wells.
- (xvi) Minor irrigation projects.

16. Punjab

The central assistance to the State under the SEP was Rs. 66 lakhs. A matching contribution was also made by the State. The State Government had formulated the scheme for the construction of 220 miles of village roads.

17. Rajasthan

The central assistance to the State under the SEP was Rs. 126 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State Government :—

- (i) Establishment of agro-service centres.
- (ii) Construction of roads and improvement of Slums.
- (iii) Staff for concurrent evaluation of special employment projects.
- (iv) Survey and investigation for rural water supply.
- (v) Survey and investigation of ground-water resources.
- (vi) Construction of houses for members of scheduled castes and scheduled tribes.
- (vii) Survey and preparation of plans for growth centres in developing areas and projects.
- (viii) Cotton and khadi Scheme.
- (ix) Slum improvement.
- (x) Milk collection-cum-chilling centres.
- (xi) Establishment of survey and investigation circle in Rajasthan State Electricity Board.

18. Tamil Nadu

The central assistance to the State under the SEP was Rs. 201 lakhs. A matching contribution was also made by the State. The following schemes were formulated by the State Government :—

- (i) Youth service corps volunteer scheme.
- (ii) Rural roads.
- (iii) Special apprenticeship training scheme.
- (iv) Loan assistance to unemployed craftsmen.

19. Tripura

The central assistance to the State under SEP was Rs. 8 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State Government :

- (i) Agro-service centres.
- (ii) Investigation cell under Panchayat Directorate.
- (iii) Agro-engineering survey.
- (iv) Scheme for providing technical assistance for farm planning to the farmers in areas under irrigation.
- (v) Agro-service scheme.

20. Uttar Pradesh

The central assistance to the State under the SEP was Rs. 423 lakhs. No matching contribution was made by the State but a provision has already been made in the State Plan. The following schemes have been formulated by the State Government :—

- (i) Survey and investigation of thermal generation.
- (ii) Survey and investigation of transmission and distribution lines.
- (iii) Survey and investigation for water supply schemes.
- (iv) Rural engineering service.
- (v) Mass literacy programme.
- (vi) Rendering technical guidance to small farmers.
- (vii) Integrated programme of consolidation and soil conservation.
- (viii) Agricultural extension schemes.
- (ix) Strengthening veterinary dispensaries in key village blocks.
- (x) Construction of small bridges, syphon culverts, etc., on approach roads.
- (xi) Detailed geological and other investigations.
- (xii) Survey of roads and bridges.
- (xiii) Construction of rural link roads.
- (xiv) Investigation of irrigation and multipurpose river valley schemes.
- (xv) Survey and investigation of flood control drainage.
- (xvi) Employment and unemployment survey in the rural and urban areas.
- (xvii) Construction of inter-village roads in sugar factory areas.

21. West Bengal

The central assistance to the State under the SEP was Rs. 218 lakhs. No matching contribution was made by the State. The following schemes were formulated by the State Government :—

- (i) Expansion of employment exchanges.
- (ii) Civil defence and relief work.
- (iii) Tutorial centres.
- (iv) One teacher pathshalas.
- (v) Self-employment training-cum-production centres.
 - (a) Polytechnics.
 - (b) Forests.
 - (i) Wild life.
 - (ii) Training-cum-production and floriculture, identification and collection of herbs and medicinal plants.
 - (c) Animal husbandry and veterinary services.
 - (d) Scheme for maintenance and repair of irrigation pump, diesel engine, tubewell, etc., in rural and semi-urban areas.
- (vi) Sericulture in West Dinajpur district. This scheme will provide employment to 21 persons.
- (vii) Scheme for organising joint sericulture farming.
- (viii) Training-cum-servicing scheme for development of leather goods and footwear.
- (ix) Training-cum-servicing centres in tanning.
- (x) Tanning of leather.
- (xi) Works undertaken departmentally.
 - (a) Forest work.
 - (b) Fisheries—scheme for special employment in shrimp and prawn culture.
 - (c) Scheme for establishing a brick firm.
 - (d) Reclamation of derelict water areas.
- (xii) Stone quarrying.
- (xiii) Monitoring, evaluation and surveys.
- (xiv) Training in artistic handicrafts for educated unemployed women.
- (xv) Piped water supply scheme in Darjeeling district.
- (xvi) Improvement of kutcha village roads.
- (xvii) Re-excavation of derelict tanks and waterways.
- (xviii) Repair and improvement of public embankments.
- (xix) Environmental improvement including mosquito control measures in urban areas.
- (xx) Tea plantation on government roads belonging to public bodies, parks, etc.
- (xxi) Intensive training under animal husbandry and dairy development schemes.
- (xxii) Pilot scheme for in-service training in constructional works.
- (xxiii) Intensive training of ex-ITI boys in occupations suitable for self-employment.

- (xxiv) Training scheme in different thermal, hydel and diesel power stations.
- (xxv) Organisation for scooter—rickshaw cooperatives.
- (xxvi) Scheme for lac growers.
- (xxvii) Intensive training in repairing different types of pump sets used in agricultural operations.
- (xxviii) Scheme for levelling, jungle cutting, etc.
- (xxix) Contour bunding, plotting, construction of fixed channels.
- (xxx) Training schemes in self-employed jobs.
- (xxxi) Training in umbrella assembling.
- (xxxii) Scheme for training educated unemployed of rural areas in custom service.
- (xxxiii) Establishment of automobile repairing and servicing workshops, and
- (xxxiv) Ten training schemes in different trades.

B. UNION TERRITORIES

1. Andaman and Nicobar Islands

The provision under the SEP was Rs. 0.91 lakhs.

The following schemes were formulated by the Administration :—

- (i) Construction of village roads.
- (ii) Construction of two wells.
- (iii) Construction of three R.O.C. ring wells.
- (iv) Construction of approved path at C.F.O. nallah.
- (v) Construction of five wells in South Andaman.

2. Arunachal Pradesh

The provision under the SEP was Rs. 3.33 lakhs. The Administration has formulated the scheme for construction of jeepable road on Palin—Sungram Angument in Subandani District.

3. Chandigarh

The provision under the SEP was Rs. 1.97 lakhs. The following schemes were formulated by the Administration :—

- (i) Starting of three nursery schools in rural areas.
- (ii) Construction of houses for the persons in low income group and slum dwellers.
- (iii) Five self-employment schemes for graduate engineers.

4. Dadra and Nagar Haveli

The provision under the SEP was Rs. 0.53 lakhs. The following schemes were formulated by the Administration :—

- (i) Raising of plantations and providing protection.
- (ii) Road-side plantation.
- (iii) Logging schemes.
- (iv) Removal of climbers and stumps left by illicit cutters.

5. Delhi

The provision under the SEP was Rs. 30.55 lakhs. The following schemes were formulated by the administration :—

- (i) Small industrial pockets for technical entrepreneurs.
- (ii) Setting up of flatted factories for handicrafts.
- (iii) Setting up of modern dairy colonies.

6. Goa, Daman and Diu

The provision under the SEP was Rs. 6.50 lakhs. The Administration had formulated the scheme for intensifying and expanding the eradication of illiteracy drive.

7. Laccadive and Minicoy Islands

The provision under the SEP was Rs. 0.23 lakh. The Administration had formulated the scheme of coir production central in Kadmat Islands.

8. Mizoram

The provision under the SEP was Rs. 2.42 lakhs. The following schemes were formulated by the Administration:—

- (i) Food production (power tillers).
- (ii) Construction of playgrounds.
- (iii) Sewing machines to unemployed tailors.

9. Pondichery

The provision under the SEP was Rs. 3.56 lakhs. The following schemes were formulated by the Administration:—

- (i) Construction of a cause-way in Sellengal river near Sivarand, and
- (ii) Construction of low cost dwelling units for the welfare of Harijans.

PART IV

Major Employment Schemes

1. The Kerala State Engineering Technicians (Workshop) Industrial Cooperative Societies Ltd. (ENCOS)—Kerala

Engineers and other technically qualified persons have formed an Engineering Technicians (Workshop) Industrial Cooperative Society Ltd., on the principle of "Share participation-cum-self-employment". The main objective of the society is to organise a number of employment-oriented production units for technically qualified persons in different areas of the State.

The Society has been registered under the Industrial Cooperative Societies Act, 1968 with the authorised capital of Rs. 51 lakhs. The Board of Directors consists of nine members including the chairman. Of the nine members, four are elected and the remaining nominated by the State Government.

The share capital of the Society has been raised through share contribution by the members and equity participation by the State Government to the extent of three times the share capital raised by the society.

It has appointed M/s Kirloskar Consultants as their consultants for preparing project reports and feasibility studies

The society has given employment to about 560 persons and has so far taken up schemes involving a capital outlay of about Rs. 6 crores and is considering additional schemes amounting to Rs. 5.6 crores.

2. Scheme for subsidised employment of engineers (Punjab pattern)

The Government of Punjab introduced in 1971-72 a "scheme for subsidised employment of engineers". This scheme is a modification of the stipendiary apprenticeship training scheme for engineers and diploma holders of the Union Ministry of Education.

Under this scheme a small industrialist is given the choice to select any unemployed degree holder or diploma holder and employ him for one year in his establishment. At the end of the year if the unit is satisfied with the work of the concerned trainee, he is absorbed. In some cases, the trainees have been able to gain sufficient practical experience and knowledge and hence the confidence to start their own small ventures.

The scheme is administered by the State Director of Industries and its application is confined at present to small and medium scale industries with a capital investment of Rs. 25 lakhs. During the training period, a consolidated pay of Rs. 400 and Rs. 200 per month to a graduate and diploma holder respectively is paid. The State Government subsidise the salary to the extent of 50 per cent. The programme is gradually gaining momentum.

3. Cooperative dispensaries for unemployed doctors—Kerala

The State government has introduced this scheme to provide self-employment to doctors, nurses, and other para-medical persons on a cooperative basis. The aim is to provide a self-contained medical unit in each panchayat unit.

There are two types of members, A and B. "A" class members are restricted to persons such as doctors, nurses, mid-wives, laboratory assistants, etc., and they are also the paid members of the dispensary. "B" class members are individuals residing in the area of the operation of the dispensary.

The authorised capital of a dispensary is Rs. 1 lakh which will be subscribed by both types of members. The State government's contribution is to be three times the paid up share capital subject to a maximum of Rs. 15,000.

The running of the dispensary may not be a profitable venture in the beginning but is likely to show profit fairly soon. The Government will not only make good this loss but will also give a non-recurring grant for purchase of furniture, etc.

The dispensary is managed by a Board of Directors comprising nine members. A full time paid manager carries on day-to-day business of the dispensary.

4. Scheme for setting up dispensaries in panchayat Areas—Kerala

The scheme is intended to extend medical facilities to the rural people and at the same time to create opportunities for gainful employment for medical and para-medical personnel in the State.

Under the scheme land and building will be provided by the concerned panchayat. It will be manned by a staff of seven members including a qualified doctor.

5. Self-employment schemes for veterinary and animal husbandry graduates—Orissa and Uttar Pradesh

These schemes envisage the employment of veterinary and animal husbandry graduates in self-employment activities in rural areas.

The fresh graduates are imparted intensive practical training for a period of six months to a year in the existing institutes or establishments.

Finances for the purchase of equipment, etc., will be arranged either through the Agro-Industries Corporation or through the State Finance Corporation on the basis of merit of each case. The selected graduates will be provided with tools and equipment on their personal security with one surety.

6. Establishment of ancillary industrial estates for State Roadways Transport Corporation—Madhya Pradesh

The Government of Madhya Pradesh is establishing an ancillary industrial estate at the total cost of Rs. 45 lakhs to cater to the spare parts requirements of the State Roadways Transport Corporation. This will not only provide employment opportunities on a regular basis to about 1,100 persons comprising technical, educated, skilled and unskilled persons but also improve the economics of road transport agencies.

7. Loan assistance scheme for craftsmen—Tamil Nadu

To provide self-employment opportunities to trained craftsmen, the State Government has formulated a scheme for loan assistance in the form of tools and equipment. The exact quantum of assistance will depend upon the nature of the trade and tools required for it. The loan is interest free and repayable in equal monthly instalments.

Due to the paucity of resources, the scheme is implemented in a phased manner. A modest beginning has been made at the district level and the number of candidates limited to about 5 per cent of the sanctioned seats in each ITI in each district.

The selected candidates are issued tools and equipment after obtaining necessary personal security bond with one surety. The State Director of Employment and Training is in overall charge of this scheme.

8. Appointment of full time trained secretaries to all primary agricultural credit societies—Mysore

To improve the quality and quantity of the service rendered by the primary agricultural credit

societies, it is proposed that the post of the secretary should be manned by a full time worker. He will be given training for a period of 9 to 12 months. The trainees will be paid stipend @ Rs. 100 for matriculates and Rs. 150 p.m. for graduates.

9. Employment of persons with post-graduate and higher qualifications for translation work—Kerala

To provide employment opportunities to competent educated persons with post-graduation, the State Government is setting up a task force for translating the standard scientific and industrial publications and literature into local language. To ensure the requisite standards and quality, the selected persons are given suitable training before being engaged on the translation job.

Each post-graduate employed under this scheme will be paid consolidated emoluments of Rs. 300 p.m. whereas a person with higher qualifications will be given Rs. 400 per month.

10. Youth Service Corps—Tamilnadu

The Government of Tamilnadu has formulated the "Youth Service Corps Scheme" to channelise the energies of the educated youth in creative avenues. Men and women graduates and diploma holders under the age of 30 are eligible for recruitment. Each volunteer is recruited for a period of two years and paid Rs. 175 per month as consolidated honorarium.

Before the volunteers are sent to their respective corps, they are imparted two months training in adult literacy, modern sanitation methods, scientific agricultural methods, conducting health campaigns, etc. The syllabus of training for women volunteers includes medico-social work connected with leprosy, eye diseases, T.B., family planning, illness of children, etc.

The villages in which these volunteers are deputed are selected by the concerned Collectors and they work under the overall leadership of Block Development Officer. Each block is given a special annual budget to meet the expenditure on items required by the volunteers.

As a result of the experience gained with the Corps, these volunteers will be able to get better jobs.

11. Rural development projects—Uttar Pradesh

The scheme of rural development projects has been designed to create large number of employment opportunities for technical, non-technical and other personnel. It will give a fillip to rural economy by construction of durable assets such as metalled roads, school buildings, drinking water wells, etc.

CHAPTER VI

STRATEGIES FOR EMPLOYMENT GENERATION

A. Fiscal and Financial Measures

6.1 In our chapter on Basic Issues we have dealt with the question of the overall strategies to be adopted as part of the planning process for the promotion of employment generation and thereby reducing the incidence of both poverty and under-employment. Such strategies have to be considered as an integral part of the overall strategy of planning for economic development in the country. In this section of the present chapter we propose to take up for consideration some of the fiscal and financial measures that could be undertaken for promoting employment.

6.2 Fiscal and financial measures adopted or incentives given for the promotion or acceleration of a particular industrial sector or other economic activity form an integral part of the fiscal policies of government. Incentives, like the tax holiday, the development rebate, etc., offered by the Centre, or the sales-tax and other tax concessions to new enterprises offered by the states affect the tax liability of the enterprises and also the revenues of the governments concerned. Incentives can also take the form of expenditure on the part of the government for the provision of finance by way of grants or the supply of industrial inputs like credit, raw materials, etc., at concessional rates. The major advantage of tax rebates and concessions is that they do not need a fresh elaborate administrative apparatus and new procedures for their working; they can, however, apply only to the tax-payers and operate within the existing tax system. In these respects these differ from the system of grants, which can be given also to persons outside the ambit of particular taxes, and appropriate criteria can be enunciated for determining the eligibility for such grants. But for operating such system of grants, a new administrative apparatus has generally to be built which would involve some cost.

6.3 However, under a system in which the bulk of the finances, both short-term and long-term, passes through the public sector financial institutions, it would be possible for

the government to offer financial or monetary incentives through such institutions so as to canalise investment in suitable directions without recourse to fiscal incentives. The government has adequate power to regulate the lending pattern of nationalised banks, insurance corporations, both life and general, etc., and the borrowing pattern of non-banking companies. Thus, it is possible for the government to exercise effective control on the flow of funds to different sections and to regulate the terms of borrowing and lending. Such devices can take the form of a deliberate adjustment of the flow of funds in favour of certain sectors and/or of the concessional terms on which credit is made available to them.

6.4 Technical and promotional devices, as distinguished from fiscal and financial ones, are mainly designed to increase the productivity of industrial units and ensure better utilisation of their capacity. Common production centres and facilities, technical assistance and training programmes, help in the procurement of raw materials of proper quality and in the marketing of products, research and designing aid, organisational facilities, etc.—all these may be classified under this head. All these devices, fiscal, financial and technical are in the last analysis designed to increase efficiency and improve production either by reducing the costs of production or by increasing the sale value of the products. Both fiscal and financial measures achieve this through subsidies in one form or other, while technical devices aim ultimately at reducing real costs, though they may also have a short-term subsidy aspect.

Review of incentives

6.5 The incentives that operate in India at present were not instituted primarily for promoting employment. Each incentive was evolved in the context of particular circumstances and has over the years been modified, replaced or withdrawn in the light of experience or changes in circumstances or policies.

But whatever the objectives underlying the incentives, they generally have some impact on employment also, whether favourable or unfavourable.

Fiscal and financial incentives by the Central Government

6.6 The important fiscal incentives to investment provided by the Central Government comprise the tax holiday, the development rebate and special deductions in the case of companies engaged in "priority" industries. The major incentive having a regional basis has been until recently* the capital grant given by the government up to 10 per cent of their fixed investment to undertakings located in backward areas and involving investment of less than Rs. 50 lakhs. Monetary incentives comprise the allocation of credit in favour of preferred sectors and the concessional terms and conditions on which finance is made available. These have assumed much importance in recent years because industrial and commercial enterprises have been increasingly taking recourse to government sponsored financial institutions for their long-term capital requirements. The quantum of concession or incentive involved in such financial arrangements may be measured by the difference between the rate of interest charged by the financial institutions and that prevalent in the market.

Tax holiday

6.7 The system of tax holiday under the Income Tax law was introduced in 1949 with a view to enabling new undertakings to improve their net profitability in the initial period. Under this incentive, profits up to 6 per cent per annum of the capital employed are exempted from tax. In the budget for 1971-72, the capital base for calculating the exempted profit was changed so as to exclude debentures and long-term borrowings from the capital employed. The tax benefit is now allowed mainly in respect of owned capital and is available to new industrial undertakings, cold storage plants, new ships owned and used by an Indian company and hotels owned and managed by an Indian company with a paid-up capital of not less than rupees fifty thousand. The benefit is limited to a period of five years from the commencement of production, but the unabsorbed part of

the benefit in the five-year period can be carried forward and set-off during the three years succeeding the tax holiday period. The capitalised value of this benefit which comes to about 3.5 per cent of the capital base each year (being 57.75 per cent, which is the rate of taxation, on 6 per cent tax free profit) on the assumption that all capital is owned capital,** taking the internal rate of return at 10 per cent. If the debt-equity ratio is 1:1, the capital grant equivalent of the benefit would be 6.7 per cent of the total capital (that is, owned capital plus borrowed capital).

Development rebate

6.8 The Taxation Enquiry Commission (1954-55) recommended *inter alia* a development rebate for selected industries of national importance. The Government of India in its budget for 1955-56, however, introduced a development rebate for all industries at the rate of 25 per cent of the value of new plant and machinery installed after 31st March, 1954 during the first year of operation. Subsequently a distinction was introduced between priority industries and other industries and a somewhat higher rate of development rebate was allowed for the former category of industries. The rates of development rebate now are 40 per cent in the case of ships, 25 per cent for qualifying investment in priority industries and 15 per cent in other industries. In the budget for 1971-72, the Finance Minister announced, that the development rebate would be withdrawn with effect from 31st May, 1974 because "development rebate in respect of new investment has had a full play". The objective of the development rebate was to help the industry supplement the 100 per cent depreciation allowance based on original cost so as to cover the increased replacement cost of the plant and machinery. In its actual operation, however, the development rebate appears to have encouraged industry to become more capital-intensive.

6.9 A recent important development in respect of the development rebate may be mentioned here. In response to the demand for other fiscal concessions in place of the development rebate to impart continuing momentum to industrial growth in the country, the

*In this connection please see para 6.46.

**Taking the internal rate of return at 10 per cent the value of the benefit equals.

$$\frac{3.5}{(1.1)^1} + \frac{3.5}{(1.1)^2} + \frac{3.5}{(1.1)^3} + \frac{3.5}{(1.1)^4} + \frac{3.5}{(1.1)^5} = 13.3\%$$

Finance Minister has, in his budget speech for 1973-74 announced the government's intention to provide an initial depreciation allowance of 20 per cent of the cost of machinery and plant installed in selected industries after May 31, 1974. This is intended to provide additional resources to the concerned enterprises in the early years of their development.

6.10 There are two conditions attached to the earnings of development rebate: one, that the profits up to the 75 per cent of the development rebate (50 per cent in the case of ships) are transferred to a special reserve account, and two, that the funds are retained for the purpose of business and are not distributed as dividends at least for a period of 8 years. The rebate is given in the year in which the plant and machinery are installed, provided that they are used for the purpose of business in the year of installation; but if they are first put to use in the year immediately succeeding their installation, the rebate is allowed in such succeeding year. The unabsorbed part of the rebate can be carried forward and set off over a maximum period of 8 years. This rebate is not merely a supplement to the depreciation allowance or a capital subsidy, but it is a powerful lever for investment and expansion. It can be earned in the year of the installation of new plant and machinery, but a substantial part of it is not available immediately for distribution as dividend and is required to be retained, as mentioned above, for the purpose of the business for a period of 8 years. It, therefore, increases the ratio of owned funds to borrowed funds enabling the undertaking to go in for further investment and more borrowings. The additional investment gives rise to a further quantum of development rebate in the succeeding year, leading in turn to a further accretion to investible resources. The process thus becomes cumulative and effectively enables an undertaking to keep on investing in order to expand, to increase its assets and financial resources and to improve its debt-equity ratio.

Concessions in respect of priority industries

6.11 Industries which have a high priority may not have a high profitability and thus may not be attractive from the investment point of view. In recognition of this fact, the Finance Minister announced (in the budget for 1964-65) a rebate in corporation tax to priority industries, equivalent to 10 per cent

of the income tax and super-tax and 20 per cent of the sur-tax. The rebate was initially available to priority industries like basic metals, industrial machinery and machine tools, cement, fertilisers, paper and pulp, tractors, equipment for power generation, tea, coffee and copper. The rebate, the mode of concession and the range of eligible industries have changed considerably during the last 8 years. In the budget for 1971-72 the tax exempt part of profits in respect of priority industries was reduced from 8 to 5 per cent and the list of priority industries which had been considerably enlarged was shortened by excluding therefrom aluminium, motor trucks and buses, cement and refractories, soda ash, petro-chemicals and automobile ancillaries. However, this concession has now been withdrawn completely with effect from the assessment year commencing on 1st April, 1973.

Interest Concessions

6.12 Almost the whole range of interest rates in India is subject to regulation by the government. Possibly, the only rates of interest which reflect more or less the true market conditions, are the rates of interest on company deposits, the bazar bill rate and the rates of interest prevailing in the unorganised financial markets.* The yield on equities is, of course, not directly controlled by the policies of government, but is dependent on several factors including the normal rate of interest and the rates of corporate taxes.

6.13 The element of subsidy in loans given by the financial institutions on concessional terms can be estimated by comparing the rates of interest charged by them with those obtaining on company deposits. Financial institutions charge interest on rupee loans at an effective rate of 8 per cent, exclusive of the rebate of $\frac{1}{2}$ per cent for prompt payment. The rates allowed by companies on public deposits vary a good deal depending upon the standing and the credit worthiness of the company. Even good companies are reported to be paying on deposits interest at 9 to 12 per cent while some other companies are reported to be paying even higher rates. These deposits are also for a short period of one to three years and are entirely unsecured. The loans by financial institutions are on the other hand, secured and for longer periods. If a suitable allowance is made for these two factors, the difference between the rates of interest charged by the financial institutions

*The rates of interest in unorganised markets are subject to ceilings under the state legislation.

and the normal market rate of interest might be of the order of 2 to 3 per cent. The element of subsidy in the concessional rate of interest can thus be taken to be at least 2 percentage points and on this basis, the grant equivalent of the benefit involved in such loans from financial institutions taking the effective period of the loan as 9 years,* would amount to about 11.5 per cent of the capital borrowed.

Special concessions to backward areas

6.14 Though the reduction of regional imbalances has been one of the important policy objectives of Indian planning, no specific incentives designed to attain this objective were, it seems, provided till recently, and whatever incentives were granted were neutral with respect to the location of industries. The setting up of large scale industries in some of the states, such as Bihar, Orissa and Madhya Pradesh appears to have been the main feature of the policy adopted by government with a view to reducing regional imbalances.

6.15 Recently, however, an important measure to promote balanced regional growth was taken as a result of the decisions taken by the Planning Commission on the reports of two Working Groups set up by them to study the question of regional imbalances. One of these, namely, the Wanchoo Working Group made a number of suggestions for providing fiscal and financial incentives to industries in the backward areas; and the other namely the Pande Working Group, suggested a number of criteria for the identification of backward areas. The Wanchoo Working Group recommended a number of incentives including those to be given by (1) financial institutions, (2) the Central Government, and (3) State Governments and Union Territories. On the basis of this Working Group's report, the Planning Commission decided that a special scheme of concessional finance for all new industries should be adopted by financial and credit institutions and made applicable in the backward areas of all States and Union Territories. In consultation with the states, they prepared a list of more than 200 such districts in which the newly started industries would be eligible for concessional finance under this scheme. The financial institutions including the Industrial Finance Corporation

and the Industrial Development Bank of India are accordingly operating special schemes of concessional finance for new industrial projects in the backward districts. The rate of interest under these schemes is 7 per cent (with a penalty of $\frac{1}{2}$ per cent for default). These loans are also for longer periods, namely, 15 to 20 years (against the normal period of 10 to 15 years) and the terms of repayment allow for an initial moratorium of 5 years (against the normal period of three years). The capital grant equivalent of the concession involved in these loans comes to about 20.9 per cent of the capital borrowed as against 11.5 per cent in the case of normal loans as mentioned above. Taking the component of loan from such public financing institutions at 10 per cent of the total capital investment (both owned and borrowed), the net advantage to the undertaking would be 2.1 per cent of the total capital.

6.16 On the recommendations of the Wanchoo Group, it was also decided by the Government of India to subsidise the setting up of industrial units in selected backward areas both in the private and the public sectors, the subsidy being 1/10th of the total fixed capital investment of projects, provided that such capital investment did not exceed Rs. 50 lakhs in individual cases. This capital subsidy was to be available for industrial schemes in two districts in each of the nine states and in one district in each of the other states and union territories. Moreover, this capital subsidy by the Central Government as also the concessional terms of loans allowed by the financial institutions were to be in addition to the incentives offered by the state governments themselves.

Price preference to small scale units

6.17 The central as well as state governments give price preference of 15 per cent in respect of purchases from small scale units. This preference helps small scale units to compete more effectively with large scale units who may have quoted a price below the price quoted by a small scale unit. Under the present tendering system for government purchases, the invitations to tender are issued in general to which all units, whether in the

*This has been calculated on the basis of the period of moratorium of three years plus half the period of 12 years over which the loan has to be repaid in equated instalments :-

$$\frac{2}{(1.1)} + \frac{2}{(1.1)^2} + \dots + \frac{2}{(1.1)^n} = 11.5$$

small scale or large scale sector, are free to respond. In the consideration of the tenders received, if the lowest tenderer happens to be a small scale unit, this preference does not come into play at all. However, if the lowest tenderer is a large scale unit, the cases of those small scale units which have quoted prices ranging from 0 to 15 per cent above the price quoted by the lowest large scale unit, are considered, but out of them only the small scale unit which has sent the lowest quotation within 15 per cent above the price quoted by the lowest large scale tenderer, would get the order. Thus, the quantum of the preference may not in all cases amount to 15 per cent, but the small scale unit may get an order with a price preference ranging from 0 to 15 per cent above the lowest quotation of the large scale unit, depending on the quotations received. This policy of price preference is thus helpful in enabling the small scale units to secure a part of the government orders, though the quantum of benefit accruing may be less than 15 per cent in particular cases.

Incentives by state governments

6.18 The incentive schemes of state governments vary a good deal. They have, no doubt, certain common features like encouragement to small scale industries, development of backward areas*, etc. The mode and extent of the incentives or assistance are, however, not uniform. It would be cumbersome to make a quantitative evaluation of the incentives offered by each state government. The position can, however, be illustrated by giving an outline of the structure of incentives in one of the states, say, Maharashtra.

6.19 The Maharashtra Government initiated a new package scheme of incentives with effect from April 1, 1969. The scheme includes the following incentives:

1. Interest-free loans either to 'recoup' the sales-tax paid or to invest in fixed assets,
2. Relief in electricity tariffs, octroi duty, water royalties and non-agricultural assessment on land,
3. Contribution towards the cost of feasibility studies,
4. Support for obtaining industrial licences, loan guarantees, assistance in technical training of personnel and contribution towards the cost of industrial housing, and

5. Preferential treatment for government purchases.

The incentive aspect relevant for enhancing profitability is particularly evident in the first two items, while the remaining items are more or less in the nature of facilities or assistance.

6.20 The sales-tax refund scheme relates to the central and state sales-taxes paid on raw materials purchased and finished goods sold. It consists of two parts: the first part is relevant to new industrial units started in the under-developed areas of Maharashtra. The refund is given in the form of an interest-free loan repayable in three annual instalments after 18 years, the amount of the loan being subject to a maximum of 8 per cent of the investment in fixed assets for each of the first six years from the date of production. The second part of the scheme relates to such existing undertakings as have paid more than Rs. 3 lakhs as sales-tax per year for the last three years. The total tax credited in three years will be refunded in the form of a long-term interest-free and unsecured loan repayable in three annual instalments starting from the end of 18th year after each disbursement. This loan will be subordinated to the equity of the investing company. The benefits mentioned under the second part are also available to an existing unit in the under-developed areas if its total tax liability during each of the three consecutive years prior to the year in which the application is made is more than Rs. 1 lakh per year as against Rs. 3 lakhs in the case of existing units in other areas. It has been calculated that the capital grant equivalent of these incentives would, under the most favourable circumstances, be 28.7 per cent of the fixed assets in the first case and 20.5 per cent of such assets in the second case.

6.21 The value of the concessions in respect of electricity tariff, octroi duty, etc., varies considerably with the product and location of the industry. The electricity tariff concession is available for a period of five years and is meant to bring the charges for electricity in line with the electricity tariffs applicable in Bombay. Exemption from the payment of royalties in respect of water taken from public sources is for a period of six years.

6.22 Unlike the central incentives to industries, however, the facilities and incentives offered by state governments suffer from a handicap. As they have to operate in relation to the incentives offered by other states in the

*For this purpose different states have different schedules which lay down the areas in which the concessions are available.

country, it is likely that some of the state incentives have the effect of diverting industry from one state to another, or that many of them just compete with and cancel out the attraction of similar concessions offered by other states. If one state offers new industries exemptions or concessions, say, in respect of sales tax or electricity charges, other states also feel impelled to do so and as a result, there may not be much advantage to the country as a whole. Besides, the linking of the concessions to the sales-tax paid, the electricity consumed, the water used, etc., does not, also, seem to have much rationale except in cases where there are some special disabilities in regard to these items from which a state suffers; in other cases the working of the concessions become linked with extraneous factors which have no relevance to the needs of the case. The states' viewpoint would be that in attracting new units by giving them exemption from sales-tax, etc., they really lose nothing; and that by accepting the temporary loss of additional revenues, the accrual of which would have been a doubtful proposition, they get the advantage of continuous development of industries within their borders. This viewpoint has, however, no relevance or significance from an all-India point of view. There is also a possibility that such competing incentives may result in widening the disparities between states, since the more advanced states are in a better financial position than the more backward states to give such concessions to industries, and are also better equipped to implement them effectively. We are of the opinion that efforts should be made to bring about better harmonization of such incentives or devices amongst the states, and that the major concessions to industries should be determined on principles agreed to at the national level, having due regard to the great need for promoting the establishment of new industries in the more backward states and regions.

Current credit facilities to priority sectors

6.23 Some of the incentives cannot be reduced to the form of capital grant equivalents. For instance, one important development that has recently occurred is the extension of organised bank credit facilities to agriculture and small scale industry, for example, the advances made by scheduled commercial banks to these priority sectors recorded a rise of about 153 per cent between June, 1969 and June, 1972.

6.24 Besides, specific targets for loans to the weaker sectors have also been laid down and new concepts of credit worthiness have

been introduced. The benefit of these measures would be of a two-fold nature. Some small scale units would have recourse to bank loans to replace their existing borrowings from private unorganised sources, while others, both in industry and agriculture, would now find themselves in a position to go ahead with their productive schemes on account of the availability of credit for the first time on suitable terms. As a result of these new credit facilities, there would be a significant change in the attitude of new entrepreneurs in matters of investment and production. This cannot be easily evaluated in monetary terms, though its favourable effect on employment cannot be gainsaid. The provision of common facilities, the allotment of industrial sites, etc., would also have a favourable effect on promoting investment in the small scale sector.

Criteria for incentives

6.25 As mentioned earlier in this chapter the present incentives to industry have been evolved in a somewhat *ad hoc* manner and for various purposes in response to immediate problems and the needs of a diverse nature. These incentives and arrangements have been changed from time to time, but hardly as a result of any overall review and evaluation.

6.26 In laying down criteria for the selection of a particular type of incentive, it is necessary to define its purpose as well as to consider its relative importance in the overall context. It is also necessary to consider whether the incentive would, either by itself or in combination with other factors, achieve the purpose of promoting employment. In case of incentives in the form of concessions or rebates in taxes, it is necessary to bear in mind the fact that such concessions imply a loss of public revenues which it may not always be possible to make good. While in some cases this loss of revenue may be made good by the rapid expansion of the base or coverage of taxation, in other cases there may be a long term loss of revenues. The net loss in public revenues may affect the capacity of the government to maintain or to expand the level of public services. In some cases, such tax incentives also may be open to abuse by unscrupulous promoters and some of them may also undermine the foundations of a sound tax structure which should be based on considerations of equity and equality of treatment for all. Besides, an incentive given for a particular purpose may run counter to another objective of public policy, and it may thus contribute to defeating the latter objective. In view of these considerations, the various objectives of the public policy would

have to be balanced and a suitable combination of incentives devised which will synthesize the conflicting aims and objectives in the best possible way.

6.27 Under-developed or backward areas have been defined differently for purposes of concessions by different authorities, viz., the Central Government, the all-India term lending institutions, the state governments and state financial institutions. An integrated approach to the problem of economic development of such areas has still to be worked out. Since such development of these areas requires also the building up of proper infrastructure the present position regarding the use of incentives for promoting such development has involved a somewhat fragmented and less efficient use of scarce resources. A more purposeful, vigorous and coordinated policy in regard to incentives combined with action to build up infrastructure would, therefore, appear to be called for.

6.28 The main objective of any scheme of incentives should be to intensify and accelerate the process of economic development which would also assist in generating more employment. For the purpose of increasing the pace of development, the rate of saving and investment has to be stepped up to the maximum possible level. For attaining the objective of quick economic growth a multi-pronged effort would have to be made in several directions, for example, (i) the utilisation of existing capacity more fully so as to create larger job opportunities with existing equipment; (ii) choice of labour-intensive and worthwhile technology; (iii) an alteration of the pattern of demand and consequently of production in favour of labour-intensive products; (iv) the regional dispersal of industry; (v) increase in exports; and (vi) the stimulation of saving and investment. Of these, particular importance should be attached to the regional dispersal of industry and a wider diffusion of industrial activity for the generation of employment.

Suggestions for new incentives

6.29 Owing to the lack of reliable statistics and the simultaneous operation of various controls and regulations, it becomes difficult to assess the impact of the various existing incentives. It appears, however, that the measure of success achieved by them in accelerating the process of development, and consequently in generating more employment, has been somewhat limited. The system, therefore, needs to be re-oriented with reference to (i) the total

quantum of incentives that should be offered, (ii) the type of incentives that should be offered, and (iii) other steps that may be simultaneously needed.

6.30 The quantum of incentives has to be determined with reference to the needs and circumstances of the situation regarding the relative level of development of industries and it should be adequate for achieving the objectives in view. In the case of international trade even a moderate level of tariffs and quantitative import controls can be effective in promoting the industrialisation of less developed countries. In the case of regions, *inter se*, of the same country, however, such measures are not feasible. In view of the freedom of interstate trade and commerce, the free movement of the labour force between regions and the facility of transfer of earnings and profits, it becomes necessary to have local incentives which are sufficiently high in their level and incidence, so as to attract industries to the less developed regions in the country. A new industry established in an under-developed area of the country also has to face competition from similar industries already established elsewhere, and a higher level of incentives becomes, therefore, necessary in the initial years to enable the new industry to get established properly. The level of such incentives as well as their duration has to be considered with reference to the other incentives already in operation. The effect of the incentives on the exchequer has also to be examined so as to avoid an undue loss of revenue leading ultimately to the curtailment of development efforts in other directions. It appears desirable that while providing incentives, for, say the greater use of labour, certain disincentives should also be introduced against the greater use of capital, as such a combination of incentives and disincentives would tend to reduce their net impact on the revenue resources of the government.

6.31 In recent years, there has been a trend in favour of capital-intensive technology as a result of modernisation and great sophistication in the methods of production. Undoubtedly, it would be wrong to deny ourselves deliberately the advantages of modern technology, where it can economize on the use of both labour and capital, or where it is necessary due to the nature of production processes or for reasons of export promotion. At the same time in conditions of scarcity of capital, it is essential to economize on the use of capital and to encourage the greater use of labour. Many of our existing incentives, however, tend to operate in the opposite direction, and, therefore need to be re-oriented.

Removal of interest subsidy

6.32 As the discussions above have indicated, there has been a hidden subsidy in the loans on concessional rates of interest charged by the financial institutions. This subsidy should, as suggested by our Working Group, be done away with not only with reference to the large scale but also the small scale industries as it is likely to promote a greater use of capital and the capital-intensive techniques. The increase in the rates of interest may, however, raise the cost of production particularly in those units where the share of capital borrowed from the financial institutions is large. Where such increased cost would adversely affect the development and welfare efforts, a subsidy could be given towards off-setting the increase in costs. We do not, however, think that this kind of subsidy would become necessary over a wide field. Again, in a few exceptional cases where the development of a particular industry is considered to be of vital importance on the ground of its potential contribution to the national economy and where a subsidy in another form would not be feasible, the financial institutions may be permitted to charge concessional rates of interest.

6.33 The above observations should not, however, be taken as affecting the existing scheme of concessions in interest rates on advances made by the nationalised banks to selected low income groups.

6.34 Apart from the advances under this scheme and a few exceptional cases mentioned earlier, the rates of interest and the durations of loans by financial institutions should be determined on normal business principles without involving any concessions or subsidies.

Subsidy to employment

6.35 The question of a subsidy linked to employment was considered by our Working Group on Financial and Fiscal Measures. A number of alternatives are possible in this regard, such as, making the employment of labour more attractive, treating wages more favourably than other items of expenditure for tax purposes, providing relief in respect of social security contributions of the units etc.

6.36 Our Working Group has pointed out, however, that a number of difficulties are likely to arise in connection with such employment subsidy. In the first place, to keep the

financial costs within manageable limits and at the same time to have an impact, the subsidy should be given in respect of the additional employment rather than in respect of the total employment. There may be a risk of the additional employment being manipulated by the break-up of existing units, the closure of an old unit, the starting of a new one, etc. In view of administrative limitations the operation of such a subsidy would probably have to be restricted at least in the first instance only to larger enterprises. Further as the subsidy would be related to the direct employment within each enterprise, it would not be possible for agro-industries, which are important for the development of backward areas and would generate more indirect employment than direct employment, to derive significant benefits from such a subsidy. In view of these difficulties, this Working Group expressed the view that though a subsidy to organised industry based on the number of persons employed appeared to be the best device to encourage the adoption of labour-intensive techniques and thereby to increase employment, this kind of subsidy had to be ruled out, both on administrative and financial considerations. On the other hand, our Working Group on Industries have favoured a subsidy linked to employment, as they feel that if expenditure on wages would be treated more favourably for tax purpose, it could lead to a greater use of labour-intensive techniques of production. They have, in this connection, suggested that the wage bill of a unit can be given some weightage, say, equal to 1 and 1/10th for purpose of calculating taxable profits. If, for instance, the wage bill as a deductible item amounts to Rs. 100 it would be taken as Rs. 110 after giving the weightage. Further, we observe that the Direct Taxes Enquiry Committee* have also considered the question of providing concessions for employment-oriented industries, in the light of the experience of other countries and other relevant considerations. They have recommended** that a tax rebate ranging from 5 per cent to 10 per cent of the tax payable be allowed to an assessee in respect of income derived from a labour-oriented industrial unit newly set up after a specified date. The rebate should be admissible for a period of five years beginning from the year in which the operations commence. The benefits from the suggestion made by the Direct Taxes Enquiry Committee would, however, be available only in respect of newly established units, while it is desirable that

*Appointed under the chairmanship of Shri Justice K. N. Wanchoo in March, 1970.

***Ibid.*

suitable incentives linked to additional employment should have a wider coverage including even the existing enterprises. We are, therefore, of the opinion that a relief on the basis of the additional labour (above the level existing in the year prior to the commencement of the scheme) employed by the existing units and of the total labour employed by new units, should be provided in the form of a tax rebate equal to a percentage of the tax payable which should be linked with the wage bill for additional labour employed with a suitable weightage for wages paid to the industrial workers.

6.37 Our Working Group on Financial and Fiscal Measures have examined the relevant merits of the incentives linked to productive employment and those linked to production, profits or investment and have made the following observations on subsidies related to capital:—

“The major defect of the existing system of incentives is that most of the concessions are linked to capital and some to fixed capital and, therefore, entrepreneurs may be induced to use more of capital. To stimulate production and investment in the private sector, capital and enterprise must be attracted and this can only be done by making the rate of return attractive. Assuming that this cannot be done through a change in the external environment, it has to be managed through incentives.”

6.38 After examining the various aspects of incentives this Working Group have suggested that in the case of priority industries, ‘a powerful uniform incentive not related to investment that can be offered to them’ would be to provide for complete exemption of their profits from income tax for a period of, say, three years from the commencement of production. This would differ from the existing tax holiday as the exemption from tax would not be limited to a certain percentage of return on the fixed capital and, therefore, it would not have the result of promoting more capital-intensive investments. We, however, feel that such a general exemption of profits from taxation without prescribing any upper limit may not be in the general interest as it may enable certain highly capital-intensive industries to escape taxation of substantial profits. We, therefore, feel that it would be better to provide for a rebate from the tax liability on the basis of the total wage bill as we have already indicated in paragraph 6.36 above.

6.39 A further suggestion by our Working Group is that a system of investment reserves should be considered on the lines of the one operating in Sweden. While in Sweden such a scheme is used mainly as a counter cyclical measure, its modified version can be used in our economy for the growth of certain selected industries and for the development of selected backward areas. Industrial concerns may, under this proposal, be permitted to transfer upto 30 per cent of their pre-tax profits to a special investment reserve fund. The entire amount of this fund should be allowed to be utilised for investment in specific types of investment activity in selected backward areas. If the concerns/companies desire to use the reserve for other purposes, they should be permitted to do so only after the lapse of a minimum prescribed period so as to ensure that the reserves once set apart are not dissipated immediately after securing the tax advantage. Incidentally, such a scheme would also provide an incentive to corporate savings and increased investment particularly in backward areas. We recommend, therefore, that in the case of priority industries and of industrial units in backward areas, the units should be permitted to create a special investment reserve fund by transferring to it upto 30 per cent of their pre-tax profits to be utilised in priority industries or other specified types of investment or for investment in selected backward areas.

6.40 The Working Group on Industries have observed that whatever might have been the effects of the development rebate on the choice of techniques, it has been greatly helpful in strengthening the finances of the entire industry—small and big—and that in a situation of rising prices of equipment and machinery, it would be necessary to devise a scheme by which the total accumulated depreciation would be adequate to cover the replacement costs of plant and machinery. In this connection it will not be out of place to mention here that the concession of initial depreciation allowance of 20 per cent recently allowed by the government would not serve this purpose. We feel that this concession would suffer from serious limitations. In the first place, under the new system the total depreciation would be allowed only up to the original cost of the plant and machinery and it would not take into account the subsequent rise in prices, or the replacement cost, of such plant and machinery. Secondly it has been announced that this concession would be admissible only to selected industries. Though the list of such industries has not yet been published, obviously the application of the concession will be confined

to a limited number of industries and not to all the industries as was the position in respect of the earlier development rebate. We are inclined, therefore, to agree with our Working Group on Industries that a suitable system should be devised by which the total depreciation allowed—whether it be called development rebate or additional depreciation allowance—should be adequate to cover the replacement costs of plant and machinery in our industry. One of the ways of achieving this purpose would be to mark-up the initial value of plant and machinery by a suitable proportion periodically so as to reflect the rise in prices. We consider that such periodical mark-up of the value of plant and machinery is essential in the context of the rising prices of plant and machinery and a suitable system should, therefore, be devised for this purpose with such necessary conditions and procedural details as may be prescribed.

6.41 Further, at present the profit or gain arising from the sale or transfer of a capital asset is, subject to certain exemptions, chargeable to tax under the head 'capital gains'. We would suggest that as a measure to stimulate investment in new industrial undertakings, the long-term capital gains arising from the sale or transfer of an asset should be exempted from the capital gains tax if the proceeds are invested in a new industrial undertaking.

Supporting facilities

6.42 It has been found from experience that in the case of small scale industries, assistance in the form of promotional and technical facilities has a very important role to play. Such facilities could take various forms such as common production centres, facilities for testing and quality control, training, production of prototypes, market information, preparation of designs and project reports, etc. This position is generally recognised and efforts in these directions are already being made. However, we understand that these facilities have, by and large, been made available in the state capitals and in some other large industrial centres in the states. We feel that there is need for making determined and sustained efforts for extending these facilities to other centres where a number of small units may exist and to ensure that they are made available to all the small scale units. In the case of medium and large scale industries also, certain facilities like research and development activities, market research, quality control and preshipment inspection, etc., would be useful

in accelerating their growth and maintaining their viability.

Development of backward areas

6.43 It is generally accepted that a definite effort has to be made for dispersing industries to backward areas. The development of industries in areas selected for this purpose will require substantial effort through the provision of infrastructural and other facilities which are normally lacking in such areas, and of suitable incentives.

6.44 We feel that an appropriate agency to promote the development of backward areas would be a separate organisation, which may be called the Regional Development Corporation, to be set up in different areas. Such corporations should be responsible for selecting suitable regions in backward areas where growth centres could be established and developed. The selection of the backward areas may be done in consultation with a body at the national level, such as the Industrial Development Bank of India which has already done some work on area surveys and area planning. The selection of industries to be permitted in such backward areas should mainly be on economic ground, though social considerations may also be kept in view, for instance in a dry farming tract, the development of viable agriculture and related industrial activities may be considered. Such development also could be undertaken around the existing industrial complexes particularly where there has been some development of ancillaries and where economic and social infrastructure of some order exists. The Regional Development Corporations could be entrusted with the task of coordinating the activities of various authorities concerned with matters such as those in respect of land, power, water facilities, as also of the authorities dealing with licensing, material supply etc. These corporations should play an active role in the preparation of area development plans and coordinate the efforts of the agencies concerned such as state level agencies, term lending institutions and nationalised banks for the implementation of the projects prepared by them. They should also select suitable agencies for carrying out the projects. In the initial period certain ancillary facilities may be provided if suitable agencies are not available, such as, veterinary facilities in the case of a dairying project, specific training facilities, construction of approach roads, etc. In short, although the role of these corporations is generally expected to be that of planning and promotion, they may, themselves play a direct entrepreneurial role for the removal of specific bottlenecks to area development.

In order to assist the state governments to set up such regional development corporations, the Government of India may consider providing some part of the seed capital. The state governments may also be suitably assisted, where necessary, in obtaining the services of managerial and technical personnel. Training facilities for such personnel may also be provided.

6.45 The pattern of development of backward areas that we visualise is such that by the end of a fixed period, say, five to ten years, these areas should grow into developed ones so that at a later stage special attention would no longer be required in their case. We, therefore, recommend that there should be a periodical review of the position in such selected areas.

Incentives to industries in backward areas

6.46 A major handicap in the way of development of backward areas is the lack of local entrepreneurship and skilled manpower. In order to develop and attract entrepreneurship, sufficient inducement would be required as the chances of success and profitability of economic activities in such areas are rated low. A development rebate or the exemption of profits from taxes would, therefore, not be effective in promoting industries in such areas. A capital grant would be more effective for this purpose, and it would also have an immediate impact since it would accrue immediately and provide liquid resources for the operation of the new industries. Recently the Finance Minister made an announcement at the time of presenting his budget for 1973-74, that in order to provide a stimulus to investment in the backward areas, he proposed to accord preferential tax treatment to industries to be set up in such areas after March 31, 1973 by allowing a deduction equal to 20 per cent of the profits derived by such undertakings in computing their taxable profit. He also proposed to raise the ceiling on investment eligible for subsidy in case of such industries from Rs. 50 lakhs to Rs. 1 crore as well as to raise the percentage of the subsidy from 10 to 15 per cent of the investment. These measures will, no doubt, provide a strong stimulus for the setting up of the industries in the backward areas.

This subsidy is, however, available at present only for a limited number of districts over the country. In order that there should be a more accelerated development of industries, we consider that this concession of capital subsidy should also be extended to other backward areas, determined on the basis of the recommendations of the Pande Working

Group. The quantum of subsidy should also, in our view, be increased further from 15 per cent to 20 per cent of the fixed capital. We are making this suggestion for increasing the quantum of subsidy, even though it would involve greater expenditure to the public exchequer, since we are convinced that such subsidy to be really effective for the development of industries in the backward areas should be adequate and that its quantum should not be determined by short-term revenue considerations but by the long-term economic benefits that are likely to accrue to the country as a whole by the process of rapid industrialisation. At the same time it is necessary to take vigorous measures for the development of infrastructural facilities in these areas, since without such development the provision of capital grant alone would not provide adequate stimulus for the growth of industries.

6.47 In addition, the concession of a transport subsidy equal to 50 per cent of the cost of transport of both raw materials and finished goods for all new industrial units to be set up should be admissible in other difficult and inaccessible areas also, as it is admissible, we understand, at present in the states of Jammu & Kashmir, Assam, etc.

Inducements to mobility of personnel of critical categories

6.48 The movement of industry to backward areas and growth centres will call for some mobility of labour from other areas. Advance planning will have to be done for providing adequate housing and other basic amenities to such labour, and also for meeting the costs of movement. An elaborate system of such allowances has been successfully operated in some other countries. Such assistance is provided generally to cover a number of items, for example: (i) travel allowance—comprising the cost of journey undertaken, subsistence expenses and removal allowances, (ii) starting allowance, (iii) settlement allowance, (iv) family allowance, etc. In this country, due to the large number of the unemployed and the limitation of resources, it would not be feasible to provide such assistance for all categories of workers and in all areas. However, a scheme somewhat on these lines restricted to certain areas having special features or to some categories of skilled personnel who may be in short supply in particular areas, might be introduced on an experimental basis.

Fuller utilisation of capacity—measures for multiple shift working

6.49 Among the measures that can be taken for increasing industrial output and employment are the fuller utilisation of the existing

capacity and special encouragement to the export of industrial goods, which are produced through labour-intensive processes. The multiple shift working of the existing capacity which may at present be working only on one shift basis, will enable production to rise without requiring fresh capital investment, and it will also result in higher production to meet the existing demand wherever the products are in short supply. This aspect of the matter is being dealt with in somewhat greater detail in paragraph 8.30 of this report. The double or triple shift working of the industry will also result in the employment of more labour force to operate those shifts without involving any increase in capital investment. Thus it will be possible to provide employment for a larger number of workers with the same plant and machinery by its more intensive utilisation. The industry should, therefore, be encouraged to go in for double or triple shift working not only from the point of view of increased production but also from the point of view of increased employment. As the plant and equipment working double or triple shifts would be subject to greater wear and tear, the depreciation allowance for such additional shifts may have to be increased in order to cover such wear and tear. The present system of limiting the depreciation allowance for the second and third shifts to 50 per cent of that admissible for a single shift may not adequately cover the cost involved in the more intensive use of machinery and the consequent greater wear and tear of the machinery or provide enough resources for the replacement of such plant and machinery. In our view, the existing provisions in this respect would, therefore, need to be reviewed for this purpose.

6.50 Our Working Group on Industries have also suggested that every inducement should be given to industry to work on a three-shift basis. They have further suggested that in order to provide necessary incentive for this purpose, a tax rebate on increased production arising from additional shift working should be allowed; for example, in the case of industries where the processes are not continuous, tax credit can be made available in respect of the additional production attributable to the third shift. This incentive could, in their view, be in the form of a rebate of 5 to 10 per cent in the normal excise duty. After having given careful thought to the relevant aspects of the matter, we consider that industry should be encouraged to introduce multiple shift working by the grant of suitable fiscal and financial incentives, with adequate safeguards to ensure that these benefits are properly linked to the increase in production and employment ac-

tually resulting from the additional shifts. Whether such incentives should take the form of increased depreciation allowance for the double or triple shift working or whether it should be in the form of a certain rebate on the normal excise duty payable—these are points for consideration by government. What we would like to emphasise, however, is that the incentives to be given should be adequate and should provide sufficient inducement to the industry to go in for double or triple shift working.

Export promotion

6.51 As mentioned earlier, giving encouragement to the export of industrial goods, which are produced through labour-intensive processes, can be one of the measures to increase employment opportunities. One of the major objectives of planning is the attainment of economic self-reliance. Essentially self-reliance means that we should meet our requirements of goods and services from within the country to the maximum extent possible, and that our import from abroad should be limited to what we cannot produce within the country or what we find is uneconomic to produce in terms of comparative advantages and, even more important, that we should be able to pay for these imports with our export earnings. As the economy progresses, the import requirements also increase because the domestic production of new lines of manufactured goods and services increases the overall import coefficient through larger imports of capital goods, industrial raw materials, components, parts, spares, etc. Moreover, greater export earnings are required not only to meet the maintenance imports and the needs of plan projects but also for meeting our foreign debt obligations.

6.52 In this connection it may be mentioned that the document entitled "Approach to the Fifth Plan" visualises an average growth in gross national product of 5.5 per cent during the period of the Fifth Plan and an accelerated industrial growth rate of 8 to 10 per cent per annum. With this acceleration of industrial production and the overall growth of the economy, the requirements of raw materials, intermediate products and components would increase significantly from year to year.

6.53 Moreover, an additional factor calling for a faster growth of foreign exchange earnings will be that during the last few Plan periods the country has had to depend on foreign aid of a large order for the implementation of its Plan programmes and this would result in a rapid increase in our obligations for

the servicing of this debt in the form of amortization and interest during the coming years. Such debt servicing obligations will, it is estimated, amount to an average of about Rs. 470 crores per annum from 1973-74 onwards or a sum of Rs. 2,360 crores over the Fifth Plan* (including Rs. 1,600 crores for debt repayments and Rs. 760 crores as interest on foreign debts). In other words, out of an export earnings of approximately Rs. 1,700 crores estimated to arise in the year 1972-73, an amount equal to about 27 per cent will have to be diverted to meeting the debt obligations alone. To some extent even the import substitution measures in the initial stages would necessitate the growth of direct and indirect import requirements. Further an essential pre-condition for the achievement of a rate of growth of 8 to 10 per cent in the industrial sector is the realisation, according to schedule, of the production targets set in the agricultural, minerals and other input supplying sectors. In the event of any shortfalls in any of these sectors, not only would the growth of industrial production suffer but imports may have to be stepped up to higher levels than originally visualised. Imports in the coming years will, therefore, have to be substantially higher on account of all these factors. This fact also would highlight the crucial role that will have to be played by exports in augmenting the earnings of foreign currency, not only for the servicing of the external debt in the form of amortization and interest but also to pay for the larger volume of imports in the coming years to meet our requirements and to achieve the objective of economic self-reliance. Moreover, it is quite on the cards that the net availability of foreign aid will decline during the period of the Fifth Plan. Therefore, this factor also would call for less reliance on foreign aid and increased export effort for enlarging our foreign exchange resources and for meeting our import requirements.

6.54 Keeping in view these factors, the Fourth Plan as well as the document entitled "Approach to the Fifth Plan" envisages an annual rate of growth of 7 per cent in our exports. The Export Policy Resolution, 1970 of the Government of India expresses the view that the expansion of export earnings is as crucial for financing the Plan as the mobilisation of domestic resources and that in order to achieve self-reliance and to reduce dependence

on external assistance, export earnings need to be expanded at a high rate. It emphasises that a steady growth of export earnings at the rate of 7 per cent per year can be achieved only if adequate export performance is accepted as a national goal of very high priority, and sets out the commitment of the Central Government to pursue vigorously appropriate policies in this regard. Over the first three years of the Fourth Five Year Plan, while our exports have been rising, the growth rate has been uneven varying from 4.1 per cent in 1969-70 to 8.6 per cent in 1970-71 and 4.6 per cent in 1971-72**. However, on a rough basis, the rate of growth of exports during the first three years of the Fourth Plan works out at a compound rate of nearly 5.8 per cent a year as against the target of 7 per cent annual rate of growth stipulated in the Fourth Plan. This shows that the target envisaged in the Plan is not likely to be realised unless well planned and sustained efforts are made for the purpose. Our traditional exports in the recent past have been more or less stagnant. Further, the scope for the expansion of these items of export is limited to a considerable extent by several factors including the conditions of international trade, the requirements of the domestic market, etc. While it may not be possible to expand at a fast rate the export of traditional items, it will be necessary to ensure not only that the exports of such items do grow, albeit at a slow pace, but also that the markets abroad are held by us and not lost to our competitors. For this purpose it will be necessary to take steps to improve the competitiveness in the world markets of such traditional items and to maintain at present level—if it be not possible to increase it—the unit value of such items. On the other hand, there is considerable scope for diversifying our exports and increasing the export of non-traditional items. For this purpose exportable surpluses have to exist and the production potential of the country has to be geared to the task of generating such surpluses to meet the requirements of export markets as also of domestic consumption.

6.55 The country's capacity in several spheres, e.g., industry, agriculture, mining, transport, etc., would, therefore, have to be augmented at an adequate rate so as to cater fully to the increasing overall demand. Expansion of capacities in these sectors would have a beneficial effect on the economy in

*Approach to the Fifth Plan—1974—79—p. 13.

**The figures of exports for the full period of the financial year 1972-73 are not available, though the export performance during the first five months of that year is reported to be quite encouraging.

general and on employment potential of the various sectors. For instance, the markets would result in greater production in factories and on farms and in generation of greater employment. Increased production of industrial goods would have a multiplier effect in expanded capacity and employment in related sectors like transport, communications, internal trade, etc.

6.56 The government are taking a number of measures to promote exports, for instance, export incentives and/or subsidies, drawback in customs, excise and certain other local duties paid by export industries, import replenishment schemes, concession in railway freight rates, preferential treatment in grant of other facilities like credit, allotment of scarce raw materials to exporters, export markets development allowance, etc.

In addition to the measures already being taken, we would like to emphasise the need for augmenting export earnings through the provision of fiscal incentives. One such incentive could, for instance, be in the form of a tax rebate at a certain percentage rate of the total value of exports made by a unit. A system of tax credit certificates which entitled an exporter of goods to receive a tax credit certificate for an amount not exceeding 15 per cent of the sale proceeds of exports was introduced in 1965. This concession was, however, withdrawn, we understand, on the devaluation of the Indian Rupee in June, 1966. We consider that at the present stage a system of tax rebate related to the total value of exports made by an industrial unit or an export house should be allowed. We further feel that a system of import entitlement under which import licences are given to eligible exporters to import raw materials and other essential items required for the production of goods meant for export should also be adopted to promote the export of labour-intensive goods. In some countries of the world, special tax concessions are granted to new factories engaged in certain labour-intensive industries and products on the condition that their output is entirely exported. We consider that the policy of giving tax concessions in respect of export of specific items of labour-intensive industries such as products of handloom, handicrafts, jewellery and other objects of art, etc., should be accepted and necessary fiscal, administrative and other measures taken in pursuance of this policy. For this purpose, certain relevant points like the identification of industries to be treated as labour-intensive, the type of concessions to be given, etc. would have to be considered. It is a recognised fact that there

is a steadily increasing demand in affluent countries for certain labour-intensive products of the country. The production of such articles and their marketing, etc., should be organised on an adequate scale so as to increase, both quantitatively and qualitatively, their production at home and sales abroad.

6.57 Already we are exporting industrial machinery, components and spare parts and other sophisticated items abroad and our industries have begun to compete in foreign markets on the basis of their quality and competitiveness. Unless we make these exports more competitive, we may not be able to forge ahead in this field. Advanced industrialised countries offer, however, certain facilities like credit, deferred payment terms to the buyers of their industrial machinery and equipment. In view of this we consider that the government should examine the possibilities of offering similar facilities and concessions like credit to the prospective buyers abroad of our industrial machinery, equipment, etc., in order to improve, the competitive position of our products.

6.58 A suggestion is sometimes made that in order to enable some of our products, e.g., canned fruits and vegetables, to become more competitive in the world markets, it is necessary to make available to them essential materials at international prices, since the extremely high prices for such materials obtaining in the domestic markets make it extremely difficult for these industries to compete in the markets abroad. We understand that in the case of exports of certain non-traditional items like engineering industries, government is already providing the main raw materials, viz., iron and steel, at international prices to the industries. The extension of this principle in the case of other essential raw materials would also be helpful in increasing the exports of other products. The supply of essential raw materials at international prices to other industries should, therefore, be considered, if it can place an industry in a better position to compete in world markets and thereby to increase its exports substantially. In this connection a point is made sometimes that the supply of essential materials at international prices to exporters may be attended with difficulties in view of the fact that it is difficult to isolate the products meant for export market from that for home market. We think, however, that it would not be beyond the ingenuity of the authorities administering the scheme to devise means to relate the supply of essential raw materials at international prices on a prorata basis to the export values only so that such

supplies are not diverted elsewhere. In addition, the setting up of free trade zones at suitable places could also be considered. We consider that steps on these lines should be taken to assist the selected industries engaged in the production of non-traditional items to expand their exports. We recommend that all the aspects of this subject should receive the earnest consideration of government.

6.59 At present there is an obligation to export 10 per cent of their output on the part of large industrial units in the priority list. We understand that government are considering the question of imposing an export obligation of 5 per cent of their output on selected non-priority industries which use substantial imports to produce goods that are not vital for the economy. We consider this to be a step in the right direction. We, however, feel that there is a case for earmarking a larger percentage of the products of such industries for export purpose. It is also understood that there are many units in the priority list which have failed to meet their export obligations. More effective measures should, therefore, be taken to ensure that such export obligations are, in fact, met.

6.60 We have an abundant supply of skilled and trained labour well comparable to that in developed countries. This comparative advantage in manpower endowment could fruitfully be exploited for the manufacture of sophisticated machinery, spares, components, consumer goods, etc. for purposes of exports. Because of high labour costs, the present trend in developed countries is towards concentrating their attention increasingly on the production of heavy and more sophisticated items of machinery, e.g., those of the chemicals and electronic industries, etc., rather than on the production of the conventional machinery items. This is a field to which we can fruitfully divert our energies and resources and thereby exploit markets in developed countries for earning the much needed foreign exchange and generating larger employment opportunities at home.

6.61 Apart from larger exports of traditional and non-traditional items, avenues for increased exports would also have to be sought

in the diversification of the lines of export and in suitable additions to the list of the non-traditional export items. If attempts are made to process some of the items at present exported in raw form or as semi-finished materials into more finished/processed products, not only could the unit value of such items be enhanced, but the further processing/finishing to be undertaken within the country would lead to the growth of the industries concerned and consequently, of employment. A beginning in this respect has already been made in the case of tea. Similarly, our minerals like iron ore, which are at present exported in a raw state, could be further processed and exported in the form of pellets, thereby increasing their unit value. There could be a number of similar fields, where further processing/finishing could fruitfully be undertaken from the point of view of both employment as well as enhanced earnings per unit. In fact our aim should be to maximise the export of goods in as finished a form as possible and thereby to reduce to the minimum the exports of bulky raw materials and semi-processed goods. For this purpose it will be useful if the items of raw materials or minerals etc., which would lend themselves to further processing or finishing at an economic cost and without impairing their export worthiness, could be identified and their production and processing organised within the country. The task of identifying such items, making further studies regarding the type of processing, the organisation of production, etc., should be undertaken by the appropriate agencies of government. The point to emphasise is that in the future years we must increasingly export items of machinery and of finished and processed manufactured goods rather than of agricultural raw materials or ores, which, besides having a low unit value, also are bulky in size and present other difficulties in the matter of their shipment, freightage, etc.

Development of tourism

6.62 Tourism is a very important means of earning foreign currency for a country and should, therefore, be treated on a par with other export industries. In a number of countries it is one of the biggest foreign exchange earners besides being a growing source of national income. Some comparative idea of the size of the tourist traffic as also of the foreign exchange earnings arising therefrom in some other countries as well as in India during 1970 can be had from the table (19) below :

TABLE 19 : *Number of visitors and foreign exchange earnings in some countries in 1970*

Country	Number of visitors (Million)	Foreign exchange earnings (million U.S. dollars)
(1)	(2)	(3)
Canada	13.99	1192
Spain	24.10	1681
France.	13.70	1191
Switzerland	6.84	733
U.K.	6.75	1038
U.S.A..	13.17	2319
India	0.28	54

Source : Statistics and Research Division, Department of Tourism, Government of India.

6.63 However, as compared with the rapid growth of tourism in other countries, the rate of growth of tourism and of earnings from tourism in our country has been very slow and the contribution of this industry to the total earnings of foreign currency has not been significant or at all commensurate with its contribution in many other countries. This calls for an integrated development of selected areas and tourist centres and encouragement of tourist traffic. Lack of adequate hotel accommodation, transport and other facilities is the principal factor responsible for the slow growth of tourism. Even the existing facilities appear to cater to the needs of the more affluent among the foreign tourists rather than to the needs of the tourists with average means who constitute the bulk of such tourists. The needs of the less affluent foreign tourists would require to be met to a greater extent by the provision of hotel and motel facilities in and around the places of tourist interest at rates which would suit their pockets. In this connection it would be relevant to mention that one of the main attractions for foreign tourists visiting this country is our rich heritage of historical and archaeological monuments. In view of this we feel that adequate arrangements should be made for the proper maintenance and preservation of these monuments and for the provision of necessary facilities for the tourists, even though this may involve additional expenditure.

6.64 Besides having a great potential of earning foreign exchange, tourism properly developed in an integrated manner could provide substantial direct employment as also indirect employment through backward and forward linkages. In a number of countries tourism occupies a prominent place among the tertiary activities showing a fast growth potential and it is accordingly fostered and promoted through various means, including fiscal measures. The hotel and catering industries while providing considerable direct employment also provide indirect employment through various ancillary activities and occupations and provide support to other industries which cater to their needs. We are dealing elsewhere in this report with the employment aspect of the tourist industry.

6.65 We feel that all segments of the tourist industry, e.g., hotels, restaurants, travel agencies, transport operators, wild-life outfitters etc., should receive incentives and concession on the lines extended to other export industries. The priority industry concession which had been extended to the hotel industry since 1968 was withdrawn recently. We feel that the hotel industry is still at a nascent stage of development and it would be necessary to foster and promote it at least for some time so that it could adequately buttress the growth of tourism in the country.

6.66 The total number of rooms in approved hotels is expected to be about 13,000 by the end of the Fourth Plan. It is estimated that in order to cater to the increased flow of tourists which is expected to reach the figure of 8 lakhs per annum by the end of the Fifth Plan, an additional capacity of 20,800 rooms, beyond the capacity to be attained at the end of the Fourth Plan, would be required. This would involve an investment of the order of Rs. 230 crores. We feel that the hotel industry should be given fiscal incentives and tax concessions so as to enable it to meet the increased requirements of the tourist industry which has great significance from the point of view of earning foreign exchange. For this purpose a tax concession on the lines of the tax rebate which was previously allowed to the priority industries and which was withdrawn in 1972, might be considered for the hotel industry. Moreover, this industry which is recognised as a priority industry, is not allowed, we understand, some of the additional benefits allowed to other priority industries, e.g., concessional import duty on items imported for new projects. The extension of this and

other facilities like increased depreciation allowance in respect of hotel buildings and equipment, furnishings, etc., might also be considered for fostering the growth of this industry.

6.67 To conclude, we would emphasize again that in order to achieve the goal of economic self-reliance and to fulfil the targets of our plans, it is imperative that we intensify our export efforts (including efforts at promoting the tourist industry) and that in the future years, we should earn an increasingly large volume of foreign currency in order to meet our import and other requirements. All our national policies and programmes including the provision of fiscal and financial incentives must be directed towards attaining this national objective which must be given a high priority both by the government and the people of the country.

B. Some Other Measures

Shrinkage of employment in some industries

6.68 A somewhat disturbing feature of the employment trend in organised industries, specially in the private sector, has been the decline in the number of employed persons in some of the major industries like tea, cotton textiles, jute, coal, etc. In cotton textiles, the decline in the number employed was from 842,000 in 1966 to 828,000 in 1970. This was due to a steady decline in employment owing largely to the modernisation and rationalisation of the industry even though a number of new units have been set up. In jute industry, the number of the employed declined from 249,000 in 1966 to 244,000 in 1970. In the mining sector, the minerals affected were coal, iron ore, manganese ore and mica. Employment in coal mines went down from 425,000 in 1966 to 392,000 in 1970, while that in tea plantations fell from 804,000 in 1966 to 748,000 in 1970. Table (20) below indicates the position of employment in some of the major organised industries:

6.69 Among the factors contributing to a fall in employment in the organised industries were the reduced tempo of industrial production during the period of industrial recession succeeding the drought years of 1965-66 and 1966-67, the shortage of raw materials like cotton, etc., the shortage of power, the lack of demand for certain items like railway wagons, coaches and locomotives, capacity restraint in a number of important industries like paper, caustic soda,

TABLE 20 : Average daily number of workers employed

(Figures in thousands)

Industry	1966	1968	1969	1970
1)	(2)	(3)	(4)	(5)
1. Mining—				
Coal	425	395	396	392
Iron Ore	60	52	49	52
Manganes O.c	47	37	31	29
Mica	20	17	16	14
2. Plantations—				
Tea plantations	804	775	756	748
3. Manufacturing—				
Gins and presses	143	143	139	138
Tea factories	93	90	87	89
Tobacco	160	160	139	121
Bidi	64	51	36	28
Cotton Mills	842	821	820	828
Jute Mills	249	238	220	244
Silk Mills	73	68	68	67
Footwear, other wearing apparel, etc.	40	35	35	37
Clothing	27	24	24	25
Railway workshops	155	150	150	152

Source : Pocket Book of Labour Statistics, 1972.

soda ash, etc., inadequate utilisation of installed capacity particularly in engineering industries, strained labour management relations, prolonged industrial unrest in West Bengal, etc.

6.70 Apart from the reasons given above, the growth of employment in the organised sector in general has also been limited owing to the application of capital-intensive technologies in the industrial processes on account of the indiscriminate import of sophisticated technology from advanced countries, and the operation of some of our fiscal and financial measures which were more favourable to capital-intensive investment. We have dealt with these aspects earlier in this chapter. As a cumulative result of these factors, the use of labour was discouraged and even in those processes of industrial production, where employment of more labour was possible, for example, transport, handling, packaging of materials, etc., the use of capital-intensive machinery was preferred to the employment

of more labour. Besides, some of the employers have been inclined to limit the recruitment of new workers to the minimum in view of the various obligations arising under the labour laws and there has, therefore, been a tendency to go in for more capital intensive techniques to meet the requirements of increased production.

6.71 A number of steps would need to be taken to arrest the declining trend in employment in the industrial sector generally with some of which we are dealing in this report elsewhere. To mention a few such steps by way of illustration only, immediate attention would be necessary for the removal of bottlenecks like shortage of power, shortage of raw materials like steel, inadequate transport facilities, etc. Installed capacity would have to be utilised to the maximum extent by recourse to multiple shift working. In certain industries where capacity constraints are in operation, additional capacity would need to be licensed and installed without delay. A more liberal policy in the matters like the licensing of fresh capacity, permitting the expansion of capacity of existing units particularly those engaged in the manufacture of essential materials like life saving drugs, and utilising the existing entrepreneurial and capital resources available in the country, would have to be adopted in order to obtain increased production and employment from the existing units or to accelerate the growth of industries so that the present declining trend in industrial employment may be arrested and fresh avenues of employment opened up. The creation of more capacity and increased production in industry would also have a multiplier effect by generating employment opportunities in related sectors like transport, commerce, movement of men and goods, services, etc., in the tertiary sector.

Unemployment insurance

6.72 In view of this trend towards the shrinkage of employment in some major organised industries over the years and the consequent human suffering and privation caused, the question of provision for some kind of social security to those persons who are at present employed but may be thrown out of jobs for no fault of theirs, assumes considerable importance. Some measure of social security has, no doubt, already been incorporated in the Industrial Disputes Act, 1947 since the Act provides for the payment of lay-off and retrenchment compensation to

all workers employed in any factory, mine or plantation having an average daily employment of 50 or more workers and where the work done is not of an intermittent or seasonal character. Under the Act such workers are entitled to compensation for lay-off provided they have a qualifying service of 190 days in the case of a workman employed below the ground in a mine, and 240 days in the case of other categories of workers, in the preceding twelve calendar months. Casual or badli workers are, however, not entitled to such compensation. The compensation is payable to an employee who has completed one year of continuous service, at the rate of 50 per cent of the total of the basic wages and dearness allowance that would have been payable to him had he not been laid-off. No compensation is payable to a worker for the period of lay-off which is in excess of 45 days unless there is an agreement to that effect between the worker and the employer. Such categories of workmen as are eligible to lay off compensation are also entitled to retrenchment compensation. A worker who has been in continuous service for not less than one year cannot be retrenched by an employer until one month's notice is given to him in writing indicating the reasons for retrenchment. After the period of notice has expired, the worker is required to be paid retrenchment compensation at the rate of his average pay for 15 days for every completed year of service or any part thereof in excess of six months.

6.73 While these provisions relating to lay-off and retrenchment compensation do undoubtedly afford some relief in case of enforced unemployment, their working has disclosed certain unsatisfactory features. The National Commission on Labour while considering this matter have explained* that the present arrangement by which the lay-off and retrenchment compensation was required to be borne by the employer at a time when he was really in difficulties — for whatever reasons — operated harshly on him and even more harshly on the workers who were on many occasions deprived of the benefits provided under the Act. They were of the view that the long-term solution lay in adopting a scheme of unemployment insurance for all employed persons. The Commission, therefore, suggested that over the next few years, an integrated scheme of social security should be evolved which should provide, with some marginal addition to the current rates of

*Report of the National Commission on Labour (pp. 176—178).

contribution, additional retrenchment benefits, family pension and unemployment insurance. They suggested, however, that the present system of benefits against lay-off and retrenchment should continue during the period of transition. In the context of the present economic situation when the loss of employment of any worker is likely to cause extreme hardship to him and his family on account of the cost of living which has increased considerably and which is showing a continuous tendency to rise, we consider, it is of importance that the question of providing some measure of insurance against such loss of employment should be given a high priority and the feasibility of the introduction of a scheme on the basis recommended by the National Commission on Labour be examined as a matter of urgency.

Overtime work

6.74 Another aspect of employment in the organised sector, which adversely affects the quantum of employment is the existing system of overtime working. It is somewhat paradoxical that while unemployment is so widely prevalent, the expansion of employment opportunities and the employment of more labour is impeded by the system currently prevalent of overtime work in industrial concerns, commercial establishments, etc. The system of overtime working does, it is believed, find favour both with the employers and the employees. The existing employees have a liking for this system because it tends to increase their weekly or monthly earnings with some extra hours worked while the employers are inclined favourably to this system because while it enables them to get additional work performed at some cost, it saves them from the predicament of having to keep additional labour force permanently on their rolls with its concomitant consequences. Thus one significant way in which the strength of workers is kept rather static or the need for employment of more labour is obviated is through the employment of the existing labour on overtime work. It has been stated that there is at present a considerable volume of overtime work in industrial units as well as in public offices. In a situation of labour surplus in the country when the incidence of unemployment and under-employment is so high, wide prevalence of overtime working is socially undesirable. In view of these factors, definite steps should be taken, in our view, to encourage the recruitment of new labour rather than the engagement of the existing labour on overtime work in the industrial and tertiary sectors.

Reduction in hours of work

6.75 A view is sometimes held that in view of the serious unemployment situation in the country, the number of weekly working hours should be reduced from 48 hours to 42 hours. Such a reduction, it is claimed, would not necessarily lead to increased labour cost as in the long-run it will have the effect of improving the productivity of labour and thereby the same wage would be justifiable even for the reduced number of hours. Another suggestion which has been made is that a seven-day week should be adopted so that more persons may be employed in the existing factories by staggering the weekly holidays. These suggestions have been considered by us and we feel that although from the social point of view, it may be desirable to reduce the weekly hours of work, it is not clear how far the increased productivity would actually make good the loss in production caused due to the reduction in hours, so as to avoid increased costs in our economy which is already suffering from a spiralling of costs. A seven-day week would also substantially change the existing conditions of work for labour. It would, in our view, be desirable to consider these suggestions after ascertaining the views of labour in this regard.

Employment of women

6.76 Another feature of the employment situation in the organised sector is the declining trend of employment of women in a number of industries. The data regarding the employment of women indicate a considerable decline in percentage terms between 1950 and 1970. In factories the percentage of employment of women declined from 11.25 in 1950 to 9.0 in 1970 of the total employment. Similarly, such percentage declined in mines from 20.5 in 1950 to 12.0 in 1970. While the decline in the employment of women in hazardous industries such as mining is to be welcomed on social grounds, it is important to ensure that the quantum of job opportunities available for women does not decline. It should be desirable, therefore, to provide them employment opportunities in other lines which are more suitable for them, e.g., textile industry, hosiery, etc. The declining trend in the employment of women is socially undesirable as the earnings of women go to support their families and any reduction of employment among them would cause serious hardship to the families concerned. It is, therefore, desirable to encourage the employment of women

at least upto the level at which it has been prevailing hitherto by offering some incentive to those employers who maintain the ratio of women in their labour force at a prescribed level. This could be done either by allowing some relief in tax liability, for example, by increasing the admissible expenditure by adding a certain percentage on the wages paid to women workers or conversely by increasing the tax liability by deducting a suitable amount from the admissible expenditure depending on the reduction in the number of women workers from a specified base which may be taken as the average of the previous three years.

Population planning

6.77 Besides the other long-term strategies for tackling the problem of unemployment, a very important issue for the long-term, in this connection, is the planning of population; for the population explosion is currently pouring an increasing stream of new entrants into the labour force each year, which the economy is unable to absorb, and in the future years it will be increasingly difficult to cope with this varitable deluge of human population. "No other phenomenon", stated the Pearson Commission in its report,* "casts a darker shadow over the prospects for international development than the staggering growth of population. It is clear that there can be no serious social and economic planning unless the ominous implications of uncontrolled population growth are understood and acted upon."

6.78 A view is sometimes expressed in relation to the problem of population planning that the persons who will join the labour force during the next 15 years have already been born and, therefore, a family planning programme or any measures for controlling the growth of population that may be taken up or intensified now would not have any impact on the size of the labour force or on the employment situation until after a lapse of about 15 years. In this context, there are two important points which need to be borne in mind. First, the unemployment problem is not a problem of today only. Any programme of manpower planning and employment should have in view a longer perspective and to that extent the adequate implementation, at present, of measures of population planning and family planning is relevant to the

consideration of a long-term employment strategy. The second and perhaps a more important point is, in view of the present circumstances, the indubitable fact that although the children born at present would not join the labour force until after about 15 years, yet they would be brought up, fed, clothed and provided with medical care, educational and other facilities which would involve larger private consumption as well as more public expenditure on the provision of basic social services, thereby affecting the proportion of savings available for investment for future economic growth. An effective programme of family planning which reduces the number of births would result almost immediately in checking the increase in private consumption as well as in public expenditure on social services, and the resources thus saved would be available for increased productive investment. In this connection, a study† carried out sometime back on the basis of the conditions obtaining in India during 1960-61 and in terms of the prices of that year, computed the cost of bringing up a child till the age of 18 years at Rs. 5,572 which in 1960-61 was equivalent to about seven times the average gross income of Rs. 778 per year per worker at that time.‡ This would indicate that the rearing up of a child so as to make him an earning member of the society requires investment on the part of the community of an amount equal to seven times the gross annual income of a worker. Similar results have been obtained in a few studies carried out in other countries.

6.79 As indicated in Chapter IV of the Report, the size of the labour force which is estimated to have been 214 million in 1971 is expected to increase to 242 million and 274 million in 1976 and 1981 respectively. The corresponding figures of the total population in 1971, 1976 and 1981 would be 548 million, 605 million and 657 million respectively. These projections@ are based on the assumption that during the five-year period from 1971-72, the average birth rate would be 35.5 per thousand of population with the average death rate of 15.0 per thousand, while during the succeeding five year period from 1976-77, the average birth rate would come down to 29.4 and the average death rate to 1.30. However, if the assumptions regarding the reduction in birth rate do not materialise, the size

*The report entitled "Partners in Development" of the Pearson Commission appointed by the World Bank.

†"Cost of Bringing up a Child", National Institute of Health Administration and Education Bulletin 1970, New Delhi, India.

‡ 'Worker' in this context means an economically active person as defined in the concepts and definitions adopted in the 1961 Census.

@ Revised Series of Population Projection for official use issued by the Registrar General (India), 1971.

of the population will be considerably greater with the consequence of a continued increase in the labour force.

6.80 In 1960-61, the country's estimated net national product at factor cost was Rs. 13,224 crores,* and during the year 1969-70 on the basis of constant prices for the year 1960-61, it was estimated at Rs. 17,955 crores, indicating an increase of 35.7 per cent on the 1960-61 figure, i.e., 3.47 per cent (compound) per annum. During the same period, the population is estimated to have increased from 439 millions to about 537 millions, i.e., by 22.3 per cent with the result that the increase in per capita income over this period was only 10.95 per cent, i.e., about 1.15 per cent (compound) per annum. In this context the following extract from a World Bank Paper** will be relevant:

"In the mid-1960's, about two-third's of total annual investment in a sample of 22 developing countries was required to maintain per capita income at a constant level, leaving only about a third to raise living standards. The corresponding figures for a representative sample of 19 developed countries were one quarter and three quarters."

In India also, as is evident from the above figures, the same share, i.e., about two-thirds of the increase in the national income has gone to maintain the per capita national income at the 1960-61 level while only the remaining one-third has been available for raising the living standards as well as investment for future economic growth.

6.81 The growth of employment is to a large extent dependent on the rate of growth of production, assuming that the prevalent pattern of industry and technology would continue without much variation. The rate at which production can be increased depends largely upon the capacity of the country to effect a larger saving out of the total production for being utilised for investment rather than for current consumption. A growing population with the proportion of dependent children becoming constantly higher will find it increasingly difficult to

effect savings, because a major part of the increased production will be consumed in merely maintaining the existing low levels of consumption. Therefore, in order to secure a reasonably high rate of economic growth, it is necessary to restrict the growth of population effectively, and for this purpose, the adoption of a well-concerted and positive programme of population planning is very essential.

6.82 The birth rate in the country has remained virtually static since the 1940's. It is estimated that the average birth rate during the 1940's was 39.4 per thousand while during the 1950's it increased to 41.7 per thousand. Subsequently, during the 1960's it has shown a slight decrease and is estimated to have reached the level of 37.2 per thousand in 1971.† The death rate has, on the other hand, been continuously declining. The reasons for the rapid fall in death rate are well-known. The rapid strides made in the development of medical sciences, the discovery of life-saving drugs like antibiotics, the practical elimination of deadly epidemics like malaria, plague and cholera, the steady expansion of health and medical facilities and improved hygienic conditions, better means of communication and greater social awareness leading to the adoption of more effective and timely measures to relieve distress during times of famine, etc. — all these and other measures have brought about a substantial reduction in both morbidity and mortality in India. Our total outlay on health programmes in the first two plans was about Rs. 350 crores. The increased outlay on the provision of medical facilities and health services has, no doubt, contributed to a steady decline in the death rate. The modern methods of improving health conditions which result in a decline in the death rate are comparatively less difficult to adopt, while the measures of family planning depend for their success to a greater extent on the personal choice and volition of individuals, the prevailing socio-economic environment and the social and religious prejudices and predilections which are more difficult to overcome. The adoption of various social and economic programmes would have an impact on the current rate of growth

* A crore is equal to ten million,

** Population Planning-Sector Working Paper, World Bank, March, 1972, page 5.

† Department of Family Planning, Ministry of Health and Family Planning—Monthly Statement of the Progress of Family Planning Programme in India (unpublished), New Delhi—November, 1972, p. 19.

of population in diverse ways. The provision of better medical and health services would bring about improvement in the general health conditions and a corresponding reduction in the death rate. The spread of education among women and their higher participation in economic activities would have the effect of the postponement of marriage with consequent reduction in births; besides, these would also make such educated women psychologically more responsive to the norms of a small family and the ideas of family planning. Again, better nutrition and improved maternity and child health services would reduce the levels of maternal and child death rates. The net effect of the above factors on the rate of growth of population in any particular situation would depend on whether the one or the other of the factors has the predominating influence.

6.83 The average levels of the birth rate during 1971-76 and 1976-81 which have been assumed for the purpose of the population projections mentioned in para 6.79 above, have been worked out on the basis that the general fertility rate would decline during the period 1971-76 by about 10 per cent and that it would decline further by 20 per cent of the level reached in 1976 during the subsequent five years 1976-81. It is estimated that the decline in the general fertility rate as well as the birth rate as indicated here would be realised only if 20 per cent of all the couples in the reproductive age groups adopt family planning methods by 1975-76 and 40 per cent of such couples by 1980-81.* These assumptions, however, appear to be optimistic, and sustained and vigorous efforts would have to be made if they are to be realised.

6.84 In recognition of the adverse implications of a rapid growth of population in respect of the economic development of the country and the well-being of its people, the Government of India has accorded a high priority to family planning programmes. The actual expenditure** on the programme increased from Rs. 24.9 crores during the Third Plan period to Rs. 70.4 crores during the subsequent three annual plans while the provision for the Fourth Plan stood at Rs. 315 crores. During the first three years of Fourth

Plan, the actual expenditure was of the order of Rs. 145.0 crores. In terms of investment and establishment of a suitable organisation, considerable progress has been made. A net work of family planning centres as a part of the general health services of the country has been organised. In terms of the proportion of the couples in the reproductive age-group protected against unwanted pregnancy, the programme has so far (November, 1972) been able to cover about 13 per cent of such couples in the country as a whole as against the targeted coverage of 20 per cent by 1975-76. The performance, however, varies greatly from state to state. The number of births prevented during the years 1961 to 1971-72† is estimated at ten millions, while as a result of the cumulative effect of the various measures adopted, the national birth rate may have, it is believed, declined from an estimated figure of 41.7 during the 1950's to about 37.1 1971-72.‡

6.85 It would appear that the organization for implementing the family planning programme has made considerable headway in the recent years in a number of directions. Since about one-third of the country's population is concentrated in 51 districts, a programme of intensive family planning is, under a government decision, to be carried out in these districts in a phased manner. The programme envisages the building up of a complete health and family planning organisation at various levels, placing in position the normal complement of staff and other inputs in the initial stage and later providing additional facilities including measures of mass education and a number of additional mobile units for providing the requisite services. The scheme is, in the first instance, being implemented in sixteen districts and nine of them are reported to have shown better performance in sterilisation in 1970-71 as compared to the previous years, while the number of acceptors also increased in ten of these sixteen districts. This intensive programme was continued in these districts during 1971-72 and 1972-73 and is currently under evaluation before it can be further extended to other districts.

* "What price Population Growth" by J. N. Sinha—Studies in Demography, published by George Allen and Unwin Ltd., London, 1970, pp. 434-436.

** "Progress of Family Planning Programme in India" issued by the Ministry of Health & Family Planning, Department of Family Planning, Government of India, March, 1972.

† The basis of compiling these figures was changed from calendar year to financial year w.e.f. 1st April, 1967.

‡ This compares with the figure of 37.2 per thousand for the calendar year 1971 as given in para 6.82 above.

6.86 As indicated earlier, whereas the birth rate has shown only a slight fall over the years, the death rate in the country has been decreasing steadily. The latter would, according to an expert opinion,* perhaps register a further decline to an average of 13 per thousand during the quinquennium 1976-81. It is likely that given adequate medical facilities and improvement in the general health conditions in the country, the death rate in the subsequent period might go down further to 10 or even less. Lest this be considered to be based on facile optimism, it may be mentioned that a death rate as low as 9 per thousand has been attained in some advanced countries and even in neighbouring Sri Lanka the overall death rate declined to 8 per thousand in 1969.** Even on the assumption of a death rate of about 11 per thousand and a birth rate between 26 and 27 per thousand in 1980-81, the growth rate of population would be 1.5 to 1.6 per cent per annum. This will, in other words, mean an annual addition of the order of 10 million to the population of the country taking its estimated population as 657 million for the year 1980-81. If the general fertility rate could decline further during the period 1981-86 and 1986-91 by 20 per cent of level reached at the beginning of each quinquennium, the population would approximately be of the order of 700 million at the close of 1985-86 and 740 million at the close of 1990-91, indicating an average annual increase of about 8 million. As is well-known, the national target of family planning provides, as mentioned in the Fourth Plan document, for the reduction in birth rate to 25 per thousand by 1980-81. As a matter of fact we should think in terms of bringing down this rate to a still lower level so that around the end of the 1980's, the size of the population becomes stabilised or, in other words, we attain a zero rate of growth of population. This would involve a couple only replacing itself by having two children on an average.

Taking into consideration the somewhat limited measure of success achieved so far and the targets laid down for attainment, it is essential that vigorous and concerted efforts for the intensification and extension of the family planning programmes be made so that the national targets can be achieved. It will be readily recognised that in a situation like the present, a society which has learnt to control mortality, need to control the birth rate also. There should, therefore, be an all-

round and even better recognition at the national level of the need for adoption of a positive population policy to bring down the birth rate. In this connection, it may be mentioned that our family planning programme has recently laid emphasis mainly on the measure which aims at the avoidance of conception by various methods, like surgical, mechanical, chemical, etc. A further necessary measure for this purpose would be to provide even for the termination of pregnancy after the measures for conception control may have failed due to inadvertence or the lack of completely effective devices.

6.87 A relevant point in connection with the termination of pregnancy is the recent law relating to the liberalisation of induced abortions which has been in force since April, 1972. A sufficiently long period has not yet elapsed to enable an assessment being made of its working and its effect on the current birth rate. The consequences which need to be examined in respect of such abortions are of two types, namely, the long-range health effects and the long-range impact on population control. We feel that the experience of Japan in bringing about almost spectacular results in population control could be usefully studied by us. We have gone into the provisions of our enactment on induced abortions in this regard. We feel that the provisions regarding the circumstances in which such abortions could be permissible should be further liberalised and they need not be limited only to the cases of grave injury to the physical and mental health of the pregnant woman.

6.88 But more important than this is the extension of medical facilities, clinics and health centres, etc., in the rural areas so that the rural population might have these facilities and other inputs within their easy reach. The programmes of family planning have not been adequately effective in many rural areas and have not even reached places in the interior, largely because of the practical difficulties arising from inadequate facilities like hospitals, health centres, medical and para-medical staff, etc. Therefore, one of the essential practical steps for the implementation of these programmes in the rural areas would be the provision of these essential facilities and inputs.

6.89 For the success of the family planning programme besides a well-knit and effective administrative organisation, there must

* Report on the population projections worked out under the guidance of the Expert Committee set up by the Planning Commission under the chairmanship of the Registrar General, India—1968.

** Matching Employment Opportunities and Expectations—A Programme of Action for Ceylon—I.L.O., Geneva, 1971—P. 10.

be emphasis on basic research in reproductive biology, demography, communication and methods of evaluation. It would also be necessary to strengthen the data base in all these subjects. Further research would be needed for developing more efficacious contraceptive devices, etc. No doubt, commendable efforts have been made for evolving suitable, simple and cheap contraceptives. Still greater efforts are called for in perfecting the present techniques through more intensive research.

6.90 An attack on this problem could take various forms besides the conventional methods of contraception and legalised abortion, e.g., postponement of the age of marriage, motivation of young men and women for longer abstention from marriage and the creation of a proper social atmosphere for this purpose, promotion of female education and literacy, measures for increased participation of women in economic activities, etc. It is generally believed that postponement of marriage by three to five years would have the effect of reducing fertility to a considerable extent. In our social conditions, the minimum age of marriage could easily be raised to 21 for boys and 18 for girls from the existing levels of 18 for boys and 15 for girls. While the spread of education, particularly among women, would no doubt have beneficial effects, a sustained effort at dissemination of information and instruction about population matters, proper motivation, provision of medical services etc., would be required for a greater measure of success of the programme.

6.91 We have made recommendations elsewhere regarding the extension of adult literacy and primary education. We would like to emphasise here that these two measures can have a large impact on our family planning programme provided their coverage is extended to a sizeable percentage of the population. It is recognised that education has an important role to play in helping to change the current social milieu and the public mores. Educational institutions could perform a great service to the community in the current decade by dedicating themselves to imparting training in population planning and creating a suitable atmosphere for it, as the success of a population planning programme would eventually improve the quality and diversity of life of the people. We understand that some states have taken steps to introduce education on population in their school curricula. Efforts are, however, necessary for the adoption of such measures by other states also. Apart from the education on population imparted in the schools, arrangements are also needed to impart such training to those young men and women who have not been to school or who have since left school. Further, education on population should find a prominent place in adult literacy programmes. We are of the view that these measures would constitute some of the effective ways of attack on this otherwise intractable problem in order to ensure the proper acceptance and speedy adoption of family planning by the community at large.

CHAPTER VII

AGRICULTURE AND ALLIED OCCUPATIONS

7.1 An overwhelmingly large part of our labour force, that is, about 72 per cent, finds employment in the agricultural sector; the projections of the country's labour force also show that during the present decade there will be a major increase in the labour force engaged in this sector (about 47.70 million between 1970 and 1980). It is clear that the agricultural sector will continue to play a preponderant role in providing gainful occupation to the labour force. According to the International Labour Organisation* even with the most optimistic assumptions concerning future rates of industrialisation and economic growth, the transfer from agricultural to non-agricultural occupations in the developing countries will proceed relatively slowly and the bulk of the labour force will, for years to come, remain engaged in agriculture.

7.2 An idea of the characteristics of the rural labour force has been given in their report by our Working Group on Agriculture. In the first place, the number of persons who are totally unemployed and are looking for work throughout the year is not very large. This feature of the situation is understandable in view of the fact that a significant proportion of the labour force is self-employed, working on their own household farms and enterprises, or for some part of the time for wages on other people's farms and enterprises. The availability of supplementary employment under various public works programmes also diminishes, to some extent, the likelihood of persons looking out for work throughout the year. The second characteristic, which is also very widely prevalent is the existence of seasonal unemployment. In view of the intermittent periods of farm operations, seasonal unemployment is common both among the self-employed and the wage-earners. The third characteristic of the labour force is the widespread occurrence of invisible or disguised unemployment. This characteristic is predominant among small farmers; though they are employed on their farms, their productivity is less than what

can provide a reasonable level of subsistence. We have also to take into account the varying conditions of employment of the rural labour force in different parts of the country. In most regions, agriculture is a household activity; in many areas women also work on the farms. Many persons in the rural labour force depend upon agriculture as a part-time activity, while at other times they are employed in subsidiary occupations, like forest work, animal husbandry, etc. Any programme for employment in the rural sector would therefore, have to take into account the different characteristics of the labour force.

Assessment of rural unemployment

7.3 Our Working Group on Agriculture has examined the estimates of unemployment in rural areas made by different agencies or authorities in the country. In this connection, we would like to mention the estimate of the number of unemployed persons given by the 1961 Census. The number of unemployed persons was enumerated by the 1961 Census as 1.41 million (1.29 million males and 0.12 million females) of whom 0.66 million persons (0.54 million males and 0.06 million females) were in the rural areas. Our Working Group did not accept these figures as a correct measure of unemployment in view of the facts that a very wide reference period of a working season had been adopted for the enumeration of seasonal workers and that the term 'seeking work' was not defined. They felt that it was not unlikely that the number of the unemployed so enumerated was an underestimate. We are inclined to agree with this view of the Working Group especially as the National Sample Survey (NSS) had in successive rounds found considerable unemployment which was of a larger magnitude than that enumerated by the 1961 Census. For example, in the 16th Round of the NSS which was undertaken between July 1960 and June 1961, the number of unemployed persons was estimated at 6.4 million, of whom 5.8 million were in the rural labour force.

* *The World Employment Programme*, I.L.O. Office, Geneva, 1969, page 33.

7.4 In its report, our Working Group has attempted to work out the estimates of unemployment and under-employment in the rural areas at the beginning of the Fourth Five Year Plan by applying to the estimated population, the average participation rates and the average ratios of unemployed persons to the labour force as estimated by the NSS in the 14th to the 17th Rounds and the 19th Round, for the rural areas. The labour force requiring employment was assumed by the Working Group to belong to three categories: those who were totally unemployed, those who were under-employed and were seeking additional work, and those who were under-employed involuntarily and though not seeking work, would presumably have taken up additional work if it was available. By applying the average rates to the estimated population, the Group estimated the number of unemployed in the rural areas at the beginning of the Fourth Five Year Plan at 7.82 million of whom 3.75 million were males and 4.07 million were females. Although these figures appear to be generally acceptable, we feel that not all the women who reported themselves as unemployed and seeking work might have been available for full-time employment. In view, however, of the non-availability of any details in the NSS data of the extent to which or the period for which work was sought by the female labour force, it would not be possible to adjust these figures.

7.5 The Working Group worked out three estimates of the number of persons for whom employment had to be found in 1969 among the rural unemployed and under-employed. These estimates were:

- (a) 7.82 million persons who were estimated to be totally unemployed and seeking work;
- (b) 9.12 million persons including 7.82 million persons as at (a) plus the full-time equivalent of the extra hours of work required for those under-employed who were seeking additional work so as to make them fully employed; and
- (c) 22.52 million persons, which would include the 9.12 million persons indicated at (b) plus 13.40 million persons as the full-time equivalent of extra work needed for the under-employed males, on the assumption that work would have to be provided for all the male labour force who were working for less than 42 hours per week so as to make them fully

employed, though they were not actively seeking additional work.

While working out the latter two estimates, the Working Group has taken into account only those women who had declared themselves as unemployed and seeking work, and those who had reported that they were available for additional work, for computing the number of the female labour force which would require full-time work for 42 hours in a week. On the other hand, they have assumed that all the males in the labour force who were working for less than 42 hours in a week would require additional employment so as to become fully employed. On the basis of these assumptions, the Working Group has taken the view that the outstanding rural unemployment in 1969 could be estimated to range between 9.12 and 22.52 million persons. Extracts from the Working Group's report on the manner of estimation of these figures are given at Annexure (1).

We would like to make it clear, however, that the above estimates of the extent of full-time employment that would be required to make the unemployed and under-employed in the rural areas fully employed are as those given by the Working Group on Agriculture. Our own views regarding the dimensions of unemployment have been given in Chapter IV of this Report.

7.6 The Working Group also attempted to assess the likely additional employment that may be generated during the Fourth Five Year Plan from the investment proposed on the main programmes of development in the rural areas during 1969-74. For this purpose, they took into account the outlays on programmes under 'Agriculture and Allied Sectors', 'Major and Medium Irrigation' 'Flood Control' and 'Rural Roads'. These programmes would, according to the Group, be able to generate employment in three different ways during the Plan period. These would be: (a) in the construction phase, i.e., when the programme is being actually implemented; (b) in the maintenance or continuing phase, i.e., for the maintenance and operation of the assets and institutions created; and (c) in the production phase, i.e., the additional employment that would be available in agriculture on the completion of the development programmes of irrigation, land reclamation, flood control, soil conservation, agricultural extension and research.

7.7 The total employment potential in the construction, continuing and production phases by the last year of the Fourth Plan

was estimated by the Working Group at 16.42 million man-year units.* The increased investment would, in its wake, give rise to the step-up of transport, trade, etc., in the tertiary sector in the rural areas. These activities are likely to provide about 10 per cent more employment. According to the Working Group, even on a most optimistic estimate of the additional employment generation in the agricultural sector, it would not exceed 18 million man-year units in the last year of the Fourth Plan (Annexure (2)).

The employment generation estimated for the rural areas under the programmes of agriculture and allied sectors in the Fourth Plan would not, however, we feel give the entire picture. As a multiplier effect, some other activities like small scale industries, social services, primary education, etc., would also develop, thereby providing scope for additional employment.

7.8 Using the same methodology as indicated in para 7.4 above, the Working Group endeavoured to estimate the new entrants to the labour force in the rural areas for whom full-time employment would need to be found during the Fourth and Fifth Plan periods. These estimates and projections reveal that full-time employment would need to be found for a further 16.78 million persons during the Fourth Plan period and 17.94 million persons during the Fifth Plan period. (Annexure (3)).

7.9 According to the Working Group, the provision of employment of about 18 million man-year units during the Fourth Plan period would leave a sizeable backlog of unemployment at the beginning of the Fifth Plan. The total number of the unemployed man-year units in 1974 would, in their view, vary between 7.90 million and 21.30 million. In addition, the increase of approximately 17.94 million persons in the labour force during the Fifth Plan period would require full-time employment. Thus the programmes of development in the rural areas during the Fifth Plan period would have to aim at providing full-time work by 1978-79 for a minimum of 25.84 million persons or a maximum of 39.24 million persons.

7.10 These estimates would indicate the overall size of the problem of rural unemployment which needs to be tackled during the Fifth Plan period. The problem would, however, differ from state to state depending upon the levels of agricultural development, the

levels of technology, the availability of various inputs, the availability of rural jobs, etc. The behavioural pattern of all those seeking work would also not be the same. A proportion of the small cultivators may be unwilling to work outside their farms, while a segment of the rural labour force would be seeking employment for a part of the year only. Some persons, specially women, might like to find part-time employment within their own village. Still others would offer themselves for full-time employment, while a certain percentage may be prepared to go out of their village. If full-time employment could be found for a part of the labour force, this would relieve the problem of under-employment of some of the others in the rural areas. With the adoption of improved agricultural practices and the new techniques, some would find additional employment in agriculture itself. For the bulk, however, employment would need to be found under various related programmes in the field of agriculture, its allied and subsidiary occupations, rural works programmes, etc., in the rural areas.

Development of rural areas in the Fifth Plan

7.11 The Working Group has stressed that the approach to the programmes of development for the rural areas must be employment oriented for the next Plan period. We agree broadly with this view. An examination of the employment potential of the rural development programmes in the Fourth Plan has shown that the programmes of irrigation (both major and minor), soil conservation, land reclamation and rural roads, would be the most labour-intensive programmes and the most productive sources of employment. These programmes would bring in their wake larger productive capacity and employment in agriculture itself and open up avenues of further growth and development in the rural areas. According to our Working Group, a massive programme of rural works encompassing all these items would be the only answer to the problems of unemployment and under-employment in the rural areas.

Minor irrigation

7.12 Among the programmes mentioned above, irrigation is the most essential requirement for agricultural development as it provides assurance of adequate water to those areas where the rainfall is low and uncertain, and also provides water supply throughout the year in other areas for the intensification

* One man-year unit was taken comprising 273 working days of eight hours each.

of agricultural operations. With the availability of adequate and controlled water supply, it becomes possible for farmers to grow more than one crop in a year and thereby to augment their incomes. In this way small and marginal farmers also can become viable. The minor irrigation programmes which are quick yielding in their benefits and generate the largest amount of employment during the construction as well as in the maintenance phases would, therefore, be an important constituent of rural development programmes. Besides, they have an impact on the cropping pattern in the production phase also.

The provision of irrigation in agricultural operations enhances employment in three ways. In the first place it increases the intensity of labour for most of the crops. Analysing the labour days per hectare under different cropping conditions, the Working Group has found that in the case of rice, the labour days per hectare rose with the introduction of irrigation from an average of 94.57 to 116.32 that is, a rise of 23 per cent. Foodgrains occupy three-fourths of the gross cropped and irrigated area in the country. The labour days of employment for every irrigated hectare under foodgrains would increase on an average by 80 per cent (from 55.06 to 100.08 man-days per hectare).

7.13 Secondly, the provision of irrigation would assist in bringing about changes in the cropping pattern in the regions concerned. Thus, for example, many farmers would change over from the cultivation of low yielding varieties of millets to the high yielding and better priced cereals like rice and wheat. This change would increase the requirement of labour employed per hectare on the farms; while the labour days per hectare for irrigated jowar would be on an average around 63, those under rice would be 116 and under wheat 104. With the introduction of irrigation, the switch from the cultivation of jowar to that of rice in the kharif season, or to that of wheat in the rabi season, would enhance employment by 84 and 65 per cent, respectively.

7.14 Lastly with irrigation, the farmers can intensify their cultural practices through multiple cropping. This would entail the cultivation of early maturing high yielding varieties of crops, the maintenance of soil fertility, the judicious use of fertilisers, tillage

practices, manures, water, etc. All these practices would be labour-intensive and would, at the same time, contribute to greater production and larger incomes. Research experiments conducted by the Indian Agricultural Research Institute (IARI) indicate that with the intensity of cropping rising from 100 to 400 per cent, the employment requirements would rise from 85 to 432 man-days per hectare and the production in terms of foodgrains would increase from 5 to 14 tonnes per hectare*.

7.15 The construction works under minor irrigation have several advantages. These works are usually located in and around farm sites; besides they can be taken up during the slack season thereby providing supplementary employment to the under-employed in the rural areas. Further the development of ground-water resources through the installation of deep and shallow tubewells, dugwells, Persian wheels, etc., takes comparatively less time, involves less conveyance losses and results in quicker production benefits. Also the cost of construction of these works is generally lower than that of major and medium irrigation works. Again, these programmes attract substantial investment by farmers themselves from their own resources or through loans from institutional sources.

7.16 The scope for the expansion of irrigation facilities in a number of States is quite large. As against a likely gross irrigated area of 46 million hectares by 1973-74, the ultimate utilisable surface and ground-water resources in the country are reported to be capable of irrigating an area of over 100 million hectares (gross). Of this area, more than half would come under major and medium irrigation projects and about 46 million hectares under minor irrigation works. By the end of the Fourth Plan, minor irrigation works would have, it is expected, provided water to an area of about 26 million hectares. Thus a substantial area of approximately 20 million hectares utilising both ground and surface water resources would still remain to be covered by minor irrigation projects. Our Working Group has suggested that minor irrigation works could be taken up over an area of 15 million hectares during the Fifth Plan period and that this programme would provide about 17 million man-year units of employment in the construction phase alone. We would agree with the observation made by the Group. We had suggest-

* *Recent Research in Multiple Cropping*, Indian Agricultural Research Institute, New Delhi, 1972 pages 115-121.

ed in our Interim Report* also that an additional area of half a million hectares could be taken up under minor irrigation programmes during the two years 1972-73 and 1973-74.

7.17 The potential for the expansion of minor irrigation works during the Fifth Plan period would not, however, be uniform in all the States. It would depend on the availability of ground-water as well as on the amount and distribution of rainfall in different regions. We understand that the potential for such development is the largest in Uttar Pradesh followed by Andhra Pradesh, Bihar, Madhya Pradesh, Mysore, Orissa and West Bengal, while the scope for it is comparatively less in States like Jammu and Kashmir, Haryana, Tamil Nadu, Rajasthan and Kerala.

7.18 The potential for the expansion of minor irrigation works is, unfortunately, the least in those States where the need for irrigation is the greatest. The Working Group has estimated the likely gross cropped area in the different States by 1973-74. As compared to that area, the scope for further expansion of irrigated area through minor irrigation works is less than 10 per cent in the States of Rajasthan (3.41%), Maharashtra (3.74%), Haryana (6.36%), Tamil Nadu (6.62%), Gujarat (6.95%) and Madhya Pradesh (7.31%). Major and medium irrigation works may, however, provide additional water to some areas in these States. But on the basis of the data available at present, the ultimate availability of water from all sources will remain less than that needed for 40 per cent of the gross cropped area in the States of Maharashtra (22.67%), Gujarat (36.18%), Mysore (37.37%), Rajasthan (37.57%) and Madhya Pradesh (39.50%). There is, therefore, need for undertaking an intensive and extensive survey of the ground-water resources, especially in the arid and drought-prone regions of the country. There is also the problem of the fall in the level of underground water that has appeared in some areas as a result of the installation, on a large scale and in quick succession, of tubewells and dugwells. A few States have already taken some measures to prevent the construction of new wells without sufficient technical data. (Annexure (4))

7.19 In view of the importance of irrigation in all programmes of agricultural development, investigations are necessary to determine the location and size of ground-water resources and the technical and economic feasibility of their utilisation through

wells and tubewells. Such investigations and assessment of ground-water resources, as well as the exploration of geological conditions for determining the depth at which water occurs and other hydrological parameters, have been undertaken in some areas of the country; but it is necessary to extend these to other areas particularly those which are more lacking in surface water resources. These investigations would facilitate an assessment of the limits of utilisation of the ground-water resources so as to obviate their undue depletion due to uncontrolled withdrawal by large numbers of wells and tubewells. We, therefore, recommend that effective steps be taken to extend the activities of ground-water surveys to all those areas of the country which are not, at present, covered by the surveys undertaken by the Central Ground-water Board and by the State Ground-water Boards wherever the latter exist. The existing organisations at State level for ground-water surveys would need to be adequately strengthened and equipped so as to undertake and complete such surveys within a reasonable period, and in those States where organisations for this purpose have not already been set up, the need for setting them up with adequate staff and equipment should be examined on an urgency basis. We feel that an expeditious completion of such surveys is essential for the proper planning and early execution of the programmes of minor irrigation which would bring quick results and provide large scale employment in the rural areas.

7.20 In view of the limited availability of water in extensive areas of the country, care would need to be taken to ensure the optimum utilisation of the water resources and all possible avoidance of wastage. This would entail adoption of proper soil and water management practices. Such practices include, inter alia, land shaping and land levelling, crop planning based on soil characteristics, regulated water supply to plants only at the appropriate times, the reduction of losses in conveyance and application of water, the drainage of excess water from the fields, etc. The appropriate soil and water management of irrigated land would require a number of construction activities, the exact nature of which would differ from region to region. In some areas as for instance in Orissa, the programmes would involve the construction of field channels while in the Deccan plateau comprising parts of Andhra Pradesh, Maharashtra, Mysore and Tamil Nadu, the requirements may be for desilting

* *Interim Report on Short-term Measures for Employment*, Committee on Unemployment, New Delhi, February, 1972.

and renovating of irrigation tanks. The renovation of tanks would, in addition to improving their water holding capacity, help in maintaining the level of the water table and the availability of water in nearby irrigation wells. In the coastal areas, the land reclamation programmes may entail the construction of embankments to keep out sea water. In parts of Assam, Bihar, Orissa and West Bengal, which are frequently afflicted by floods causing damage to crops, there would be need to undertake flood control measures, like the strengthening of embankments, the diversion of rivers and the construction of drainage channels. However much irrigation may spread, there would still remain large areas in which an increase in crop yields would be possible only through contour bunding, soil conservation, land levelling and other measures. The catchment areas of rivers would require afforestation for prolonging the life of reservoirs, moderating floods and checking the erosion of land, besides augmenting the supply of fuel and timber. Some areas, such as those in Punjab and Haryana, where the rise in the sub-soil water level has rendered extensive lands unfit for cultivation through salinity and alkalinity of the soil, would need special measures of reclamation. No estimates of the expenditure that would need to be incurred for such works are however available to us. It may be necessary to undertake detailed studies of the cost of land shaping and of construction of field channels and drainage works which will be needed for making the lands suitable for cultivation once irrigation is available. We consider that adequate provisions should be made for these items in all projects of minor irrigation undertaken by Government agencies.

Soil conservation and land reclamation

7.21 Another very important programme having a large employment potential during the construction phase is, in the view of the Working Group, that of soil conservation and land reclamation. These measures involve at the initial stages labour-intensive engineering and construction works on an extensive scale, and they are also productive in nature. Such programmes can help generate employment in the construction phase, at the rate of 400 man-days per hectare of unskilled labour and 0.04 man-days of skilled labour. According

to the Report of the Waste Land Survey Committee (the Uppal Committee) appointed in 1959, about 135 million hectares of land in the country required treatment for soil conservation. We understand that of this area, only about 15 million hectares have been treated up to now. There is, therefore, scope for undertaking soil conservation measures over a vast area of 120 million hectares. Further, out of the waste lands available in the country, nearly 20 million hectares can be reclaimed, of which one-half could be used for agriculture and the other half could provide grass lands and village fuel lots. If soil conservation works were taken up over an area of 15 million hectares and land reclamation works over 5 million hectares during the Fifth Plan period, they would help generate employment of about 32.51 million man-year units in the construction phase. We recommend that a programme of soil conservation and land reclamation on the lines indicated here may be undertaken during the Fifth Plan.

Multiple cropping

7.22 While the programmes of minor irrigation, soil conservation and land reclamation provide employment in the construction phase, they also provide opportunities for additional employment in the production phase by the intensification of agricultural operations. With the availability of short-term high yielding varieties of crops, irrigation, fertilisers, herbicides, plant protection measures, etc., it becomes a feasible proposition to introduce multiple cropping and thereby provide near full-time employment to the members of the households cultivating their own farms and also give more employment to other farm labourers. The main advantage of multiple cropping over the traditional practices in agriculture would lie in securing greater production from the same piece of land. Such intensive agriculture would require the maintenance of soil fertility at a high level by the judicious use of water, fertilisers, tillage practices, etc. All these practices would lead to an increase in the intensity of agricultural operations, thereby generating greater employment, rise in agricultural production and enlarged incomes from the land. Some recent research studies would indicate that there is great scope for the expansion of multiple cropping in the next few years*.

*See

- (a) *Technical Report of the Division of Agricultural Economics and Statistics*, for the year 1970-71 by J. S. Garg, Professor and Head, U. P. Institute of Agricultural Sciences, Kanpur, pages 42-45.
- (b) *Recent Research in Multiple Cropping*, Indian Agricultural Research Institute, New Delhi, 1972, pages 115-121.

7.23 The scope for the expansion of multiple cropping would, however, differ from region to region and area to area within the country. In areas which have assured irrigation water, there is no doubt considerable scope for the introduction of multiple cropping. However, the figures about labour employment in relation to the different types of multiple cropping which have so far been worked out at the experimental stations in different parts of the country are largely for particular patterns of multiple cropping. For example, the experiments conducted at the Indian Agricultural Research Institute in Delhi do not include rice in their rotations as it is not an important crop in and around Delhi*. On the other hand, the gross cropped area under rice constitutes over one-fifth of the total cropped area in the country. Even in the major wheat growing States of Punjab and Haryana, rice is increasingly gaining importance as a kharif crop. We, therefore, feel that there is need for intensifying research in a number of alternative patterns of multiple cropping suited to the local conditions in different regions. It would also be necessary to try on a sufficient scale in the cultivators' fields the results of experiments being undertaken on crop rotations in the research institutions. It may be noted here that while the cultivation of crops has been intensified in some areas in different States, there has not been an appreciable increase in the multiple cropped area over the country as a whole. A programme of bringing an area of 9 million additional hectares under multiple cropping could be undertaken in the next five years, though the bulk of this area would be covered by double cropping only. The programme is likely to provide additional employment of about 4.03 million man-year units.

Problems of mechanisation

7.24 In areas where irrigation facilities have led to more than one crop being grown in a year, the mechanisation of some of the agricultural operations is being resorted to by an increasing number of farmers. This mechanisation could take various forms; from the use of diesel and electricity for pumpsets and tubewells, small mechanised appliances for improving the agronomic practices like seed-drills, fertiliser-planters, etc., to the more sophisticated implements like tractors, threshers, reapers, harvester-combines,

etc. The introduction of electric and diesel pumps, tubewells and seed-drills as also of tractors involves, by and large, the displacement of bullock power and not of human labour. With these mechanised appliances, the farmers can step up the intensity of cropping on their farms and engage human labour for longer periods. On the other hand the more sophisticated items of machinery such as threshers, reapers and harvester-combines are largely labour displacing.

7.25 The impact of the introduction of tractors on employment in agriculture is not very clear or easy to assess. Some farmers have resorted to the use of tractors in order to complete in time some agricultural operations like ploughing, sowing, harvesting, threshing, etc. There are certain areas or certain agricultural situations where the tractor is almost the only feasible means of conducting agricultural operations. The findings of studies undertaken by different organisations on the impact of tractors on displacement of human labour run both ways. In their study in Punjab and Maharashtra in 1971, Billings and Singh examined the impact of different mechanised appliances on the demand for labour in lands sown with high yielding varieties without mechanisation vis-a-vis those sown with conventional varieties, with the introduction of pumpsets, power threshers, cane crushers, corn threshers, corn shellers, tractors and reapers. Their findings revealed that the demand or requirement of labour per year would diminish only when threshers, shellers, tractors and reapers were introduced successively. The contrast in the two regions examined by the authors was striking; they observed: "while in the Punjab working days per worker are rising in spite of the mechanisation of certain operations, they are sharply declining in Maharashtra"**. In a study of tractor cultivation undertaken in Shahada Taluka of Dhulia district in Maharashtra in 1967, it was found that generally the human and animal resources got replaced because bullocks and, therefore, some of the farm servants became redundant after tractorization. The extent of displacement of bullock and human labour depended upon the size of the farm—the larger the size, the greater the displacement. There was also some reduction in a number of items of expenditure like weeding, transport and ploughing and of depreciation charge on the bullocks

* *Ibid.*

** "The Effect of Technology on Farm Employment in India" by Martin Billings and Arjan Singh, *Development Digest*, January 1971.

retained on the farm, because of the prolongation of their working life*. From a cursory glance at a number of studies undertaken by research workers and organisations, it would appear that in certain areas, for example the districts of Muzaffarnagar@ (U. P.) and Ferozepore£ (Punjab) there was a displacement of human labour, both permanent and casual, with the introduction of tractor cultivation. On the other hand, a view has been expressed that the introduction of tractors, farm machinery, engines and pumps, while displacing some labour on the farms has on the whole increased the demand for agricultural labour due to its resulting in more lands coming under cultivation, increased intensity of cropping and greater labour intensity required by the adoption of improved technology in the cultivation of many crops. Mechanisation in Punjab has, it is stated, made it possible to adopt modern agricultural technology for which the available bullock power was not adequate and it has not been directed at the replacement of human labour by machinery. Some research studies undertaken by the Punjab Agricultural University have indicated that the introduction of tractors results in a small reduction of man-days per acre in the farm operations. However, this would be compensated to some extent by the additional labour requirements in the manufacture, distribution and maintenance of agricultural machinery and tractors‡.

7.26 The results of the studies made so far do not give any clear picture of the impact of mechanisation in agriculture, especially of tractorisation, on the displacement of human labour. It is perhaps somewhat premature to make a realistic or full assessment of the position, particularly as mechanisation is of recent origin in the greater part of the country and its degree differs widely from area to area and even from farm to farm. It would, however, appear that the effects of the introduction of mechanisation in agriculture on labour employment would vary according to the circumstances in different areas. Our Working Group on Agriculture has suggested that more field research needs to be undertaken to determine the optimum pattern of and extent of mechanisation for different agro-climatic

conditions involving varying cropping patterns before any policy decisions could be taken in the matter.

7.27 We consider that the existing studies are not enough and would need to be increased in number as well as in their coverage. The figures available with us show that the number of tractors employed within the country has increased from 54,000 in 1966 to around 1,50,000 by 1971, that of oil engines and electric pumpsets has risen from 0.8 million in 1966 to around 1.6 million by 1970-71, while that of tubewells has risen to about 4,80,000 in the country. These numbers alone would not, however, enable us to come to any conclusion with regard to the level of mechanisation achieved or one which would be desirable in our circumstances. In this connection, it is necessary to mention that the costs of draught animals and expenses on their maintenance have greatly increased to the detriment of the smaller cultivators. In the low rainfall areas particularly, the small farmers can utilise their draught animals for farm operations for hardly three or four months in a year, while they have to feed and maintain them all the year round. In other areas also the farmers with small holdings are finding it increasingly difficult to maintain bullocks. In view of these difficulties, it would help reduce the costs for the small farmers if the custom service of tractors is made available to them, as this would enable those who cannot maintain bullocks to carry on economically their agricultural operations. Further, this would make possible the adoption of improved practices like deep ploughing which cannot be carried out by the use of bullock power alone in some areas. However, due to the high prices of tractors, it would not be possible for the smaller farmers to undertake cultivation unless adequate custom services are provided on reasonable terms. We feel that the State Governments should assist and promote the development of custom services by setting up agro-service centres equipped with tractors in adequate numbers. The possibility of such centres providing draught animals on hire to small and marginal farmers should also be explored. In particular, it should be ensured that the services made available to the small and

* *A Study of Tractor Cultivation in Shahada District*, Gokhale Institute of Politics and Economics, Poona-4.

@ *Mechanisation of Farming in India*—Paper prepared by Dr. Roshan Singh and B. B. Singh for the Seminar on Farm Mechanisation, Vallabh Vidhyanagar, July 24–26, 1970.

£ *Studies in the Economics of Farm Management in Ferozepore district, Punjab*, Report for the year 1968-69 by Dr. A. S. Kahlon, Punjab Agricultural University, Ludhiana.

‡ Letter No. VC-72-4986 dated May 11, 1972 from Dr. M. S. Randhawa, Vice-Chancellor, Punjab Agricultural University, Ludhiana to Shri N. S. Pandey, Member-Secretary, Committee on Unemployment.

marginal farmers are timely and prompt and that undue preference is not shown to the larger farmers.

7.28 While we have no hesitation in suggesting the programmes of energising larger numbers of tubewells and pumpsets through the extension of rural electrification and promoting the use of improved implements like seeddrills and fertilizer-planters, we feel that the introduction of more sophisticated and highly mechanised equipment such as harvester-combines is likely to have considerable repercussions on the employment of labour on the farms and may in the long run lead to the displacement of labour on a sizeable scale. On the other hand, there is a keen demand from the farmers in some areas of the northern States for the use of sophisticated mechanised equipment to overcome the problems of shortage of labour and of the short interval between the harvesting of one crop and the sowing of another arising from the adoption of multiple cropping. In these circumstances, we are of the view that a selective approach needs to be adopted in dealing with this question where a set prescription would not be suitable for the requirements of all areas and situations, and that any indiscriminate extension of mechanisation needs to be effectively discouraged. We would suggest that for the purpose of determining the proper type and level of mechanisation suitable for the conditions prevailing in each region, more detailed studies should be undertaken in different regions of the country. Further, in order to cater to the requirements of small farmers who are unable to invest in expensive mechanised equipment, a good deal of local and adaptive research would be needed so as to evolve suitable designs for more efficient implements and for less expensive equipment.

Low rainfall areas

7.29 The technological problems in the low rainfall areas would be quite different from those discussed in the above paragraphs. There is only a limited scope for irrigation in a large part of the low rainfall areas of the country as in parts of Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Mysore, Rajasthan and Uttar Pradesh. These regions constitute about 36 per cent of the net sown area, covering nearly 47 million hectares of culturable land and they produce the bulk of the coarse cereals in the country. The yields per hectare of almost all the crops grown in these regions are low as compared to those in the agriculturally more developed regions of the country. The problem in these

areas is of a socio-economic nature. With a large number of the under-employed, these dry areas have much lower incomes and living standards than the irrigated and high rainfall areas. Such regional disparities have become further accentuated due to the recent advances in agricultural technology adopted in the irrigated areas for which they are more suited.

7.30 Apart from the limitations imposed by low and uncertain soil moisture conditions, these areas suffer from some other limitations, one of them being the non-availability of suitable varieties of crops. We consider that two programmes should prove crucial for these areas: first, the techniques for conservation and economical use of the available water and soil moisture and second, the evolution of a suitable cropping pattern for the particular conditions in each area. The All-India Coordinated Research Project on Dry Farming, which has for its objectives the testing of the new techniques of soil management, water harvesting, sprinkler irrigation, introduction of special agronomic practices, etc., has still to make an adequate impact on the problems. The activities relating to land shaping, water management and soil conservation which have been referred to earlier in relation to the irrigated areas have great importance for these rainfed areas also. The development programmes taken up in these areas should include preferably all these activities; suitable local schemes should be formulated from now onwards and the preliminary work initiated before the programme is taken up for implementation during the Fifth Five Year Plan. Research has also to be intensified for evolving cropping patterns and crop varieties suitable for different areas. We therefore recommend that high priority should be given to the intensification of research for evolving suitable crop varieties and determining suitable cropping patterns in the low rainfall areas. In the choice of crops, those having a high labour component, e.g., leguminous crops, should receive special attention.

7.31 Compared to the results achieved in the irrigated areas, the implementation of these programmes in the low rainfall areas may not bring about any spectacular changes in the employment and income position of the rural labour force in these areas. As the labour-intensive capacity of the programmes would be more limited other suitable measures would need to be taken to mitigate the intensity of unemployment in these areas,

and additional programmes to provide supplementary sources of employment and income would have to be thought of. Such programmes could include rural road construction, animal husbandry, setting up of small industries, etc. While these programmes are suitable for all rural areas, they have special importance for the dry farming regions.

Diversification of agricultural occupations

7.32 In addition to the programmes indicated earlier, it would be necessary to adopt other measures to generate supplementary avenues of occupation for the rural labour force which suffers from the endemic incidence of under-employment. There would be need, therefore, to devise ways and means of diversification of agriculture and to foster the growth of occupations which could give the weaker sections in the rural areas supplementary incomes and help raise them from below the poverty line. The new agricultural strategy, involving the introduction of high yielding varieties of seeds and the other improved techniques and inputs, such as heavy dosages of fertilisers, irrigation water, etc., has benefited by and large, the progressive and bigger farmers who could command these expensive inputs. But this technology has bypassed, to a large extent, the small and marginal farmers and agricultural labourers, with the small result that the income disparities in the rural areas have widened and social tensions have been created or accentuated. For reducing such social tensions, and in the interest of social justice, there is need for programmes which would, in particular, benefit the weaker sections of the rural community by giving them supplementary occupations and additional incomes.

Animal husbandry and dairying

7.33 We feel that one of the fruitful areas for diversification of agriculture is an extensive programme of cattle rearing and milk production. Admittedly, there is a considerable hiatus between the demand and supply of milk and milk products in the country. Better availability of milk and milk products will not only improve the nutritional content of the Indian diet and help to meet the current deficiencies, but will also be a source of occupation for millions of people in the rural areas all over the country. This programme would, however, need to be stimulated through substantial investment by Government and supported by well planned, scientifically organised and efficiently run institutional arrangements. In this connection, the

pioneering work done and the good example set by the cooperative organisations in the Kaira district in Gujarat readily come to mind. Though mixed farming was generally practised by the farmers of Kaira district, they had to suffer many hardships because of the meagre and sporadic income from milch buffaloes and the lack of satisfactory marketing arrangements. Therefore, the sheer need of survival and the force of circumstances impelled them to organise, under the guidance of the late Sardar Vallabhbhai Patel, the Kaira District Milk Producers' Union Limited, Anand, popularly known as Amul, in 1946. The very laudable and pioneering work done by the Union in organising the production, collection and purchase of milk from the members of its constituent cooperative societies as also in processing and manufacturing various milk products and their marketing is too well known to be recounted here.

7.34 The Union has been a catalyst in organising the farmers for improving their production of milk by better feeding, management, medical care, etc., of their milch cattle. It has also helped in upgrading their breed, provided the veterinary services needed for them, arranged for the production and efficient distribution of balanced animal feed, etc. In a way the Union has brought about radical changes in the rural economy of the district, benefiting in particular the small farmers. In 1970 there were 706 societies with a membership of 1.80 lakh farmers affiliated to the Union. During the year 1971-72, the total turnover of the Union was of the order of Rs. 33.60 crores.

7.35 The formation of such large and well organised institutions for dairy development and the processing and marketing of milk and its products has still to spread to other parts of the country. In Gujarat itself, the programme has been extended to Mehsana district and is likely to be extended to other districts also. The agencies for the small and marginal farmers and agricultural labourers which have been set up in 87 districts in the country are also encouraging animal husbandry activities. Under the SFDA, the flow of credit for various activities including animal husbandry is being augmented. In the MFAL programme, the focus is on ancillary activities like dairying, poultry farming, pig-gery and agro-industries which are both market-based and employment-oriented so that the marginal farmers and agricultural labourers could increase their productivity and income through them. Yet, without suitable organisational arrangements at the village,

block and district levels for the processing and marketing of the products, it would not be feasible to organise the production and marketing of milk and milk products, poultry, eggs, etc., on an adequate and efficient scale so as to provide remunerative prices to the producers and supplement their meagre incomes.

7.36 In bringing about rapid expansion in the production and distribution of milk, and thereby providing part-time occupation and supplementary income to large numbers of the rural folk, the project known as 'Operation Flood' could act as a catalytic agent. This is the largest dairy project started under the Fourth Plan. It is to be operated by the Indian Dairy Corporation and has been initiated by the Government of India in collaboration with the Food and Agricultural Organisation of the United Nations and the World Food Programme (WFP). Funds of the order of Rs. 95 crores will be generated by the sale of reconstituted milk manufactured from the skimmed milk powder and butter oil provided as aid by the WFP. Under this programme, there will be established a national milk grid which will include the dairy projects in the four cities of Calcutta, Bombay, Delhi and Madras and 17 dairies in 10 States. A substantial portion, that is, Rs. 45 crores, out of the total sums available, will be utilised for the development of animal husbandry and the augmentation of milk production. It has been estimated that nearly 2 million people will find additional work as a result of the project once it is implemented in its entirety. At the same time, nearly 10 million people would be able to obtain additional nutritional milk products. The programmes under the 'Operation Flood' will be taken up in 57 districts during the first round of 5 years. This programme of extending milk production and dairying activities is eminently suited to serve the needs and interests of the small and marginal farmers and we have no doubt that by providing them part-time occupation and supplementary income, it will benefit them considerably.

7.37 The form of the apex organisations for undertaking the programmes of milk production and sale would have to allow for considerable variations in different States. While in some states like Gujarat, the organisations like the Kaira Union are cooperative institutions in others, the State Governments propose to operate the schemes of milk production etc., through corporations like the State Dairy Corporations. Whatever be the form of the apex organisation, it is essential that the small and marginal farmers who will

be the main participants in, as also the beneficiaries of, the programme, should be organised on proper lines at the village and block levels. The Government should, therefore, foster and promote this programme by providing financial assistance for the capital investment, by creating the apex organisations and by organising suitable agencies at the village and block levels for undertaking milk production, collection, etc.

7.38 After dairying, the programme of poultry development is important as a provider of subsidiary occupation and supplementary income to people in rural areas, particularly small and marginal farmers and agricultural labourers. The programme also offers considerable scope for improving the nutritional value of the diet of the people. This is one of the major programmes on which emphasis is being laid under the SFDA and MFAL schemes. The scope for expansion of this programme is quite large; however, there are problems in respect of marketing and sale of poultry products in some of the rural areas where these schemes have been taken up due to the difficulties of transport and location and the distance from the larger towns which can provide an adequate market. In the development of poultry farming, preference should therefore be given to areas which have got facilities of communication and transport with large urban centres. The Government propose to encourage the establishment of four egg collection and marketing centres at Calcutta, Delhi, Bombay and Madras in the cooperative sector with facilities for cold storage to ensure the farmers a reasonable price for their produce. Such arrangements would also need to be made for the organised marketing of the poultry products in other large cities and towns so as to benefit the rural producers including the small and marginal farmers and agricultural labourers.

7.39 The programme of piggery development also has potential for providing additional occupation and income to the rural people. Bacon factories for the production of pork and other piggery products have been set up at a number of places but some of them we understand, are facing difficulties in the full utilisation of their installed capacity due partly to the shortage of quality pigs and partly to the lack of demand. In order to overcome these difficulties, the States have been requested to take up intensive development of piggery around the bacon factories, to distribute balanced feed and to diversify their production by the slaughter of other animals also for supply of meat. A larger

availability of better quality pigs and the greater utilisation of the capacity of the pig-gery units and higher output should result in a progressive reduction in the production costs and this may help improve the demand which is at present low, mainly due to the high prices of their products.

7.40 The development of sheep breeding and the production of raw wool are also important from the point of view of greater production as well as of foreign exchange earnings. As is well-known, the woollen goods industry is an important segment of our textile industry and it is a valuable earner of foreign exchange. Besides providing the raw material for woollen fabrics and yarn, raw wool is the basic material for shawls, rugs, carpets, etc., which constitute an important section of our handicrafts industry and which are also exported in large quantities. The industries for the manufacture of these articles are labour intensive and provide employment to large numbers in the handicraft sector. But for the supply of this basic material also the country has to depend largely upon imports. So both in the interest of foreign exchange earnings and of employment generation, the maintenance of the health of the woollen goods industry and its expansion is of great importance. The industry has been handicapped in the past because of the non-availability in adequate quantities of indigenous wool suitable for manufacture of woollen fabrics, with the result that most of the raw wool or the intermediate product, namely, wool tops has to be imported from abroad. Our annual import of raw wool is in the neighbourhood of Rs. 15 to 16 crores and the industry has suffered grievously in the past because of the inability of the country to provide sufficient foreign exchange for the import of its current requirements as also for its expansion. If the full requirements of the industry were to be met and if it were to be expanded, our need for import of raw wool would be of a substantially higher order. It is necessary, therefore, for maintaining and developing the production of this industry and the export of woollen goods, that raw wool of suitable quality be made available in adequate quantities. For this purpose, sheep breeding needs to be developed and expanded.

7.41 This activity could be developed profitably in the desert areas of Rajasthan and Gujarat as well as in the hill areas of Jammu and Kashmir, Himachal Pradesh and Uttar Pradesh. Sheep breeding does not of course provide as large an amount of employment per unit of investment as some other ancil-

lary industries. But at the same time there are certain regions like the Bikaner-Jaisalmer area in Rajasthan, where the only alternative employment would be the infrequent cultivation of coarse grains when due to the vagaries of the monsoon there is a sudden precipitation once in a few years. In such areas sheep rearing could provide the much needed additional income for the weaker sections of population and supplement their diet. For this, it will be necessary to use exotic rams and ewes for intensifying the development programmes in the coming years. It is understood that the cross-breeding experiments with the Rambouillet rams carried out in Jammu and Kashmir, Himachal Pradesh and Uttar Pradesh have yielded good results. The Central Sheep Breeding Farm at Hissar, where the Corriedale sheep are being bred, is also proposed to be fully established by the Government during the Fifth Plan period. Sheep development would also need to be extended through artificial insemination of the local stocks so that the demand for imported exotic rams could be reduced.

7.42 However while the bulk of these exotic animals have been reared successfully in the Government farms, where they are looked after with care and receive proper medical attention, there are some problems in releasing them to the farmers for rearing purpose. Firstly, proper fodder cultivation would have to be undertaken for feeding them. In Rajasthan, where sheep breeding is an important occupation of the small farmers, preference in feeding the available fodder is generally given by them to their milch and draught cattle due to economic reasons. The availability of fodder is generally not adequate even for the milch and draught cattle. All this has resulted in the denudation of large stretches of grasslands. Again, cross-bred animals require more care than the indigenous varieties. They are also prone to diseases which take a heavy toll of the life of such animals once they are released for breeding by sheep farmers. The sheep extension programmes would, therefore, have to be integrated with fodder development and greater veterinary facilities if this occupation has to expand in a big way with exotic varieties of sheep in order to supply raw wool to the woollen goods industry as well as to produce more mutton, the demand for which is expanding fast in the present socio-economic conditions.

Fisheries development

7.43 The development of fisheries would also provide some part-time work or subsidiary occupation to a section of the village

people, particularly in the maritime states. It would also provide food rich in proteins in which our diet is deficient. Besides, the scope for increasing our earnings of foreign exchange from marine products is very considerable in view of our potential resources. The export of fish and marine products has increased many fold during the last few years, rising from Rs. 6.4 crores in 1965-66 to Rs. 42.0 crores in 1971-72 and the prospects of earning increasing amounts of foreign exchange by this export are considered to be bright. Moreover, our ocean resources of fish and marine products have not hitherto been exploited on any considerable scale. While some serious endeavours have been made during the last five or six years to undertake deep sea fishing in and around the coastal belt of Kerala, much of the vast deep sea area adjoining the other maritime states is still virtually unexploited. Therefore, both for augmenting the foreign exchange resources of the country as well as supplementing the protein content of our diet, as also for providing more employment, it is essential that greater attention be paid to the development of marine fish resources. Steps could also be taken to exploit the availability of sea-weed and algae for their protein content, iodine and also for compost and fertilisers.

Horticulture plantation and other crops

7.44 An important activity for the diversification of the agricultural practices of farmers with small and marginal holdings, especially on the periphery of the bigger towns, urban areas, and growth centres would be the cultivation of vegetables. The present area and production of vegetables in the country are estimated to be around 8 lakh hectares and 60 lakh tonnes, respectively. At this level of production, the availability of vegetables works out to barely 1.5 ounces per capita per day, which is nearly 25 per cent of the minimum daily nutritional requirements. It is expected that with the completion of the Fourth Plan programmes for vegetable cultivation, about 3 ounces of vegetables per capita per day would be available for the rural population and 4 ounces per capita per day for the urban population. Steps are being taken for the popularisation of vegetable cultivation in the rural areas by its inclusion in the crop rotation practices being suggested under the Centrally sponsored schemes for multiple cropping. The programmes under the SFDA and the MFAL have also stimulated vegetable cultivation in those areas which are connected by roads to nearby markets, towns and cities. The growing of vegetables is, we understand, quite a profi-

table proposition and is yielding incomes from Rs. 3,500 to Rs. 4,500 per hectare at some places.

There are, however, marketing problems which would have to be faced by the farmers. As in the case of other crops, the wholesale prices would, in the absence of organised marketing, fluctuate with the variations in the supply of and demand for the commodity. In spite of their skill and enterprise, the marginal farmers and small vegetable growers, even on the periphery of major cities like Bombay and Delhi, are unable to tackle satisfactorily the various problems of marketing. The wide and sometimes violent fluctuations in the prices of their produce and other vagaries of the marketing mechanism leave the growers as mute and helpless spectators and operate as a severe disincentive to the taking up of vegetable growing as an occupation. It would be necessary, therefore, to develop more facilities for cold storages in and around major cities, as also to organise the marketing of the produce by the formation of suitable organisations either through cooperatives or some Government agency. These alone would provide the necessary safeguards and also act as an incentive to the farmers to take to the cultivation of vegetables on a large scale, thereby earning larger incomes and finding fuller employment.

7.45 Another programme which would help meet the nutritional requirements is that of horticultural development. The availability of fruits and fruit products within the country is less than the minimum estimated requirements of two ounces per capita per day for providing adequate protective foods. Special programmes for the cultivation of fruits, like olives, bananas, walnuts, mangoes, citrus, pine-apples and peaches are being planned for the next few years. For this purpose the adoption of controlled planting and proper spacing so as to have an optimum number of plants per acre, use of chemical fertilisers and weedicides, etc., would need to be extended at an accelerated pace. There is also need for the extension of cultivation of apples, pears and stone fruits like apricots, plums, etc., in the mountainous and sub-mountainous regions of north India. Greater stress would also be needed on aerial spraying of pesticides for crops like mangoes, bananas and citrus fruits.

7.46 One of the main lacunae in the existing horticultural industry, however, is the lack of adequate utilisation of the surplus production. We understand that some studies undertaken in the recent years have indicated that there is a wastage of nearly 30 per cent of the fruits and vegetables produced in the country

every year. At the same time, barely 0.5 per cent of the produce is processed by the food processing units. Greater importance, therefore, would have to be given to the promotion of processing industries in the producing areas. These would encompass, for instance, pineapple canneries in Assam and Meghalaya, apple processing factories in Jammu and Kashmir and Himachal Pradesh, as well as cold storage units for large export-oriented products like mangoes. Organisational arrangements would also have to be made for the collection of fruits from farms, their transportation, storage and processing at convenient centres as well as for their sale at competitive prices. These activities would also incidentally foster the growth and dispersal of industries in the rural and suburban areas particularly as these industries lend themselves sufficiently to operation on a small scale.

7.47 The development of fruit and vegetable processing, preservation and of canning industries, which are still in a nascent stage in the country, would be an important factor in stimulating horticulture and vegetable growing. As mentioned earlier, barely 0.5 per cent of the produce of fruits and vegetables is processed by the food processing units, while nearly 30 per cent of the fruit and vegetable produce goes to waste. The industry is also currently utilising only 35 per cent of its installed capacity. It is stated to be facing difficulties due to several factors, such as high costs of imported tin plates used for cans, high and fluctuating prices of sugar and heavy overheads due to the under-utilisation of the capacity. On the other hand, there is an increasing demand for tinned products in the international markets. It is, therefore, important to take remedial measures to enable the industry to become competitive in the world markets. At the same time, a rapid development and efficient working of this industry will help maintain a steady level of prices of these articles for the growers and also render yeoman's service to the consumers in the country by enabling them to supplement their diet, by obtaining more fruits and fruit products at reasonable prices. In particular, the perishable fruits like mangoes, apricots, bananas, etc. which are at present largely going waste would become a source of additional income to the growers.

7.48 There are other valuable crops including plantation crops like tea, coffee, etc., as well as cashew nuts, which are grown in the country and which provide employment to a large number of persons. Some of them earn substantial amounts of foreign exchange for the country. The principal plantation crop as

is well known, is tea which employs over 7 lakh persons, more than 6 lakhs on the plantations themselves and about 0.8 lakhs in the factories. At the same time, it earns foreign exchange of the value of about Rs. 150 crores every year. While the production of tea has been slowly rising from about 370 million kgs. in 1965-66 to about 420 million kgs. in 1970-71, its area has remained more or less steady. While the internal demand for tea has been steadily rising from 170 million kgs. in 1965-66 to about 200 million kgs., its exports have been fluctuating around 200 million kgs. The other important plantation crops are coffee, cardamom and pepper, the export earnings of which come to about Rs. 45 crores annually. In the case of coffee, a little less than 50 per cent of the crop is exported, while the rest is consumed within the country. The production of cardamom and pepper is small in quantity but much of it is exported, and due to their high unit value, these items earn a good amount of foreign exchange. These plantation crops are highly labour intensive and in view of their importance as earners of foreign exchange as also the increasing demand for them in the country, there is a need for increasing their production and extending their area to the extent feasible.

7.49 Cashew is another crop, the possibilities of increased production of which should be explored. India is at present one of the major suppliers of processed cashew kernels to the world markets and its export earnings have in the recent past been running at a level above Rs. 60 crores annually. This industry is to a large extent dependent for its production on raw nuts imported from East African countries. These countries are, however, now taking to mechanised processing of cashew kernels themselves for the world markets. It is apprehended that this would seriously affect the supply of imported raw nuts required for our processing industry which is labour intensive and which employs about one lakh persons in the organised sector, besides those employed in unorganised industry. For maintaining the current level of production in the cashew processing industry as also that of our earnings of foreign exchange, it is desirable that as a remedial measure the cultivation of good quality cashew nuts should be promoted. This would help meet the existing shortfall in the requirements of the industry and thereby make India self-sufficient in the matter of raw nuts. Certain areas and regions in a number of States in the country, we understand, are suitable for the cultivation of cashew nuts. Efforts should be made to bring such areas under this crop and to evolve better varieties

and improved techniques for its cultivation.

7.50 Another crop which can be introduced in several areas for the diversification of our cropping pattern is sunflower. India is, at present, deficient in the production of oilseeds and the per capita availability of vegetable oils is about 7.5 grams per day as against the norm of about 40 to 45 grams per day of oils and fats. With the growth of population and the improvement in living standards, this deficiency is likely to increase. To meet the deficiency, the country has to import hard oils and animal tallow as a substitute for edible oils used in the soap and fatty acid industries, and also soyabean oil and other oilseeds like rapeseeds for edible purposes. It has, therefore, become necessary to explore the possibilities of extending the area under oilseeds and to introduce the cultivation of alternative oilseeds with high yields and oil content in order to bridge the gap between the demand and supply of oilseeds. Sunflower is one of the promising crops for this purpose, though its cultivation is, at present, in an experimental stage. Steps are being taken, we understand, to bring under sunflower cultivation an area of about 6 lakh hectares by 1975-76. In view of the better oil content of this oilseed and also its suitability for being grown as a pure crop in dry areas and as a mixed crop in irrigated areas, there is a great potential for the expansion of its cultivation in the country. It is also possible to cultivate sunflower at different seasons of the year; moreover, due to its short duration, its cultivation as a catch crop can help increase the intensity of cropping and add to the income of farmers. It would therefore provide additional employment and income to the farmers and at the same time make good the deficiency of edible oils within the country. Similarly, it is desirable to explore the possibility of extending the cultivation of groundnut, mustard and other oilseeds in different areas of the country and growing them at different seasons either as a pure crop or mixed with other crops in irrigated areas.

7.51 Another oilseed, which is a good source of both oil and protein and can be used for the manufacture of various food items and for industrial purposes, is soyabean. As this oilseed is a rich source of protein, it could help solve the problem of protein deficiency in the country. Due to its versatility and the richness of its protein content it could be utilised for manufacturing a large number of food items like milk, butter, yoghurt, cream, flour, etc. We understand that a few food products units based on soyabean are being set up in some parts of the country. As this industry expands and the demand for

soyabean increases both for the manufacture of edible products like biscuits and baby foods as well as for the production of soyabean meal or cake for poultry and animal feed, the area and production of this oilseed would need to be expanded. The importance of soyabean for augmenting our vegetable oil resources also requires the expansion of the area under this oilseed. We understand that four States—Gujarat, Madhya Pradesh, Maharashtra and Uttar Pradesh—offer good scope for the cultivation of soyabean.

However, there are some problems in the rapid expansion of the area under this crop. The high production potential of exotic varieties of soyabean established on research stations and on demonstration farms has not been realised on farmers' fields. This has resulted in high production costs to the farmers who are therefore reluctant to increase the area under the crop. The high price of seed is also said to be another factor inhibiting the expansion of the area. The lack of a suitable variety for inter-cropping with cotton, which is the main feature of the programme in Gujarat and Maharashtra and the absence of disease-free varieties for cultivation in the northern States are other major problems. More research and demonstration trials are needed for evolving suitable varieties for different regions and for realisation of better yields on the fields of farmers. We understand that efforts are being made for evolving improved varieties and suitable production techniques so that the cultivation of soyabean can be stepped up in future. It is expected that the current constraints hampering the extension of cultivation of this crop would be overcome in the near future and it should then be possible for it to increase its coverage substantially. Some technical problems also exist in the processing of this oilseed which need to be removed early so as to promote the full utilisation of its potentialities.

7.52 A crop which can enhance the farmers' incomes by inter-cropping with sugarcane, especially in the irrigated areas, is sugarbeet. It can be cultivated largely in the States of Punjab, Haryana, Rajasthan and western Uttar Pradesh. It is a winter crop of six to seven months' duration and capable of yielding about 35 tonnes of root with 15 per cent sugar content. Assured irrigation is one of its main requirements. It can tolerate a fairly high salt content and alkalinity in the soil, and can therefore be grown in saline and alkaline soils where other crops do not grow well. As the crop would generally

have to be sown in October, it would be ready by April, by which time the bulk of sugar-cane crushing in the northern States is practically over. Thus, it can supplement the raw material requirements of sugar factories, enabling them to continue their operations for a further period of two to three months. Besides providing additional employment in the agricultural sector, it would extend the period of employment of sugar factory workers who suffer from seasonal unemployment. One of the major problems in the expansion of cultivation of this crop is, however, the cost of equipment required to be erected in the existing factories for undertaking the manufacture of sugar from sugarbeet. This problem would need to be resolved if the cultivation of sugarbeet is to be extended in the northern States, thereby enhancing the production of sugar as well as providing employment both in agriculture and in sugar factories.

Employment potential of the forestry sector

7.53 An activity which has great scope for expansion and for providing employment to large numbers in the rural areas is the exploitation of our forest resources. Of the total forest area of 75.03 million hectares in the country, 45.63 million hectares of exploitable forest areas are in use, while 14.76 million hectares are potentially exploitable. The larger exploitable forest areas are in Madhya Pradesh followed by Maharashtra, Andhra Pradesh, Orissa, Mysore, Tamil Nadu and Uttar Pradesh. Certain areas, like the Bastar region in Madhya Pradesh, the rain forests in Mysore and Kerala and the inaccessible inner Himalayan forest growing fir and spruce, are also yet to be exploited. One of the factors inhibiting the proper exploitation of the forest resources is the inaccessibility of the forest areas due to the lack of communication facilities. Work on forest roads would not only give employment during the construction phase, but also open up the forest areas for secondary and tertiary employment. We understand that it is unlikely that the target of construction of forest roads envisaged for the Fourth Plan period will be achieved. Similarly, the farm forestry programme which would provide the basic requirements of fuel wood in the rural areas has not gained much momentum. It is understood that there are considerable areas of grazing land in many villages overgrown with noxious weeds, especially in Assam, eastern Uttar Pradesh, Bihar, Orissa and Madhya Pradesh, and that these

could be converted into village forests. Clearing the land of these weeds immediately after the monsoon and utilising it for planting quick growing trees could well provide employment to some unemployed persons in the villages. The maintenance of the planted trees would involve continuous employment of a smaller number of persons over a period of years. Suitable schemes could be drawn up for the purpose and the actual employment potential estimated before they are initiated.

7.54 In addition to the employment provided by the primary forest activities, the forest products provide considerable secondary and tertiary employment. Timber and fuel wood, for example, which are derived from the forests already in use, are used for railways, for defence purposes and for communications. The forests also provide the raw materials for paper pulp, paper products, match box and other wood based industries. Currently, we are importing wood pulp for the paper industry at the cost of valuable foreign exchange. At the same time, there is great scope for the plantation of soft wood trees, like eucalyptus, pine, spruce, etc., for utilisation by these and other industries. Other useful minor products from the forests would be tendu leaves, gum, resin, tanning material, medicinal plants, essential oils, dyes, cane, bamboo, grasses, lac, honey, beeswax, etc. The utilisation of minor oilseeds of tree origin like neem, kusum, karanj, sal, etc., could also offer some scope for employment. There are, however, limitations to the collection of these oilseeds due mainly to the short time available for the purpose, the inaccessibility of several forest areas and the problems of transport, storage and marketing, etc.

7.55 The National Commission on Agriculture has suggested in its Report* that in order to meet the country's requirements of timber and pulp wood, a total area of 7.26 lakh hectares could be clear-felled and planted between 1974 and 1980, in the inaccessible hardwood forests and the mixed forests of valuable and low quality stands, for which an expenditure of Rs. 242 crores would be required. This would involve the annual development of nearly 14,300 hectares of hardwood forest areas and 90,000 hectares of mixed forest areas between 1974 and 1980. The programme would generate employment of about 450 million man-days in the construction phase. Besides, additional employment of about 377 million man-days would

* Interim Report on Production—Forestry—Man-Made Forestry. National Commission on Agriculture, Government of India, August, 1972.

be generated in the secondary and tertiary sectors for operations like transport of its produce and its handling, industrial processing, etc. In order to develop forest areas of 7.26 lakh hectares, construction of forest roads would have to be taken up over a length of 7,260 kilometres which would provide additional employment of 10 million man-days in the construction phase. We would endorse the suggestion of the National Commission on Agriculture in this respect, as we feel that they would not only help in the proper maintenance of the country's forest wealth and the exploitation of its resources but would also provide the much needed employment in the primary, secondary and tertiary sectors.

Rural roads

7.56 A large sized programme of road construction has great employment potential, not only in the construction phase but also in the maintenance or continuing phase. A well-dispersed network of all-weather rural roads would be a catalyst for the development of rural areas as it would help in the movement of goods and services and also open up rural areas for small industries and other activities. The increased production in agriculture resulting from irrigation and improved techniques including land management would raise the demand of those engaged in agriculture for consumer goods and services which would come mainly from the urban areas. There would also be need to move the increasing volume of agricultural produce from the rural areas for consumption by the population in the urban areas and growth centres as well as in other rural areas.

7.57 From an assessment made by our Working Group on Agriculture, it would appear that the number of villages without feeder roads to the nearest highways or towns varied between 33 and 50 per cent. This would mean that about 2 to 3 lakh villages were without feeder roads. If all these villages were to be connected with the nearest highways or market towns, this would involve the construction of about 4 to 6 lakh kilometres of rural roads, assuming each of these villages to require a minimum of 2 kilometres of road connection. According to the findings of the Committee on Rural Roads set up by the Government of India (Ministry of Transport and Shipping) in 1968, the rural

road length which could be feasibly constructed in the next twenty years was 3.24 lakh kilometres of village roads and 2.30 lakh kilometres of district roads in the country*.

7.58 It would be recalled that we suggested, inter alia, in our Interim Report that the Central Government should, in consultation with the State Governments, devise appropriate measures by which any diversion of funds from the roads programme could be completely eliminated and the funds earmarked for the programme would in fact be spent on it. We had also recommended that if a State had been able to fully utilise its Plan provision on roads and if it was in a position to execute further programmes of road construction, an additional sum of Rs. 110 crores could be made available for these programmes during the remaining part of the Fourth Plan**.

7.59 For the programme of rural roads to gain momentum, the Working Group on Agriculture had suggested that the construction of rural roads with a target of additional length of one lakh kilometres should be taken up during the Fifth Plan. We feel, however, that a larger programme of construction of such roads would be necessary during the Fifth Plan as an integral part of the entire road programme to be taken up in the country. We have dealt with this as well as other aspects of the programme of road construction in our Chapter V.

7.60 The above programmes do not, however, exhaust the list of employment generating activities which could be taken up in the rural areas. In this connection we might mention the programme suggested by Shri V. V. Giri, our President, for land colonisation over compact areas of 1,500 to 2,000 acres in different parts of the country. It is expected that such colonies would require for their operation various categories of persons such as civil, mechanical and electrical engineers, agricultural graduates, persons trained in animal husbandry, co-operation, forestry, etc., teachers, medical and health personnel, etc. Agriculture would be the principal activity in each of these colonies and would be supplemented by other occupations such as agro-industries. We understand that the Ministry of Agriculture have already initiated steps to collect data from different States regarding suitable areas where such compact

* *Report of the Committee on Rural Roads, 1968, Ministry of Transport & Shipping (Roads Wing), Government of India.*

** *Interim Report on Short-term Measures for Employment, Committee on Unemployment, New Delhi, February, 1972.*

blocks may be available for such land colonisation schemes. We would suggest that once the details regarding the areas available, the extent of reclamation which would be necessary, the irrigation facilities that could be provided and the number of colonists willing to join such schemes, become available, and the organisational pattern and financial outlays of the schemes have been worked out, the examination of the various aspects of this programme should be undertaken as early as possible with a view to considering the question of its implementation on an experimental basis.

In addition to the suggestion regarding the land colonisation scheme, there are also other programmes of development which could provide additional employment in many areas. These would include village and small-scale industries, sericulture, etc. Again the increase in agricultural production, the extension of programmes like dairying, poultry, piggery, sheep and cattle breeding, the transportation of agricultural inputs to the rural areas and the agriculture produce to the markets, growth centres and urban areas would require the organisation and operation of efficient marketing arrangements and transport facilities, link roads, etc. There would be need for the construction of roads, market-yards, shopping centres, storage godowns and cold storages. All these activities would be labour intensive in the construction phase and their management, maintenance, etc., would also generate continuing employment on a permanent basis. These programme of development would thus generate employment of a considerable magnitude in the secondary and tertiary sectors. Besides, by reason of their impact on the stagnant village economy, and their multiplier effect, they would quicken the pace of economic activity in the rural areas and would be productive of wealth as well as employment on a large scale.

Problems of weaker sections in the rural areas

7.61 We have discussed a number of programmes for the rural areas which could provide additional employment during the Fifth Plan period and thereafter. The bulk of the construction programmes are, no doubt, short term programmes providing employment only while the works are continuing. However, with the availability of irrigation and with proper soil and land management practices, it may be feasible to adopt new levels of technology in agriculture which

would help increase incomes and employment of the farmers in such areas. The allied activities and ancillary industries mentioned by us would also supplement incomes and increase employment in the low rainfall and dry farming areas. We are aware, however, that the weaker sections of the rural community like small farmers, tenants, share-croppers and landless labourers have, by and large, remained untouched by the process of technological change so far. Though the use of high yielding varieties of seeds is neutral to the scale of operations, at present it is being adopted to a great extent by the bigger farmers and is benefiting them by way of increased production and income. It has thus made it possible for them to accumulate substantial surpluses and, as a result, to build up an expanded resource base. The adoption of innovations has therefore been taking place to a greater extent among the farmers with large holdings than among the small farmers. There has thus been a marked improvement in the material conditions of the big and middle farmers in the irrigated areas of the country as compared with those of the small and marginal farmers, tenant farmers and landless labourers whose position has either remained stagnant or has deteriorated due to the continued prevalence of under-employment or seasonal unemployment.

7.62 The major factor responsible for this increasing disparity is the skewed nature of the size distribution of the land holdings in the country. The latest data in this regard, available from the 17th Round of the NSS undertaken in September 1961—July 1962, revealed that about 39.1 per cent of the holdings were of a size below one hectare and covered a little more than 7 per cent of the total area. Nearly 75 per cent of the farmers cultivated holdings less than three hectares covering 31 per cent of the area. At the other extreme, 4.5 per cent of the farmers had holdings of more than 10 hectares which covered nearly 29 per cent of the total cultivated area in the country. The differential between the area cultivated by the small farmers as compared with that cultivated by large farmers was wider in those States where the pressure of population was higher. The highest pressure of population on land was in Kerala followed by West Bengal, Uttar Pradesh, Tamil Nadu, Orissa, Jammu and Kashmir and Bihar.

7.63 It is not as though small farmers are not capable of adopting improved technology. As mentioned earlier, the use of high yielding

varieties of seeds is neutral to scale. Essentially, the 'new technology' is a more labour intensive technology, since it requires not only the use of high yielding varieties of seeds and the provision of inputs like assured water supply, fertilisers and pesticides, but it also requires careful and time bound operations. All these can be undertaken profitably even by the small farmers, but they face a number of problems which impede the adoption of such improved technology by them. One of their major problems is that of obtaining institutional credit at reasonable rates of interest for the purchase of requisite quantities of seeds, fertilisers, agricultural implements, etc., and for the construction of wells, or tubewells for the installation of pumps, etc. In most States, cooperative credit institutions are not, by and large, in a position to cope with the demands of the small farmers. We find from a number of studies on the working of the cooperative credit institutions that in most cases credit facilities from them have gone mainly to the bigger farmers while the needs of the small farmers have been neglected.

7.64 It is necessary, therefore, to take measures for ensuring the easy availability of credit to the small farmers from the financial institutions. The nationalised banks have not as yet covered all the rural areas for the purposes of supplying credit. The cooperative credit societies have piled up arrears and there are a large number of moribund societies particularly in the eastern states. It is therefore necessary that special credit institutions should be set up for the weaker sections and special procedures should be introduced at the primary level for speeding up the supply of credit to them.

7.65 The inability of the credit institutions to supply medium and long term credit needs of the small farmers without any recorded rights in land is also a problem that needs to be solved urgently. For this purpose, it will be necessary that the record of rights in land in the different States are brought up-to-date as quickly as possible. We would suggest that expenditure on this account could be considered as Plan expenditure as it is necessary for the implementation of agricultural development programmes.

7.66 Another major institutional factor inhibiting the adoption of the new technology by the small farmers is the prevailing tenurial system. The laws enacted for tenancy reforms in the different states during the sixties provided for the fixation of fair

rents to be paid by tenants to landlords, the assurance of security of tenure for the tenants and the vesting in them of occupancy rights on the lands they cultivated. The studies undertaken on this subject have, however, revealed many lacunae in the implementation of these reforms in some parts of the country. In addition to the limited effectiveness of these laws in ensuring security of tenure, the rents charged by the landlords from their tenants are in many areas much higher than fixed under the enactments in the different states. These laws have not brought much relief to the share-croppers, who under the present system have to incur the entire expenses of cultivation, while the greater share of the produce is claimed by the landlords. This system of share-cropping which is prevalent mainly in the eastern states has been a disincentive to investment and adoption of improved practices of cultivation. In this connection, we have noted that fresh attention is now being paid to this problem and further legislation is being undertaken in various states to provide better security to the tenants and to confer on them suitable ownership rights so as to ensure that ultimately the tiller has a direct vested right in the land cultivated by him.

7.67 It would be necessary to see that once the land reforms laws are enacted, they are effectively implemented and the small farmers assured of security of tenure on the lands they cultivate so that they may have sufficient incentive for increasing production, greater investment and improved practices and are able to obtain adequate amount of credit for the purpose. We feel that in the implementation of these laws, the rights vested in the cultivators of the soil should in fact be properly secured to them and such rights should not be allowed to be transferred or alienated to non-agriculturist. We also feel further that there is need for consolidating the holdings of farmers and would suggest that consolidation programmes should be taken up expeditiously and completed as early as possible. It would also be necessary to ensure that the holdings once consolidated are not allowed to be fragmented subsequently, as otherwise the effort and money spent in consolidating holdings would become infructuous. The legislation regarding land ceilings should be enacted and implemented as early as possible, so that all the surplus lands are distributed to deserving persons. It should be ensured that these persons are also provided with the necessary inputs and financial assistance to enable them to set themselves as viable farmers.

7.68 The problems of these disadvantaged classes, namely small farmers, share-croppers, etc., are of such complexity and magnitude, and the numbers involved are so large, that well thought out steps will have to be taken and organised efforts made on an adequate scale to provide assistance to these persons. These classes have, because of their poverty, illiteracy and general backwardness, been elbowed out by the richer, better educated and more influential and well-to-do farmers in the matter of obtaining benefits of various facilities like credit, tubewells, fertilisers, etc., provided by governmental agencies. If the programmes of development undertaken by the Government are to provide real assistance to these people and improve their economic conditions, it is essential that concerted efforts on a commensurate scale be made for achieving this objective. Some special programmes specifically directed to improving their lot have, in the recent past, been undertaken by Government, and these include the Small Farmers Development Agency, the Marginal Farmers and Agricultural Labourers Schemes, etc. The Small Farmers Development Agencies arrange for the supply of credit to the small farmers for various types of investment to raise the production from their small holdings. The Marginal Farmers and Agricultural Labourers Agencies assist these classes not only in increasing production from their lands but also in taking up subsidiary occupations like animal husbandry, poultry, piggery, vegetables, and fruit growing. Other programmes like the Crash Scheme for Rural Employment, the Pilot Intensive Rural Employment Programmes and the Drought Prone Area Programmes have also been taken up and these aim at providing employment to the unemployed and the under-employed in the construction of durable and productive assets in the rural areas. The working of some of these programmes has been discussed further in Chapter V of this Report. We would, however, like to observe here that these programmes are at present being implemented on a pilot basis and would be able to bring assistance and succour only to a small section of such disadvantaged persons by the end of the Fourth Plan. It would be necessary for such programmes to be extended and their coverage enlarged to other suitable areas so that the bulk of the persons belonging to these categories in the rural areas could also be helped to increase their incomes and improve their living conditions. Suitable local organisations of the beneficiaries of these schemes

would also need to be set up for the purpose of enabling them to obtain the full benefits of the measures designed and undertaken for improving their condition. We have also discussed in Chapter V the question of the suitable administrative and organisational set up for this purpose.

ANNEXURE (1)

Extracts from the report of the Working Group on Agriculture

"Estimates of Unemployment at the Beginning of the Fourth Five Year Plan"

"1.20 In order to minimise the error likely to arise in computing the estimates of unemployment and under-employment in rural India, a simple average of the participation rates and unemployment/labour force ratios estimated by the NSS in the 14th to the 17th Rounds and the 19th Round for the rural areas was used to arrive at the estimates of unemployment and under-employment for 1969. The population estimates for 1969 were worked out by computing a simple growth rate from the data available in the Census reports for the years 1961¹⁰ and 1971¹¹. On the basis of these calculations, the rural population figures in 1969 worked out to 422.74 million persons, of whom 170.36 million persons were in the labour force. Those employed, unemployed and under-employed were as follows:—

Labour Force in the Rural Areas in March 1969

Characteristics	(Million Persons)		
	Total	Males	Female
(1)	(2)	(3)	(4)
1. Labour Force . . .	170.36	119.08	51.28
'A' Employed . . .	162.54	115.33	47.21
(i) Fully Employed (Working for more than 42 hours per week)	98.25	78.63	19.62
(ii) Moderately Under-employed (Working for 28—42 hours per week)	31.82	19.34	12.48
(iii) Severely Under-employed (Working for 28 hours or less per week)	30.65	16.12	14.53
(iv) Not recorded . . .	1.82	1.24	0.58
'B' Unemployed . . .	7.82	3.75	4.07

10. *Census of India, 1961, Vol. I, India Part II-B(i) General Economic Tables, page 86.*

11. *Census of India, 1971. Paper I of 1971 Supplement Provisional Population Totals, page 29.*

*Labour Force in the Report Areas
in March 1969---contd.*

	(1)	(2)	(3)	(4)
2. Labour Force Available for Additional work from				
(a) Severely Under-employed (1 'A' (iii))		1.66	0.67	0.99
(b) Moderately Under-employed (1 'A' (ii))		1.20	0.73	0.47
3. Labour Force Requiring Employment*		9.12	4.31	4.81

1.21 On an average, therefore, 7.82 million persons were totally unemployed in the rural areas at the beginning of the Fourth Five Year Plan, of whom 3.75 million were males and 4.07 million females. A further 62.47 million persons had work for less than 42 hours in a week. If the persons who were available for additional work from among those who worked for less than 42 hours are added to the totally unemployed so as to make them fully employed, the number requiring additional jobs would work out to about 9.12 million persons of whom 4.31 million would be males and 4.81 million females. In other words, 9.12 million persons were available for work at the beginning of the Fourth Five Year Plan.

1.22 An alternative method of computing the extent of the labour force requiring employment in the rural areas, on the basis of the above data, was also attempted by the Group. If the number of persons with full employment are taken as those who are working for 42 hours or more per week, it would mean that these persons were working for 273 days in a year, assuming a work day to be of 8 hours duration. The rest of the persons may be considered to be under-employed, if it is presumed that all of them worked for less than 42 hours per week involuntarily and would have taken up additional work if it was available. The Group felt that while the male labour force could be assumed to be involuntarily under-employed, it was quite likely that the bulk of the female labour force would be available for outside employment only for a part of the time. Applying these assumptions, it was

ANNEXURE (2)

*Employment generation during the Fourth
Five Year Plan—Rural Sector*

Heads of development	Construc- tion phase	Contin- uing phase	Produc- tion phase
	(million man-days)		
(1)	(2)	(3)	(4)
Agricultural production programmes, research and education.	468.4	112.6	
Drought prone area programme	168.0		
SFDA/MFAL			45.1
Minor irrigation	2,489.5	798.0	
Soil conservation and land reclamation	2,660.3	25.1	
Area development	64.5	21.1	
Forestry	164.0	15.4	
Animal husbandry	9.4	24.2	
Dairying and milk supply	33.7	32.3	
Fisheries	24.8	27.0	
Cooperation	16.1	23.6	
Community development and Panchayati Raj	27.5	60.0	
Crash Scheme for rural employment	177.5		
Warehousing storage and marketing	14.5	21.2	
Nutrition, food processing and technology			
Buffer stock operations			
Central support to financial institutions			
Major and medium irrigation	869.2	24.8	
Flood control	14.9	6.7	
Rural roads	250.8	202.3	
TOTAL	7,453.1	1,439.4	1,174.0
Employment @ 273 days per year (million persons)	27.30**	5.27	4.30

* The labour force requiring employment includes the number of unemployed (1 'B'), plus the additional man-years that would be required to make those available for additional work 2(a) + (b) fully employed for 42 hours per week. The additional man-years have been computed by assuming that those working for less than 28 hours would need two thirds more employment to make them fully employed and for those with 28-42 hours work, one-sixth more employment. (See also para 1.22)

**As the work during the construction phase would spread over a period of five years, the Working Group had estimated that about one-fourth of the employment would be created in the last year of the Fourth Plan, i.e., 6.85 million man-year units. These, together with 5.27 and 4.30 total to 16.42 million man-year units.

Source : Report of the Working Group on Agriculture, Committee on Unemployment, November 1972, table 2.10.

estimated that the 16.12 million persons in the male labour force working for less than 28 hours in a week would be unemployed for two-thirds of the period of full employment (on the simple assumption that all the persons in this category worked on an average for 14 hours per week). It would be necessary, therefore, to create 10.74 million man-years of extra work to keep all these 16.12 million persons fully employed. Calculations were attempted on similar lines for the 19.34 million male labour force working between 28 and 42 hours per week. These calculations revealed that additional work of 3.22 million man-years would be needed to keep the 19.34 million persons fully employed. Thus, in all, 13.96 million man-years of employment (10.74 + 3.22) would be required to keep all the employed male labour force fully employed. If it is assumed that all the female labour force available for additional work required full time employment, then an extra 0.74 million man-years (0.66 + 0.08) of work would need to be provided. The extent of the labour force requiring employment on these lines would then be 22.52 million man-years (7.82 + 13.96

+0.74) at the beginning of the Fourth Five Year Plan.

1.23 It is necessary to emphasise again that these estimates of rural unemployment in 1969 are subject to all the limitations pointed out by the Dantwala Committee. We have, however, worked out three estimates of the number of persons for whom employment had to be found in 1969 among the rural unemployed and underemployed viz:—

- (a) 7.82 million persons who were totally unemployed;
- (b) 9.12 million persons who were both unemployed and underemployed but available for additional work; and
- (c) 22.52 million persons which would include 9.12 million persons indicated at (b) plus the 13.40 million persons considered as unemployed on the assumption that work would have to be provided to all the male labour force who were working for less than 42 hours per week."

ANNEXURE (3)

Estimates of Labour force requiring employment

(Million Persons)

	1974				1979			
	Total	Males	Females	Labour force requiring full-time employment	Total	Males	Females	Labour force requiring full-time employment
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>I New entrants to the labour force</i>	17.88	12.90	4.98		19.04	13.77	5.27	..
<i>II Labour force requiring employment</i>								
(a) full-time	15.22	12.90	2.32	15.22	16.29	13.77	2.52	16.29
(b) part-time								
(i) for less than 28 hours per week.	1.20		1.20	0.40**	1.27		1.27	0.42
(ii) for 28-42 hours per week	1.40		1.40	1.16**	1.46		1.46	1.23
(c) Total full-time employment				16.78				17.94

*Computed for purposes of full employment on the basis of 1/3 of 42 hours of work per week.

** Computed for purposes of full employment on the basis of 5/6 of 42 hours of work per week.

Source : Report of the Working Group on Agriculture, Committee on Unemployment, November 1972, table 1.3

ANNEXURE (4)

Potential for irrigation works after 1973-74

State	Likely gross cropped area, 1973-1974			Potential for minor irrigation after 1973-74	(5) as percentage of (4)	Potential for major and medium irrigation after 1973-74 ('000 hectares)	(7) as percentage of (4)	(2) + (5) + (7) as percentage of (4)
	irrigated	dry	total					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	4,375	8,840	13,215	2,482	18.78	3,705	28.04	79.92
Assam	808	2,350	3,158	806	25.52	845	26.75	77.86
Bihar	3,891	8,201	12,092	1,910	15.79	5,732	58.15	95.38
Gujarat	1,994	9,254	11,248	782	6.95	1,294	11.50	36.18
Haryana	2,274	2,190	4,464	284	6.36	*	*	*
Jammu & Kashmir	395	499	894	232	25.95	10	1.12	71.25
Kerala	781	2,270	3,051	669	21.93	561	18.38	65.91
Madhya Pradesh	2,276	18,636	20,912	1,529	7.31	4,445	21.30	39.50
Maharashtra	2,242	17,810	20,052	750	3.74	1,553	7.74	22.67
Mysore	1,832	9,179	11,011	1,490	13.53	793	7.20	37.37
Orissa	1,430	6,439	7,869	1,391	17.68	2,216	28.08	63.93
Punjab	4,473	1,464	5,937	473	7.97	1,364*	13.11*	85.26*
Rajasthan	3,054	11,712	14,766	503	3.41	1,991	13.48	37.57
Tamil Nadu	3,649	3,822	7,471	495	6.62	194	2.59	58.68
Uttar Pradesh	10,356	14,801	25,157	4,528	18.00	7,482	29.74	88.91
West Bengal	1,710	5,154	6,864	1,618	23.57	928	13.51	62.00
All India	46,487	1,24,130	1,70,617	20,239	11.86	34,417	20.17	59.28

*The figures for Haryana are included with Punjab.

Source : Report of the Working Group on Agriculture, Committee on Unemployment, November 1972, table 3.3

CHAPTER VIII

INDUSTRY

Industrial development and employment—present position

8.1 In formulating the country's development plan and the industrial policies and programmes in the early Five Year Plans, there was not much emphasis on the creation of large scale job opportunities. The primary focus in the Industrial Policy Resolution, 1956 as well as in the Plans drawn up subsequent thereto has been on accelerating the rate of economic growth and speeding up industrialisation, and in particular, on developing heavy industries and machine making industries. Employment was not considered an objective in itself, though it was assumed that the economic foundations laid through the development of heavy industries would provide increasing opportunities for gainful employment. There was, no doubt, a recognition of the problem of maintaining employment in the village and traditional industries and of expanding, as far as possible, employment opportunities in the small scale sector. In brief, the approach was one of developing the basic industries on the one hand and of maintaining and, if possible, expanding employment opportunities in the village and small scale industries on the other. It was expected that the expansion of the industrial base would provide direct as well as indirect employment opportunities through the expansion of all sectors of the economy.

Industrial growth

8.2 Since the commencement of the planning era in 1951, there was a sustained growth in industrial production at a reasonably good rate upto 1965, while in the more recent years there were considerable fluctuations in the growth of industrial production. Thus the index of industrial production in the organised sector increased from 100 in 1951 to 260.9 in 1965, i.e. roughly at a compound rate of 6.6 per cent, as will be seen from the table at Annexure (1). A sharp deterioration took place in 1966 and for the first time since 1951 there was an absolute decline in industrial production. The situation was no better in 1967. The industrial production, however, showed a

recovery during 1968 with a rise of 6.4 per cent over the previous year. This trend was maintained in 1969 with a rise of 7.1 per cent. The rate of growth, however, dropped to 4.8 per cent in 1970 and 3 per cent in 1971. The first ten months (January to October) of 1972 saw some signs of recovery when the index of industrial production registered an increase of about 7.2 per cent over the corresponding period of 1971.

8.3 This period also witnessed a significant and rapid growth of modern small scale industries. The small scale manufacturing sector today occupies a prominent place in the industrial economy of the country and contributes well over one-third of the total industrial production. More important still, this sector has achieved a remarkable degree of sophistication and technical competence in the range and variety of the goods produced. The vitality and strength of this sector is now well-established in so far as it is able to compete successfully with the large scale sector without any special measures of protection from government. While the absence of precise and up-to-date statistical data continues to be a serious handicap in assessing more accurately the progress of the small scale sector, there are indications which suggest that this sector probably grew at an annual rate of 7 to 8 per cent upto 1965. The fast growth of this sector is evident from the fact that during the period from 1960 to 1965 the number of small factory establishments increased by 28 per cent, their investment in fixed assets recorded an increase of about 62 per cent while the employment in this sector, its gross output and the net value added by manufacture rose by about 20 per cent, 70 per cent and 50 per cent respectively.*

8.4 Apart from the the significant increases in output in the organised and modern small scale sectors, there has been considerable transformation of the industrial structure during this period. The industrial base has been well broadened and strengthened, industrial production diversified and substantial capacity

*Development Commissioner, Small Scale Industries, Ministry of Industrial Development, Govt. of India, New Delhi.

created in the more sophisticated industries like mining and metallurgy, machinery, engineering goods, fuels, chemicals, fertilizers, etc. Simultaneously, there has been a significant growth in the production of a vast range of consumer goods. The entrepreneurial base has also been widened by the entry of a number of enterprising and educated young men, particularly those with technical qualification, and a healthy psychological change has been brought about in the attitude of educated persons to industrial enterprise. The technological and scientific level has vastly improved and managerial capabilities developed. More recently, considerable competence has also been created in the fields of industrial design and engineering with the setting up of a number of consultancy firms capable of undertaking, mainly with the aid and utilization of domestic expertise, the establishment of new projects in the fields of steel, chemicals, metallurgy, engineering, etc. In a number of industrial products, the levels of efficiency and quality are broadly comparable with international standards, leading to the emergence of a growing export sector in non-traditional commodities like iron and steel, engineering goods, etc.

8.5 Another significant development during this period has been the rapid growth of the public sector to a commanding position in the industrial sector, both as regards the volume of investment and the variety of products. There has also been a deliberate attempt to foster industrial development on a more dispersed basis and to diffuse industrial activity more widely over the country. While some success has, no doubt, been achieved in this direction, it has not been altogether upto the expectations.

8.6 The rapid industrial growth has, however, contributed in some measure to the concentration of economic power. Several steps have been taken in recent years to counter this trend. The Revised Industrial Licensing Policy (1970), and its recent amendment in February, 1973, the Monopolies and Restrictive Trade Practices Act and the recent amendments to the Companies Act are some of the steps taken by the Government with this objective in view. The control over the monetary resources of the community through the nationalisation of 14 leading banks bringing the instruments of modern banking credit and finance under public ownership, is also intended to prevent the concentration of economic power in a few hands.

8.7 A synoptic view of the growth and diversification of industrial production achieved during this period can be had from the statistics given in the table at Annexure (2). The table at Annexure (3) gives the year-wise data relating to the step-up of industrial investment in the public sector while the table at Annexure (4) gives the figures of annual increase in the gross fixed assets of companies in the private sector. The steady growth in industrial investment which was witnessed upto the end of the Third Plan has, however, not been maintained during the subsequent period. In fact there has been a substantial decline in this respect and the peak level of investment in the public sector achieved during the last year of the Third Five Year Plan was not reached again till 1970-71.

Industrial employment

8.8 Precise data about the employment generated through the programmes of industrial development over the Five Year Plans are not available. However, some rough estimates of the additional employment likely to be generated in a particular Plan period were given in the earlier Plan documents. The Committee of Experts on Unemployment Estimates (the Dantwala Committee) observed that the data available to the Planning Commission for estimating unemployment and under-employment were not precise and adequate. Regarding the estimation of employment potential generated during a Plan period, the Committee observed: "Reliable data are necessary on the additional employment per unit of investment and/or the increase in output in different sectors for making such estimates. The relevant ratio not only differ from industry to industry but are seldom the same at the margin as on the average for the same industry. The changes in technology and organisation also necessitate changes in the co-efficients". In view of these observations, no estimates of the backlog of unemployment or of the job opportunities which might be generated by the Plan programmes are given in the Fourth Plan document. However, an idea of the additional employment opportunities generated as a result of planned industrial investments could be had from the figures of the estimated average daily employment in working factories given in their annual publication "Indian Labour Statistics", by the Labour Bureau, Simla (Deptt. of Labour and Employment). These figures for the period from 1951 to 1970 are given in the table at Annexure (5).

8.9 The rates of growth of industrial production and of employment in the factory sector in the years from 1951 to 1971 are given in the table at Annexure (6). It would be seen that while employment in the factory sector increased at a compound rate of about 3 per cent per annum during the period from 1951 to 1970, industrial production during the same period expanded by about 6 per cent per year, which is about twice the rate of growth in employment. It is thus clear that creation of job opportunities in this sector has lagged far behind the increase in production and in spite of planned development, employment generation has not been commensurate with the increasing demand for additional employment opportunities. The rate of industrial growth has not been high enough to bring about a significant increase in employment. Had the industrial growth been faster during the period under review, the rate of growth of employment would have been, it would be a safe guess, of a higher order.

8.10 It is generally assumed that the expansion of the industrial base will create large industrial employment opportunities through the expansion of industries in general. It is very difficult to assess in concrete terms to what extent this assumption is correct. Undoubtedly, the policies adopted with regard to the village and cottage industries have assisted in maintaining the level of employment in these traditional industries while those relating to modern small scale industries have generated sizeable employment opportunities in that sector. However, the total addition to the employment in these sectors over the last two decades was not substantially large. According to certain estimates, the modern small scale sector (the size of which was insignificant prior to 1950 and which has mainly developed since then), currently provides employment of the order of about 2 million* in small establishments outside the factory sector. During the period from 1951 to 1970, employment in the factory sector increased from 2.9 to 4.9 million, thus showing an addition of 2 million. Assuming that there has been no significant increase in employment in the traditional village and cottage industries, where the primary emphasis has been on maintaining rather than increasing employment, it may reasonably be inferred that the industrial sector as a whole provided additional employment of the order of 4 million only during the two decades from 1951 to 1970. The growth of the factory sector has,

however, indirectly generated substantial employment in the primary and tertiary sectors.

Employment orientation of industrial programmes

8.11 Though the contribution of the industrial sector to the creation of direct employment is limited, yet its multiplier effects on other sectors, in which increasing numbers of labour force come to be employed in activities like agriculture, trade, marketing, commerce, banking, etc., are of considerable significance. For generating larger employment opportunities, both direct and indirect, it would be necessary (i) to accelerate the rate of industrial growth and (ii) to evolve a pattern of industries which will have the maximum employment potential not only in the manufacturing sector itself but also in other sectors of the economy through its multiplier effects on them.

8.12 Larger employment opportunities in the industrial sector could be generated in the short-term by accelerating the rate of industrial growth through increased production from the existing unused capacities as well as through fresh production from new investments. The growth of industrial production has been held back in part by the existence of under-utilised capacity in a number of industries. Some of the important factors inhibiting the fuller utilisation of capacity have been the inadequate supply of critical raw materials, the shortage of power, transport bottlenecks, the depressed demand for certain items, unsatisfactory industrial relations, etc. Besides, fresh industrial investment has slowed down in recent years partly on account of the hesitancy shown by government in taking long-term investment decisions during the three Annual Plans (1966-69). There have been indications in later years of some improvement in the pace of investment intentions as shown by the data on the industrial licences issued, the licences granted for the import of capital goods, the volume of capital issues authorised, the credit advanced to the private corporate sector by the term-lending institutions, etc. The number of industrial licences issued increased from 219 in 1969-70 to 363 in 1970-71 and to 625 in 1971-72. The value of licences issued for the import of capital goods increased from Rs. 73 crores in 1969-70 to Rs. 127 crores in 1970-71 and to Rs. 250 crores in 1971-72. Besides, the sanctions for capital issues by companies in the private sector increased from Rs. 113 crores

*Development Commissioner, Small Scale Industries, Ministry of Industrial Development, Government of India, New Delhi.

in 1970-71 to Rs. 182 crores in 1971-72*. The amounts of loans sanctioned by the term-lending institutions increased from Rs. 154 crores in 1969-70 to Rs. 226 crores in 1970-71 and to Rs. 307 crores in 1971-72**. The actual investments in major industries in the first three years of the Fourth Plan period have, however, been below expectations as shown in the table at Annexure (7).

8.13 In the long term, the employment potential in the industrial sector could be increased by reshaping the pattern and structure of industrial development. An analysis of the contribution of the large and small scale sectors to employment generated would give an idea of their respective potentials. According to the data from the Annual Survey of Industries, 1966@, the fixed capital investment per worker in the small scale sector was Rs. 2,641 as against Rs. 17,744 in the large scale sector. The World Bank has, in its recent Report on Small Scale Industry in India (1972) also brought out the fact that the ratio of fixed capital to labour is much lower in the small scale sector as compared to the large scale sector. The ratio of value added by manufacture to investment is also much higher in the small scale sector and the lower capital cost more than offsets the lower output per worker so that the production per unit of labour in this sector is, on the whole, found to be high in many small scale industries. A reorientation of the industrial development programmes would, therefore, call for an accelerated development of the less capital-intensive small scale industries as far as it is technologically feasible. However, in the case of certain industries, production will necessarily have to be organised in the large scale sector, e.g. iron and steel, petro-chemicals, fertilizers, heavy electrical equipment, heavy machinery, etc.

8.14 Further orientation towards employment could be given by developing selected industries for which the necessary expertise, resources, etc., are indigenously available. A policy of creating deliberate imbalances in favour of industries based on, or catering to the requirements of employment oriented programmes, such as roads, rural electrification, minor irrigation and housing would also create larger employment opportunities.

8.15 Apart from the appropriate scale of operation and the right type of industry-mix larger employment opportunities could also be generated by adopting the types of technologies suitable for our labour-abundant economy.

This would involve a great deal of scientific research and inventive skill and also call for sustained effort. Since the development of the appropriate technologies in various items may take time, care should be taken to see that the modern type of technology for any industry existing in other countries is not imported blindly without reference to Indian conditions. In the selection of technology or in the modernisation of industry, the use of highly sophisticated or automated machinery should be discouraged. The industrial policy has to be deliberately reoriented to promote the development of those industries which can produce the goods needed by making the maximum use of labour rather than by building up a highly mechanised industrial structure through the import of the latest technology of the time.

8.16 Although the need for the development of backward areas is generally recognised, sustained and adequate efforts through the regulatory powers in the hands of the government do not appear to have been made until recently to ensure that industries are dispersed away from the metropolitan areas or other places of concentration. Such dispersal is important mainly from the point of view of the removal of regional imbalances and the wider diffusion of employment opportunities, besides being desirable from the point of view of preventing excessive urban congestion and the resulting environmental pollution. Besides, the establishment of new industrial units and the accompanying expansion of activities in the tertiary sector would create greater employment opportunities in the less developed areas. It is, therefore, necessary that suitable measures be taken to build up infrastructural facilities needed for industrial growth in these areas and to ensure that, wherever possible, industrial units are set up at locations away from the highly developed areas. This would require strict regulation of further industrial development of metropolitan areas so that conglomeration does not increase further in such areas, and also the simultaneous development of other areas, particularly backward ones. The location of large industrial units in a backward area may not by itself generate significant employment unless a systematic attempt is made side by side to promote the setting up of a large number of ancillary units around the big industrial units. The example of many industries in Japan, which have established large assembly plants right on the fringe of rural areas, while ancillary units in the small scale sector are set up in the village

*Economic Survey (Ministry of Finance), 1971-72; Planning Commission, Government of India.

** Economic Survey (Ministry of Finance), 1972-73.

@ Central Statistical Organisation, Government of India.

and provided facilities by large units of such industries is relevant in this connection. In India there is still far too much of reliance on centralised production and assembly, and sufficient advantage has not been taken of ancillary industries involving new skills which can be established in the semi-urban or rural areas, provided that infrastructural facilities, like electricity, transport and communications are developed in these areas. We feel that the development of ancillary units should be regarded as an important instrument for the creation of new employment opportunities. In view of the slow pace of progress in this direction so far, the programme of ancillary development should be given a big push by making it obligatory for the bigger units both in the public and the private sectors to promote the development of ancillary industries by farming out the production of components, parts, sub-assemblies, etc. which can be undertaken by small scale units.

8.17 There are several traditional village and small industries which today provide a large volume of employment. The continued functioning at the existing levels of these industries is of critical importance from the point of view of preventing the accentuation of the present unemployment situation. Some measures have already been adopted for providing support to some of these industries, e.g. khadi, village industries, handlooms, handicrafts, coir, sericulture, etc. It would be necessary to adopt similar measures for other traditional industries also so as to maintain their present level of employment. At the same time steps will have to be taken to make these industries economically viable over a reasonable period of time by upgrading their technology, improving their marketability through the diversification of their products and improvement of designs and giving them necessary institutional support.

8.18 The existence of sick and closed units is another problem needing attention for the maintenance of the existing level of employment. The difficulties of such units are generally due to two main reasons. Firstly, a number of traditional large scale industries like textiles, sugar, collieries, foundries, structurals, etc. have suffered from long periods of neglect and the modernisation of their plant and machinery is now called for. In the small scale sector also there are a number of industries which are in need of modernisation. In this respect, particular mention may be made of small foundries, machine tools factories, fabrication workshops, etc. Secondly, there are several industries suffering from managerial, financial and allied problems. It would,

therefore, be necessary to take suitable measures to solve the technological, financial and managerial problems of such units in both the large and small scale sectors, in order to maintain the health of these industries as well as their existing levels of employment.

8.19 It has to be recognised, however, that in spite of the best efforts, the industrial sector is not likely in the foreseeable future to absorb any significant portion of the backlog of unemployment in the country. Steps will, therefore, have to be taken to provide employment to a large number of the unemployed persons in other activities at least for a transitional period, for instance, on rural works like road construction, minor irrigation and house building. Such employment will create a certain amount of purchasing power which will generate more demand for a number of industrial products and thus give an impetus to the growth of some industries and also to industrial growth in general in due course. As a result of this, a number of persons, who can at present be provided with no more than short-term employment in the rural works, would be gradually absorbed in more permanent employment in the growing industrial sector and also in the tertiary sector which will grow along with the industrial sector. To facilitate this process of absorption it will also be necessary to impart training in crafts and services to some of the unemployed as well as those employed under such short term schemes and to upgrade the skills of others in suitable cases.

8.20 The strategy for the employment-orientation of industrial programmes would necessitate acceleration of the rate of industrial growth for which some suggestions have been given in the previous paragraphs. This would demand the creation of conditions favourable to a rapid increase in industrial production and new investment.

Fuller utilisation of installed capacity

8.21 There is currently considerable unutilised capacity in both the public and private sector undertakings. The public sector steel plants have been operating at much below their rated capacity, the degree of capacity utilisation being 60 per cent in 1970-71, 59 per cent in 1971-72 and 67% in 1972-73. The Heavy Engineering Corporation was working till recently at less than 30 per cent of its installed capacity though there has been, we understand, some improvement in its working during 1972-73. Barring a few, the fertilizer projects of the Fertilizer Corporation of India have not reached the degree of performance that could be expected of them. Some drug

projects and the photo-film factory are some of the other public sector units which are working much below their rated capacity. The industries in the private sector also suffer from under-utilisation to a significant extent. The affected industries include railway wagons, commercial vehicles, agricultural tractors and industrial machinery, particularly machinery for cement and paper and pulp. The extent of utilisation in 1972 was 29 per cent in the railway wagons industry, 43 per cent in the agricultural tractor industry, 52 per cent in paper and pulp machinery and only 8 per cent in cement machinery. Better utilisation of installed capacity would help accelerate the rate of industrial production with beneficial effects on employment and concomitant multiplier effects on other sector of the economy.

8.22 In this connection, the Fourth Plan Mid-term Appraisal has pointed out that in the short-term, measures will have to be taken to obtain maximum output from the existing capacities in both the large scale and small scale sectors. To achieve this end, action has to be taken in several directions.

8.23 In the recent past, the shortage of raw materials primarily affected engineering and other industries based on steel, non-ferrous metals and plastics and those based on agricultural raw materials like cotton, oilseeds, sugarcane, jute, etc. This problem affects both the large scale and small scale units. There are some complaints that the procedures for the allocation of scarce raw materials, both imported and indigenous, are not satisfactory or efficient and that they tend to discriminate against the small scale sector in the supply of some materials. During the course of its visits to various states in the country, the Committee had an opportunity of visiting a number of industrial estates having medium and small scale units and having discussions with a number of small entrepreneurs and others engaged in running those industries. The general impression of the Committee was that much effort and initiative was being rendered infructuous and production was suffering in many of these units because of the short or irregular supply of basic raw materials, particularly steel, certain non-ferrous metals and items like polythelene. This not only affected the current production but was bound to create disappointment and frustration and to act as a disincentive to prospective entrepreneurs and self-employed persons desirous of entering industrial activities. The shortages in these critical raw materials also have a considerable spread-effect over the entire economy leading to slackening in industrial production and rate

of industrial growth, investment in the economy, employment and exports, etc.

8.24 Certain steps have already been taken by the government, we understand, to improve the supply of steel non-ferrous metals, etc. through larger imports and better distribution. In order to ensure that the available stocks of steel reach the actual users to the maximum possible extent and without delay, the distribution procedures have been streamlined and tightened up. Certain amendments have been made to the Iron and Steel Control Order, so that the use of steel for purposes other than what has been stated in the application forms would be a violation of that Order and would, therefore, be punishable under the Essential Commodities Act. It has also been decided to set up a 'Steel Bank' to meet from its ready stocks the demands of private and public sector projects for scarce categories of steel against valid licences held by them. A series of measures have been initiated to increase the production of steel from the existing plants and to establish additional capacity. Crash programmes have also been launched to achieve self-sufficiency in raw cotton, oilseeds and jute during the next two or three years.

8.25 While these measures may in the long-run bring about larger domestic supplies of essential raw materials required for various industries, there is an imperative need to keep a careful watch in regard to the overall supply/demand position of these critical raw materials over the next few years and to ensure that realistic import programmes are drawn up well in time to maintain their satisfactory availability in accordance with the rising level of industrial production. Timely and vigorous steps also need to be taken to augment the indigenous production of these materials by establishing additional capacity to the extent necessary. In this context, there is also a great need for taking suitable steps to prevent the mis-utilisation or diversion of such essential and scarce materials as steel and non-ferrous metals for the production of luxury goods and non-essential items like steel furniture, prestigious buildings, etc., and to conserve the available supplies for maintaining as well as increasing the production of essential items.

8.26 Industrial production in the recent past has also been affected by the shortage of power which has been growing progressively more acute. In part, this shortage is due to the delays in the commissioning of major power projects; to some extent it is the result of an inefficient utilisation of the existing

power capacity for a variety of reasons. In the short-term, every effort will need to be made for better utilisation of the existing power capacity through proper maintenance, reduction in transmission losses and strengthening of the transmission system so as to facilitate the transfer of energy from surplus to deficit regions. A crash programme on these lines will need to be drawn up and implemented. In order to overcome the present acute shortage of power, we understand, the Government of India has recently relaxed the general ban on the import of power equipment and allowed the import of diesel and electric generating sets. In the long term, power capacity should be substantially augmented by suitable stages somewhat ahead of the growing demand and adequate arrangements made for an integrated operation of the power system by establishing regional load despatch stations. The importance of an adequate, steady and reliable power supply can hardly be over-emphasised in the context of industrial development and the economic growth of the country.

8.27 The output in many industries has also been adversely affected in the past owing to transport bottlenecks. The somewhat ironical situation of an unutilised capacity in the coal industry existing simultaneously with a critical shortage of coal for consumers in some areas, is a telling commentary on the present inadequacies of the transport system. This situation has arisen, we understand, mainly because of the shortage of railway wagons needed for lifting coal. The availability of wagons is also affected by the unduly long time taken in unloading coal at rail-heads as some of the parties may find the payment of demurrage charges to be a cheaper proposition than the actual cost of storage. Production in the industrial field generally and in industries like fertilizers, cement, etc. in particular would have been higher had there been no wagon supply problems. The current deficiencies in this regard would need to be critically examined and remedial measures taken urgently. From the long-term point of view, transport planning would have to be more closely dovetailed and co-ordinated with the location of industrial projects and their transport needs.

8.28 Lack of effective demand has been another important factor contributing to the under-utilisation of installed capacity. It seems desirable that comprehensive studies of industries affected by demand constraints should be undertaken in order to identify the factors responsible for the current situation, to examine the possibilities of diversification and to work out integrated industry wise pro-

grammes to remove the existing malaise. Such studies of large scale industries may be undertaken by the ministries concerned, while those of small scale industries may be taken up by the Small Scale Industries Development Organisation.

8.29 An improvement in industrial relations could also contribute to better utilisation of installed capacity. The loss of production due to industrial unrest adversely affects the national product and incomes which are the potential source of saving and investment which in turn generate additional employment opportunities. Though there has been some improvement recently in this respect, the situation still continues to cause concern. We feel that the pressing need for attaining an adequate pace of economic development demands a more harmonious relationship between management and labour. This would, however, be feasible only in an atmosphere of confidence and commitment to achieving higher levels of production and with the cooperation of both the employers and the workers in the public as well as private sectors. One of the factors affecting industrial relations in the past has been the erosion of real wages through a steep rise in prices. A continuous spiralling of prices brings in its train a host of problems affecting the vitality and resilience of the country's economy. Rising prices affect current production as well as the future growth of production and have an adverse effect on stability in investment decisions. It is, therefore, of vital importance to stabilise prices or at least to slow down their high rate of increase. Another step in this direction may be to link the wages with the price level and with productivity. It may also be necessary to consider whether a better and more equitable allocation or re-allocation of surpluses among the various factors of production is called for with a view to improving industrial relations. The development of better human relations at all levels in industry would also be a contributing factor in the better utilisation of capacity and in increased production. No efforts should therefore, be spared to bring about conditions conducive to more harmonious industrial relations. For the development and maintenance of such relations, it is essential that all closures, lay-offs and lock-outs should be avoided as they cause wide-spread suffering and strained relations between the management and labour. It is desirable, therefore, that suitable working arrangements be devised in time to avoid situations leading to lock-outs, etc. as far as possible, and all efforts made to settle industrial disputes in an amicable and expeditious manner.

8.30 The activation of the inbuilt capacity and multiple-shift operation could make a sizeable contribution to additional production and employment. For fuller utilisation of installed capacity, government decided in January, 1972, to give a blanket permission to 54 critical industries to expand and diversify their production to the extent of about 100 per cent above their licensed capacity. The important industries given this permission include agricultural tractors and machinery, fertilizers, basic metals, iron and steel, machine tools, cement, paper and newsprint, jute and cotton textiles, etc. The number of industries allowed this relaxation was subsequently increased to 65. The additional output is to be allowed subject to the following conditions:—

- (i) Wherever the licence issued to a party mentioned a certain capacity specifically on the basis of one or two shift working, the party would be allowed an increase in its licensed capacity on the basis of the maximum utilisation of plant and machinery; and
- (ii) In other cases the present concession of additional production of upto 25 per cent of licensed capacity would be enhanced to 100 per cent.

This relaxation was not, however, to apply to the production of goods reserved exclusively for the small sector nor was it to apply automatically to the companies belonging to the large industrial houses or to foreign companies. Such companies could make an application asking for permission to increase production. Individual cases of these applications are being considered on merits by a task force set up by the Ministry of Industrial Development.

8.31 The additional production created by this measure has still to be assessed, but it seems that it is not likely to be very significant in view of the fact that the regulatory constraints on the installation of capital equipment and machinery even in the case of these industries may dilute the effectiveness of this policy. Moreover, the existing system regarding the allocation of additional quantities of scarce raw materials for enhanced production would continue to be operative. If the policy of relaxation for additional production is supported by the allocation of adequate supplies of raw materials and by the relaxation of existing constraints on the installation of such balancing equipment and machinery as may

be unavoidably necessary, it may become a catalyst for a sizeable increase in production and employment. We would, therefore, suggest that the question of allocating adequate raw materials to, and of relaxing the existing constraints, if any, on the installation of necessary balancing equipment in respect of, the units in such industries should be considered so that this policy may become really effective in increasing production and employment. We would further suggest that the question of extending this relaxation to other industries also should be considered, having regard to the principles underlying the grant of such concessions.

8.32 The under-utilisation of capacity has assumed serious dimensions in certain industries in the country. In some industries, e.g., engineering and metals, the capacity utilisation is stated to be as low as 40 to 50 per cent. Single shift working is the rule in the engineering industry while some other industries like cotton textiles work, on an average, more than two shifts. For the purpose of increasing both production and employment, two and three-shift working would normally be preferable to the expansion or creation of new capacity which would be quite costly in a capital-short economy. The unutilised capacity not only prevents increase in employment with the existing capital outlay but also inhibits additional production thereby leading to a rise in the unit cost of production and impairment of the competitive position of industries in the world markets. Some estimates* indicate that if capacity utilisation were to be 80 to 90 per cent in certain industries, e.g., chemicals, production and employment could be increased by 49 to 67 per cent on the basis of the existing shift system and by 199 to 237 per cent on what could be regarded as a desirable shift basis. In view of all these considerations and in order to achieve higher production and employment with the same capital outlay, industries in general should be encouraged to take to two or three-shift working. We have dealt with some other aspects of this issue earlier in our chapter on "Strategies For Employment Generation".

8.33 We feel that in a capital-short economy, once industrial capacity has been created, whether authorised or unauthorised, it should be fully utilised to maximise production and employment. This does not imply that the breaches of law or illegal actions taken by the persons concerned should be condoned. The point we would like to emphasise is that

*The World Employment Programme, ILO, 1971. Page 38.

while offences against the law should be suitably dealt with, the nation should not deprive itself of the benefits of investments already made.

8.34 It is likely that the steps taken in respect of the essential inputs, balancing equipment, industrial relations, public investments, etc., might result in higher utilisation of capacity in both the public and private sectors. However, there is no regular arrangement at present for timely or efficient collection and monitoring of information about the factors impeding the fuller utilisation of installed capacity. This results in an avoidable loss of production and employment on account of delays in reacting to the developing situation and taking timely remedial measures. We consider that the concerned Central ministries, departments and authorities should review the existing machinery for collecting, collating and analysing information about the critical inputs, the state of maintenance and other factors so as to effect improvements that would make the flow and analysis of such information regular and timely. Proper coordination would need to be effected through inter-ministerial groups or in other ways to see that the information collected is used for monitoring the situation and for taking advance action to prevent the emergence of under-utilisation of capacity. The composition of any such group should ensure that the officers of the concerned ministries/departments directly responsible for implementing the decisions that may be taken by the group are included in it. If quick results are to be achieved, it would be necessary to provide for special allocation of resources like raw materials and for simplified and streamlined practices and procedures.

Promotion of new industrial investments

8.35 Apart from fuller utilisation of the installed capacity, larger employment opportunities in the long-term could be generated by a considerable step-up in the rate of new industrial investment, both in the large scale and small scale sectors. Suitable measures for quickening the process would have to be taken on an urgent basis and action in this regard initiated in many directions.

8.36 The public sector is assuming an increasing role in terms of new investments in the industry and minerals sector. The success of the industrial development programmes, therefore, depends greatly on strengthening the capabilities of public sector organisations to shoulder the larger responsibilities that devolve on them. In many of the key industries

not only does the public sector occupy a dominant position but further expansion in these industries in future will be mainly in the public sector. Production and expansion of these industries have a considerable multiplier effect on the development of numerous other ancillary industries as well as on the growth of other sectors of the economy. At the same time, these industries present a number of complicated problems in regard to technology, scale of operations and levels of investment. They also require a well-coordinated approach in implementation on account of the inter-sectoral linkages. The lack of adequate preparedness to deal effectively with these problems has been, to a large extent, responsible for the relatively slow rate of investment in the public sector in the initial years of the Fourth Plan. As a consequence, as will be seen from the table at Annexure (7), the expenditure in the first three years of the Fourth Plan period on many important industrial projects has been substantially below expectations.

8.37 In order to avoid repetition of such a situation in future, we are of the view that advance preparatory action and planning with detailed cost estimates and time schedules and material procurement for construction should be undertaken urgently for new projects likely to be included in Fifth Plan. Further, it will also be necessary to have adequate arrangements within the projects and in the administrative ministries to monitor the progress in the implementation of projects and make suitable adjustments, if necessary, in their further time-schedules and operation schedules, as well as take timely corrective action in advance of difficulties likely to arise. This would be particularly relevant to industries like steel, power, petro-chemicals, iron ore development, etc., which involve inter-sectoral inter-dependence. Such strengthening of the public sector undertakings and of the consulting agencies, as may be required for this purpose, will generate additional employment opportunities, particularly for highly qualified technical personnel.

The setting up of the Public Investment Board recently is a step in the right direction, and it is to be hoped that the new procedures will be worked in a manner calculated to speed up investments. The broad functions of this Board will be: (i) examination of the broad contours of an investment proposal in the project formulation stage based on which a decision to prepare the feasibility report would be taken; (ii) taking investment decisions on proposals for public investment to produce goods and to provide services; and

(ii) consideration of proposals for revision of cost estimates which exceed those approved at the time of investment decisions.

8.38 The investment lags are not confined to the public sector only. Though precise and upto-date figures about new investment in the private sector are not available, there are indications to suggest that the level of investment in the private sector has also remained substantially below the projections in the Fourth Plan. This was perhaps due to the absence of clear-cut and satisfactory alternatives for providing investments in sectors which are no longer open to larger industrial houses and foreign companies. Vigorous steps need to be taken to promote the entry of new entrepreneurs in a big way in these areas.

8.39 The climate for accelerated private investment could be further improved if the industrial licensing policy and the role to be assigned to the public sector for a particular Plan period are announced well in advance and these remain stable over the period. Frequent changes in policy make for instability in investment decisions by the entrepreneur; they also discourage the private investor from investing in industrial enterprises. The lack of a proper investment climate for industries would seriously impede the future industrial development of the country. The absence of openings for sound investments for industries and of adequate return on them tends to encourage the misuse of savings in speculative activities in land and commodities like bullion and in the hoarding of other scarce commodities and raw materials, thereby bringing immense suffering and hardship to the community in general and also affecting economic growth.

8.40 Not only should increasing avenues for investment in industries be provided but a climate of confidence for the private investor also needs to be created. The frequent changes in policies, and certain fiscal and policy measures have in the past had an adverse effect on the psychology of the investor which tends to sap his confidence and thus had a deleterious effect on industrial investment. It is desirable that it should be made worth-while for the people, particularly the small investor to prefer investment in industrial securities to speculating in land values or indulging in hoarding of bullion or other scarce commodities. For this purpose a number of measures can be taken. For example, the rate of return on industrial securities should be made sufficiently attractive to

induce a larger section of the community, particularly the small investor, to invest in them. Similarly, the people's capacity to save and invest should be raised and tax concessions, etc., for new investment, like those given in some industrially advanced countries, should also be introduced. In order to provide incentive for investment in industries for the people, particularly the small investors, the introduction of a suitable scheme of tax concessions to persons investing in the equity capital of new industries upto a certain specified limit should be considered. In this connection it may be mentioned that a scheme of tax-free tax credit certificates was introduced in the country in 1965 to provide an incentive for industrial investment in new equity shares. This was, however, withdrawn in 1970. We would suggest that the introduction of a similar scheme may be again considered. Similarly, it would be desirable to consider the exemption of long-term capital gains from taxation if the proceeds are invested in a new industrial undertaking. We have referred to this point in para 6.41 of our Report. The industrial securities suffer from some other disabilities also; for example, the margins demanded by commercial banks on advances against them are high (sometimes up to 50 per cent), so that the capacity of their holders to obtain advances against their security is seriously reduced. There is a need for a fresh examination of these handicaps with a view to their relaxation or removal.

Modification of industrial licensing policy and procedures

8.41 The emerging demands for a variety of industrial products, in many of which scarcities are acutely felt, hold out the prospect of a favourable investment climate for the creation of additional capacity. It is, therefore necessary to streamline the policies and procedures connected with the approval of industrial projects in a manner which would speed up decision making and facilitate the exploitation of opportunities for new industrial investment to the full extent. Consequent on the recommendations of the Industrial Licensing Policy Enquiry Committee (the Dutt Committee), the revised licensing policy referred to in para 8.6 was announced in February, 1970. While the policy represented an attempt to enlarge and diversify the entrepreneurial base and to set severe limitations on the larger industrial houses and foreign companies with a view to preventing the concentration of economic power, several difficulties have been experienced in the actual working of this industrial licensing policy. As a consequence of the

liberalisation, the number of letters of intent and licences issued has substantially increased. However, the absence of a selective approach in regard to approvals and the lack of adequate attention to the broader technoeconomic considerations relating to different industries appear to have resulted in a large number of such letters of intent not fructifying into actual investment. The large number of applications received in recent years, following the liberalisation of the licensing policy, has also imposed burdens on the administration. In spite of the measures taken to speed up the consideration of applications for industrial licences, there is still a large pendency of such applications.

8.42 Considering the disabilities from which the new and medium entrepreneurs suffer, more positive steps should, in our view, be taken to assist them in a meaningful manner so that they may be enabled to implement the new industrial licences and bring new industrial capacity in use. In this matter we feel that the public financial institutions have a considerable role to play and a fresh orientation would probably need to be given to their programmes and procedures. They should strengthen their capabilities for providing assistance to the new and medium entrepreneurs in various forms, for example, by preparing feasibility reports and making available other consultancy services including trouble-shooting, apart from giving financial assistance. In this respect it might be useful if a study is undertaken about the number of agencies or organisations that the entrepreneur is required to approach and the various steps that he has to take before his industrial unit comes into production. On the basis of the results of such study, steps could be taken to improve the availability of necessary facilities and to coordinate and streamline the procedures of various agencies involved.

8.43 At the same time, a strategy for utilising the substantial financial and managerial resources existing in the larger industrial houses for a faster industrial growth in a manner calculated to sub-serve the overall national interest also needs to be evolved.

8.44 The experience over the last three years of working of the Industrial Licensing Policy of 18th February, 1970 which has been referred to in para 8.41 had indicated the need for certain adjustments in this policy in order to speed up industrial investment, production and employment. The Government of India have accordingly announced a revised Industrial Licensing Policy on 2nd Febru-

ary, 1973. The main features of this Policy are as follows:—

- (i) According to the Industrial Licensing Policy of 1970, industrial undertakings belonging to the larger industrial houses with assets exceeding Rs. 35 crores were allowed to participate only in the core and heavy investment sectors, leaving the opportunities in the remaining sectors primarily to new and medium entrepreneurs. According to the new policy, the definition of larger industrial houses for the purpose of the licensing restrictions has been modified so as to bring it in line with the definition adopted in the Monopolies and Restrictive Trade Practices Act, 1969. The definition adopted in the Act is on the basis of a lower limit of assets, including those of inter-connected undertakings, of not less than Rs. 20 crores.
- (ii) The list of core and heavy investment industries has also been enlarged and includes industries having direct linkages with such core industries and industries with a long-term export potential. A consolidated list of such industries is attached at Annexure (8). The larger industrial houses and foreign concerns will now be eligible to apply for licences, along with other applicants, to establish industries included in this list provided that the item of manufacture is not one that is reserved for production in the public sector or in the small scale sector.
- (iii) The exemption from licensing provisions, which now applies to substantial expansion and new undertakings with investment upto Rs. 1 crore by way of fixed assets in land, buildings and machinery will be continued. This exemption will not apply to larger industrial houses and dominant undertakings as defined in the Monopolies and Restrictive Trade Practices Act and to foreign companies and also to the existing licensed or registered undertakings having fixed assets exceeding Rs. 5 crores.
- (iv) A few joint sector units have already been established in association with private parties, through equity participation either directly by the Cen-

tral Government and/or state governments or by the state industrial development corporations. More such units may also be set up to help meet the industrial production targets of the Plan. It is also intended that the joint sector would be used as a promotional instrument for development of priority industries by new and medium entrepreneurs with the participation of the state governments who would provide the necessary guidance in developing such industries.

- (v) Government's policy will continue to be to encourage competent small and medium entrepreneurs in all industries including those mentioned in Annexure (8). Such entrepreneurs will be preferred *vis-a-vis* the larger industrial houses and foreign companies. The licensing policy will seek to promote production of ancillaries wherever feasible and appropriate in the medium or small scale sectors. Cooperatives and small and medium entrepreneurs will be encouraged to participate in the production of mass consumption goods with the public sector also taking an increasing role.
- (vi) The existing policy of reservation for the small scale sector will be continued and the area of such reservation will be extended. The policy of encouragement to the co-operative sector will receive special emphasis in industries which process agricultural raw materials, such as sugarcane, jute and cotton, or which produce agricultural inputs like fertilizers.

8.45 The implementation of this new licensing policy will, it is hoped, improve the investment climate and stimulate growth in all industries of importance to the national economy. It is expected that detailed guidelines for setting up industries in the joint sector would be issued soon by the Ministry of Industrial Development.

8.46 Besides the preference which would be accorded to fresh investors of small and medium levels under the new industrial licensing policy, there is a need for extending to them further support by nationalised banks and other financial institutions so that the rate of industrial growth may be accelerated

through better participation by such financial institutions. For this purpose, these institutions should, in our view, give preference to such entrepreneurs by earmarking a suitable proportion out of their total advances as also by allowing them better terms and conditions for these advances, with due regard to the priorities that may be decided by the government. There should also be a suitable scheme of differential rates of interest on advances to such entrepreneurs in accordance with these priorities.

8.47 Apart from the broader questions of overall industrial policy, it seems to us that a completely new approach is warranted in the matter of administration of various regulations and controls pertaining to industrial development. The crucial objective should be one of substantially reducing the time-lags in securing clearance to a project from numerous government agencies with respect to new investment decisions. Investment proposals have currently to pass through a multiplicity of consecutive checks from different aspects so that the time interval between the initiation of a proposal and its final approval in all respects covers a period which generally extends to two to three years and in several instances, the time-lag has even been longer. This applies almost equally to investments in the public and private sectors. Under the present procedures, each case needs to be considered separately and in consecutive stages from the point of view of the industrial licensing regulations, import regulations, foreign collaboration aspect, the Monopolies and Restrictive Trade Practices Act (MRTP), etc. The procedures connected with each of these stages involve considerable effort and time being devoted by the entrepreneurs to secure each of these clearances. Several attempts made in the past to simplify these procedures and to lay down time limits have been of marginal significance and the cumulative delays involved in securing all the clearances are still long and frustrating.

8.48 A rising tempo of investment in the public as well as private sectors for the establishment of new industries and the expansion of existing units is an important desideratum for rapid industrial growth. In this matter the time factor is of the essence and speedy decision-making is a pre-requisite for accelerated industrial growth. The considerable emphasis that is being laid on industrial growth and employment in the Fifth Plan period, envisaging a substantial step-up in the outlay in the industrial sector, will place heavy burdens on the administrative system

and would delay the fructifying of investment unless the present regulatory arrangements and procedures are speeded up and streamlined. Otherwise these procedural hurdles might prove to be a major bottleneck in the fulfilment of the expanded industrial programme envisaged in the Fifth Plan.

8.49 Having regard to these considerations, we are of the view that a detailed examination of such regulations and controls as affect industrial growth should be undertaken as early as possible with a view to assessing the extent to which these are essential from the point of view of the broad objectives intended to be secured through them and to considering to what extent these regulations should be modified, simplified or done away with altogether by adopting simpler alternative instruments of policy. Broadly speaking, the objective should be to retain physical control only in critical areas involving deployment of large and scarce resources. By doing so, the administrative burden would be substantially reduced and at the same time, government would be able to give more careful and continued attention to major projects in key industries. We feel that a detailed examination of these aspects should be undertaken so as to evolve appropriate policies and procedures well in advance of the commencement of the Fifth Plan.

New pattern of industrial growth

8.50 Acceleration of industrial growth by itself may not lead to substantial increase in employment in the industrial sector. It is through the refashioning of the pattern of industrial growth that we can achieve adequate results in terms of additional employment. In addition, the overall rate of industrial growth has to be related to the development of the rest of the economy which can be sustained with the existing levels of technological capacity and the current resources, both physical and financial. Keeping in view these constraints, a list of 'core' industries consisting of basic, critical and strategic industries has been drawn up and definite targets of capacity and production laid down for each of them for realisation during the Fourth Plan. The reshaping of this industry-mix would, therefore, have to be considered keeping in view the above factors, and far greater emphasis would be required to be placed on certain industrial programmes having relatively larger employment potential. With these considerations, it is desirable that industrial programmes in the large scale sector be confined to those items in which there are compulsions of technology and scale or where there is immediate need to

augment the supply of mass consumption goods like textiles, edible oils, sugar, kerosene, etc. In addition, certain industries like iron and steel, polyethylene granules, poly vinyl-chloride (PVC) powder, etc., have high employment linkage effects and when developed on a large scale basis, they generate considerable employment in the industrial sector itself by producing basic materials for other industries. Some of them create considerable employment outside the industrial sector also especially in the tertiary sector in the form of distributive trade, commerce, transportation services, etc. We, therefore, recommend that industrial programmes in the large scale sector should be confined by and large to those items in which there are compulsions of technology and scale, which have high employment linkage effects or where there is immediate need to augment the supply of mass consumption goods. The public sector also should participate in the production of such critical and mass consumption items. There is also need for a coordinated programme which closely integrates the small scale units with the large scale industries in terms of backward and forward linkages.

Promotion of small scale industries

8.51 The rate of growth of small scale industrial units, their contribution to industrial employment and output and the wide range of production achieved by them during the past 15 years or so clearly highlight the important role played by the small scale sector in the industrial economy of the country. In our view, the promotion of small enterprises deserves still greater attention and emphasis, if the basic objective of economic growth with social justice is to be achieved and employment opportunities, in a much larger measure, are to be created. It would be relevant to mention in this connection that a task force on small scale industries set up by the Ministry of Industrial Development has, in its interim report submitted in November 1972 proposed a total outlay of Rs. 1,750 crores for the small scale sector during the Fifth Plan. It is expected that 2 lakh additional small scale units would be set up during this period bringing the total number of such units to nearly 5 lakhs and providing additional employment to about 2 million persons. In this context, it would be appropriate to suggest some measures which would, in our view, be conducive to a faster rate of growth of this sector and to indicate the potential fields of production in which sizeable employment opportunities both in urban as well as rural areas could be created if greater assistance is provided.

Reservation of items

8.52 As many as 124 items have been, we understand, exclusively reserved for production in the small scale sector based on the technical feasibility and economic viability of their products without prejudice to the quality of the products and 80 more items are being considered for similar reservation. In order that small scale units may gear their production to meet the current and future demand for these items at competitive prices, it is imperative that adequate support measures are taken to ensure that the policy of reservation encourages the existing units to expand their production and induces new units to come up in these lines of production.

Agro-industries

8.53 Apart from the lines of activities like engineering, electrical goods, chemical-based industries, electronics, etc., in which there is considerable scope for the development of small scale units, we would like to emphasise the need to give particular attention to the development of agro-industries in the future strategy for the promotion of small scale industries.

8.54 Activities like the processing of the agricultural and horticultural produce, the utilisation of agricultural by-products and waste products, the activities supporting agricultural operations such as the production of implements, fertiliser mixtures, pesticides, etc., and the provision of servicing facilities for the upkeep and maintenance of agricultural machinery and equipment like sprayers, pump-sets, etc.—all these are capable of being organised as small enterprises to absorb a good number of qualified entrepreneurs as well as skilled and unskilled workers in many semi-urban and rural areas. For instance, the manufacture of agricultural implements required for the introduction and growth of the new technology in agriculture, would generate considerable employment in the countryside. These implements, like simple threshers, diesel engines, small pump-sets and seed-drills will not need capital-intensive factories but could be manufactured at the local level in more labour-intensive and simple units which could be set up in the rural areas. The processing of the products of occupations subsidiary to agriculture, for instance, dairying, horticulture, pisciculture and forestry could also generate sizeable employment. Such processing would include the canning and preservation of fruits, vegetables, and fish, the chilling of milk, preparation of butter and cheese, etc.

8.55 Most of these activities are also expected to be taken up in the areas under the Rural Industries Projects programme. It is intended to cover the entire countryside under this programme during a period of 25 years by taking up 50 new projects in each Plan period beginning with the Fifth Plan. However, considering the magnitude of the problem of unemployment and under-employment in rural as well as urban areas, there is an urgent need to step up substantially the coverage of the programme. To ensure their success such projects should be preferably developed around growth centres. They should also take up the production of non-traditional items for domestic consumption and export as thereby this would cater to a wider market.

Ancillary industries

8.56 Another area in which employment opportunities could be enlarged is the development of ancillary small scale industries. The large scale industries and those in the small scale sector are, to a great extent, inter-dependent and contribute to each other's prosperity. While on the one hand, small scale industries manufacture products from the basic materials like iron and steel, aluminium, chemicals, etc. produced by large scale units, many large scale industries buy, on the other hand, parts and components, sub-assemblies, etc., from small units for the manufacture of their final products. It is felt that the inter-dependence of this type which is to the mutual benefit of both the sectors should be fostered for the sustained growth of the small scale sector. This organic relationship could be developed on a sound and sure footing if the large scale units farm out to the small scale sector the production of such components, parts, spares, sub-assemblies, etc., as could be manufactured advantageously in the small scale units. Such a relationship has been working with success in some of the advanced countries especially Japan, the U.S.A. and the U.K.

8.57 There are quite a number of large undertakings, (both in the private and public sectors) and large industrial complexes in the country, around which there is considerable scope for the development of ancillary industries. Of these, only a few have taken effective steps to develop and promote the growth of regular ancillary units. In order to maximise employment opportunities through the setting up of ancillary units, some of the measures which could be taken are mentioned here.

8.58 In order to assist in the establishment of ancillary units, it is desirable that all new industrial undertakings or which apply for

licences to manufacture plant, machinery and other industrial goods or the existing units which apply for substantial expansion of production of these items should be compulsorily asked to farm out to small enterprises such of the components, spares, sub-assemblies, etc., as are capable of being manufactured in the small scale sector. Even in the matter of certain processing and finishing jobs like heat treatment, electroplating, etc., the large scale units need not be allowed to establish such facilities within their premises but they should get these jobs done by the existing small scale units or the new units to be established for the purpose. The existing as well as new large scale enterprises should consciously foster the development of ancillary units by providing them technical guidance, common service facilities, testing facilities, etc., and also by encouraging qualified and experienced persons in their organisations to set up such units. The supplies of raw materials to ancillary units should be ensured and they should be accorded necessary facilities and assistance in securing such materials so that they could effectively meet their commitments to large industries. Allocations of raw materials to ancillary units may also be supplemented by additional allocations by large scale units which are generally assured of their raw material supplies. Further, certain fiscal measures like sales tax and excise duties on parts and components fall cumulatively on both the large scale and small scale units and thus act as a disincentive to sub-contracting. It is necessary to obviate the double incidence of taxes and duties in such cases. Some scheme should, therefore, be evolved to avoid the cumulative incidence of excise duties and sales tax when production is decentralised and the manufacture of parts and components is taken up by ancillary units.

8.59 The reluctance on the part of small units to enter into sub-contracting arrangements with large units is, we understand, partly due to unsatisfactory payment practices involving delays and loss to small units. Our Working Group has suggested that there is need for a legal framework to govern the contractual arrangements between the large units and the ancillary units and this should be backed by the creation of a statutory authority to deal with complaints from sub-contractors regarding delayed and bad payment practices. We understand that this matter has been recently examined by a committee set up by the Reserve Bank of India in April, 1971. That Committee has made several useful recommendations for minimising delays in the payment of bills of small industries by large and medium industries. We feel that

these recommendations may be given due consideration by the concerned authorities so that the hardships faced by the small scale entrepreneurs are minimised. The possibility of legislation for governing sub-contracting should also, in our view, be examined by government.

8.60 For promoting small scale units around large industrial complexes it would also be desirable to set up sub-contracting exchanges in different parts of the country on the pattern of the exchanges already functioning in Madras and Bombay. These exchanges would provide a useful medium for gaining knowledge and understanding of the requirements and problems of both the large and small units and they would also ensure effective marketing arrangements for the products of ancillary units.

Credit requirements

8.61 The credit requirements of the small scale sector would increase considerably in the coming years in view of the increased emphasis on this sector and also on account of the importance being attached to the schemes of self-employment for the educated unemployed including young engineers and technical personnel, development of backward areas, promotion of agro-industries, etc. To cut down delays in the grant of loans, there is need for greater coordination between the state financial corporations and the nationalised commercial banks. The applicant should be required to submit a copy of his project report each to the state financial corporation and the commercial bank. The loan for fixed assets could be granted by the state financial corporation and that for working capital by the commercial banks. It would also be necessary that these agencies earmark additional funds for assistance to small scale industries to meet the higher requirements of this sector in the coming years.

Raw materials

8.62 In regard to raw materials, there has been an improvement in recent years as is evident from the increase in the value of import licences issued to the small scale sector from Rs. 49.77 crores in 1967-68 to Rs. 118 crores in 1971-72. While this is a welcome development the basic objective should be to treat small scale units at least on a par with large scale units in the matter of allocation of scarce raw materials. To this end, there is

need for a more liberal policy than that followed hitherto. In this connection, we fully endorse the recommendations of the Balachandran Committee* which should, in our view, be implemented without further delay. In our view, this would provide great stimulus to the growth of small industries.

Marketing

8.63 In so far as small scale units in the ancillary sector are concerned we have already referred to the need for bringing about an organic relationship between such units and the major industries to which they cater. In regard to other small units, the current position is that a measure of preference is accorded to selected items produced by this sector in government purchases. While this is certainly helpful, our Working Group on Industries considers that this measure would be of great assistance to the small units if the procurement procedures particularly those involved in sending out tender documents of the Directorate General, Supplies & Disposals and other government procuring agencies, are simplified. We suggest that this aspect of the matter should receive careful consideration of the government.

8.64 The state small industries corporations can also play an active role in the display and marketing of goods of the small scale units. The possibility of setting up trade centres and retail outlets at important places by the organisations of small entrepreneurs by other organisations concerned with the development of the small scale industries and by state small industries corporations to assist and promote the marketing of the products of small scale units, needs to be carefully considered. Further, cooperative marketing agencies formed by small scale units themselves could also be encouraged. The state directorates of industries should also keep in touch with the changing pattern of demand and encourage the manufacture by the small scale units of the products of suitable types and designs for which there is a ready market.

Need for separate legislation

8.65 The small scale industries are at present governed by the various acts originally enacted for large scale industries, e.g., the Factories Act, the Companies Act, the Partnership Act, the Industries (Development and

Regulation) Act, etc., and there is no separate legislation, specifically for small scale industries. The small scale entrepreneurs have to suffer from severe handicaps and to undergo unnecessary hardships owing to cumbersome procedures involving prolonged delays. The time has come, in our view, for enacting separate legislation for the small scale sector to remove the inherent drawbacks and difficulties which have affected its growth in the past. We understand that on the recommendation of the Small Scale Industries Board, a committee was set up by the Ministry of Industrial Development in January, 1972 to go into various aspects of the problem and to suggest the draft of a legislation for small scale industries. The Committee has since submitted its report and has made recommendations for enacting suitable legislation on matters such as the definition of small scale industry, restricted partnership, development of ancillary industries, reservation of items, public purchases from small sector, collection of statistics, raw materials and modernisation. We recommend that the suggestions made by this committee should be given earnest consideration and necessary legislation in respect of these matters promoted at an early date.

Wage and welfare legislation

8.66 Wage differentials have also played an important part in the development of small scale industries. In Japan, where the small scale industries have developed to a remarkable degree, the level of wages in the small scale sector continues to be lower than in the large scale sector. Although the long term need for improving the wage levels and other welfare measures for labour in the small scale sector does exist, it will be readily recognised that at the present moment, unemployment is undoubtedly the more crucial problem and all possible measures should be taken for reducing the current high level of unemployment. Moreover, it will be relevant to mention in this connection that since the legislation regarding wages and labour welfare would need to be applied to smaller units whose number would be large, the inadequacies of the administrative organisation as also other difficulties are likely to impede proper implementation of such legislation. In view of these factors, we agree with the suggestion made by our Working Group that the pace of labour legislation should be moderated so

*A committee on scarce raw materials for small scale industries was appointed under the chairmanship of Shri K. Balachandran, Additional Secretary, by the Ministry of Industrial Development which submitted its report in 1971.

far as the smaller units in the small scale industry are concerned, and would recommend that this aspect may be examined by government.

Consultancy services

8.67 The promotion of competent entrepreneurship for the small scale sector in general and of self-employment in particular is inhibited, *inter alia*, by the inadequacy of consultancy services for this sector. As a consequence, many projects in this sector which are otherwise sound do not fructify. The Organisation of the Development Commissioner, Small Scale Industries, and the National Productivity Council have some arrangements for providing consultancy services to the small scale sector. These facilities and services are, however, inadequate looking to the size of the problem and the increasing complexity of the industrial processes and they are not geared to meeting the developing requirements of the modern small scale industry. These services would, therefore, need to be substantially expanded and strengthened to fulfil the growing needs of this developing sector.

8.68 These facilities have also to be provided at a reasonably low cost to the potential entrepreneurs. In this connection, we consider it desirable that project profiles should be made available at a nominal cost. In so far as detailed technical consultation is concerned the cost should be met partly by an outright grant (as is being done by the Tamil Nadu Govt.) or by a grant which is capitalised if the project matures (as is being done by the State Industrial and Investment Corporation of Maharashtra) or by interest free loans to be recovered after the enterprise starts functioning. It would also be essential to strengthen adequately the small industries service institutes (SISI) with qualified and experienced staff competent to provide detailed consultancy services. It should also be possible for the National Productivity Council, the banks and the financial institutions to strengthen their organisations to perform this role in a big way. In the long run, it would be necessary to set up separate well-equipped consultancy service agencies in respect of certain important industries.

Choice of technology

8.69 Apart from the industry-mix, an important factor to be taken into account while choosing a pattern of industrial growth which is suited to the creation of larger employment opportunities would be choice of an appropriate technology. A capital-intensive techno-

logy has been introduced in most of the projects as a result of tied credits, inter-country agreements, lack of adequate scrutiny of reports and a desire for "going modern". In addition, certain fiscal policies of government like development rebate, low interest rates, etc., have also contributed to this situation. Since the maintenance of harmonious labour-management relations is beset with many difficulties, entrepreneurs tend to prefer machines to labour wherever possible, thereby aggravating the problem of unemployment. In the circumstances, we feel that the existing policies should be reviewed and modified so that the bias towards capital-intensive technology arising from such extraneous factors is removed and the loss of employment opportunities on this account avoided. As mentioned in para 8.15 above, it is necessary to discourage the use of highly sophisticated or automated machinery in the choice of technology.

8.70 In certain cases it should be possible at the stage of consideration by the Licensing Committee itself to modify the investment proposal in such a way that the capital-intensiveness of the project is reduced either by providing for sub-contracting or by suggesting changes in the technology. At the stage of consideration of the foreign collaboration aspect, the availability of indigenous technology, particularly of a labour-intensive nature, can be examined or indicated to the entrepreneur and the application for foreign collaboration refused or modified on that basis. At the time of clearance of capital goods import also, it should be possible to ensure that unnecessarily capital-intensive machinery is not allowed to be imported. As it is, the Department of Science and Technology are now represented on the Licensing Committee as well as on the Foreign Investment Board. The scrutiny at their hands has necessarily to be quick enough so as not to prolong the time taken in consideration of industrial licences or the terms of foreign collaboration. For this purpose it would be useful and desirable if a shelf of alternative and appropriate technologies is built up, so that various cases could be considered speedily with reference to a list of such technologies. It need hardly be emphasised in this connection that the technologies to be suggested should be capable of immediate commercial application as otherwise the projects under consideration may be unduly held up.

8.71 In conformity with the policy laid down in the Fourth Plan, the Government of India constituted sometime in the past an

'Appropriate Technology Cell' in the Ministry of Industrial Development for identifying suitable technologies in important sectors of the industry and recommending suitable measures which would help in the adoption of such appropriate technologies. In view of the importance of adopting appropriate technologies in the conditions prevailing in this country, particularly with a view to increasing employment opportunities in the industrial sector, we feel that the 'Appropriate Technology Cell' be strengthened and better equipped to discharge the responsibilities and functions entrusted to it. It should be suitably reorganised and expanded, with a competent staff consisting of an inter-disciplinary team of technologists and placed under an appropriate ministry. It should also have the responsibility of sponsoring research schemes in national laboratories and of generally stimulating research and development work in this important field. Further, it may be empowered to operate pilot projects and conduct field demonstrations with a view to assessing the suitability of particular processes, equipment or machines from the point of view of appropriate technology. As a specialised agency, it should also have an adequate voice in advising the government on the relevance and suitability of particular technologies to be adopted in the establishment of new capacities in various industries.

8.72 Apart from the emphasis on appropriate technology, encouragement has to be given in general to the development of indigenous technology—a technology entirely developed within the country. This would have many advantages including the creation of employment opportunities for Indian scientists, technologists and engineers who would be engaged in programmes of technological research and in promoting its adoption by the industry. The technology that would be thus developed indigenously should be more suitable to our conditions and requirements than that imported from other countries.

8.73 The government have established organisations like the National Research Development Corporation of India (NRDC) in the country for developing and exploiting inventions in the public interest and ensuring commercial production of the products of such inventions. Adequate support should be given to the activities of the National Research Development Corporation, the Council of Scientific and Industrial Research and other similar organisations entrusted with the development and utilisation of indigenous techno-

logy as a means of creating more employment opportunities in the country.

Promotion of self-employment

8.74 The creation of additional employment opportunities will have to be supplemented with the promotion of self-employment to encourage new entrepreneurship and promote increased production in the industrial sector. The Ministry of Industrial Development have prepared and launched two schemes, one for the educated unemployed and the other for the self-employment of engineers, as part of the programme for dealing with the problem of unemployment. Primarily these schemes provide facilities for the training of selected engineers, technicians and unemployed educated persons and also give assistance to them in setting up small industrial units. The objective is to provide the educated unemployed with training as well as facilities in matters like seed capital, availability of industrial sheds and purchase of machinery to enable them to set up industrial units. In the case of unemployed engineers, the scheme envisages training programmes and subsidy towards interest on loans given by the financial institutions. These schemes were initiated in 1971-72. Both in the context of industrial growth as well as of the provision of employment to the educated and technically qualified persons, opportunities for self-employment have to be expanded sedulously. With this end in view, we would suggest that the schemes of the Ministry of Industrial Development currently under implementation be reviewed in the light of the experience, albeit of a somewhat limited nature gained so far, and suitable adjustments made therein with a view to making them more effective and purposeful.

8.75 In the context of the dimensions that the problem of unemployment has assumed in the country and of the stupendous task involved in generating additional employment to match the requirements, particularly in the factory sector and the tertiary sector, it becomes imperative to create conditions favourable for the growth of self-employment on a large scale and to take measures to foster and encourage the move towards self-employment in reference to the beaten and traditional track of employment under government or in other sectors. It is realised that the existing socio-economic milieu is not altogether favourable for the growth of a spirit of initiative and enterprise among young people, or for the development of the capacity and willingness to take to new lines of economic activity that are a necessary adjunct to such spirit. The

long-term problem is one of creating conditions for the growth of self-employment through an orientation of our educational programmes, particularly of the programmes of vocational education, and through changes in the social values and norms.

8.76 For meeting the credit requirements of various types of self-employed persons, the Reserve Bank of India, in the light of the recommendations made by the Thakkar Committee appointed by it, issued certain guidelines to the commercial banks in March, 1971 for the operation of special credit schemes to these categories of persons. The total credit limits sanctioned to these categories of borrowers as at the end of March, 1972 amounted to Rs. 24 crores covering 8393 units and the amount outstanding was Rs. 15.2 crores*. This scheme has already been referred to in our Interim Report.

In that Report we expressed the view that in the matter of providing credit under the special credit schemes, the banks should take a broad and liberal view of the categories of persons to be eligible for assistance and should extend such credit to the entire range of the self-employment field so as not to deny credit facilities to any group of persons or individuals wanting to set up as self-employed persons in a profession or a business activity, such as theatrical group, writers' cooperatives, etc. We had also observed therein :

"In order that these measures of special credit assistance should be really efficacious, it is also essential that the terms of the loans, e.g. the rates of interest, period of repayment, margins, security, etc., should be made softer and should take into consideration the requirements and limitations of such borrowers".

We take this opportunity of reiterating these suggestions as we attach considerable importance to them.

Differential interest rates

8.77 We had also in our Interim Report referred to the Report of the Committee on Differential Interest Rates set up by the Reserve Bank of India in September, 1970. We had urged that decision on the recommendations made in the above mentioned Report should be taken very early by the authorities concerned. The Government decision on this Report was announced by the Finance Minister in Parliament on March 25, 1972. Later

on in June, 1972 the Reserve Bank of India issued guidelines for the operation of the scheme to the public sector banks which thereafter started operating the scheme on a pilot basis.

8.78 The differential interest rate was uniformly fixed at 4 per cent for the categories eligible under this scheme which was initially introduced in 163 industrially backward districts excluding those covered by the Small Farmers Development Agency (SFDA) and the Marginal Farmers and Agricultural Labour Schemes (MFAL). The parties eligible for loans under the scheme include *inter alia*, scheduled castes and scheduled tribes, people occupied in the elementary processing of various products and physically handicapped persons engaged on a modest scale in cottage and rural industries and vocations. The total advances under this scheme were expected to reach a level of Rs. 20 crores by the end of June, 1972.

8.79 The scope and coverage of the scheme have recently been liberalised by government. The Finance Minister in his Budget Speech on February 28, 1973 announced that the Scheme would now be extended also to the districts covered by Small Farmers Development Agency (SFDA)/Marginal Farmers and Agricultural Labour (MFAL) Schemes and in all, it would be operated in 265 districts covering 3/4th of all districts in the country. The income limit for eligibility has also been increased from Rs. 2,000 to Rs. 3,000 per annum for urban and semi-urban areas and from Rs. 1,200 to Rs. 2,000 per annum for rural areas. The ceiling for working capital loans which was earlier Rs. 500 has now been raised to Rs. 1,500 and for term loans from Rs. 2,500 to Rs. 5,000. It is hoped that with this liberalisation, the scheme will be able to provide better service to wider sections of the people over wider areas.

Dispersal of industries to backward areas

8.80 Though the problem of unemployment affects the whole country, the backward areas suffer more in view of the intensity and acuteness of the problem in such areas. Industrial growth has so far been mainly confined to certain developed areas in the country leading to the concentration of industrial activity in a few pockets. This has led to the migration of the rural youth to the metropolitan areas and other industrial centres, resulting in a host of problems like congestion, over-crowd-

*B.I. Bulletin—December, 1972 p. 2140.

ing slums, etc. With a view to removing the stagnation from which the economies of these backward and rural areas suffer and to providing opportunities for gainful employment to the people of these areas nearer their homes and hearths, it will be necessary to spread the setting up of industrial units in semi-urban and rural areas as also in the backward regions of states which are still undeveloped. In this connection we feel that in a case where an industrial licence is issued for setting up a unit in such areas, the entrepreneur should not normally be permitted to change its location to a large city or a more developed area.

8.81 In order to create an impact on the development of the backward areas, the industries to be selected for being set up should be such as have an organic relationship with the economy and resources of the area and the necessary forward and backward linkages with other economic activities therein. A lead in this direction has to be provided by the state governments concerned in association with the financial institutions under the aegis of the Industrial Development Bank of India and the lead banks. The provision of services such as those provided by the Kerala Industrial Technical Consultancy Organisation (KITCO) would be very helpful for undertaking surveys and providing the necessary consultancy services for the development of backward areas. Similar services are, we understand, being provided by the State Industrial and Investment Corporation of Maharashtra (SIICOM). Institutions for providing similar services and for performing such tasks should, in our view, be created for other backward areas also. We recommend, therefore, that the necessary institutional framework should be established for the provision of consultancy services to the small scale sector and other connected arrangements also made in the backward areas of all the states. Besides, the government has provided a number of fiscal and financial incentives for the development of industries in backward areas and these have already been discussed in Chapter VI.

Traditional village and cottage industries

8.82 The maintenance of the present levels of employment in certain sectors of industry and in certain types of units is also essential in order to prevent further deterioration of the unemployment situation. These could be

broadly classified under two groups : (i) traditional village and cottage industries (ii) sick and closed units, both in the large and small scale sectors.

8.83 More important industries under group (i) above would include handloom, khadi and village industries, sericulture, coir, cashew, manufacture of bidis, handicrafts, etc. These industries are currently providing employment to more than 10 million persons among the relatively vulnerable sections of the community widely dispersed over rural and semi-urban areas. The traditional rural and cottage industries suffer from a number of handicaps including the inadequacy of institutional credit and poor techniques. Because of these handicaps, they are not able to sustain the present level of employment and would languish or become extinct in the face of competition from the relatively more modern sectors. However, in view of the large scale employment being provided by this group of industries, we consider that in the first instance, institutional credit should be made available to them on liberal terms and on a more extensive scale taking into account their requirements.

8.84 Since the upgrading of techniques in traditional industries is of crucial importance for their viability and for sustaining the existing levels of employment, we feel that the concerned agencies should take up on a basis of urgency, programmes for the improvement of skills, designs and production techniques in these industries. Such programmes should, as suggested by the Asoka Mehta Committee*, be spread over a number of years for the khadi and village industries. In the meantime, measures of fiscal support in their present form should continue and be extended to those industries not yet covered.

8.85 For some time past the handloom industry has, we understand, been experiencing difficulties in obtaining cotton and art silk yarn in adequate quantity and at reasonable prices. In view of the large number of persons (nearly 3 million) dependent on this industry who are exposed to under-employment or may be thrown out of employment due to these difficulties, we consider that remedial measures should be taken as a matter of urgency for ensuring a better supply of yarn to handloom weavers at reasonable prices.

*This Committee was appointed by the Ministry of Commerce and submitted its report in February 1968.

8.86 We feel that the strength and rationale of our policies to support and encourage the khadi and village industries are based on the consideration that the latter constitute an effective means to decentralise industrial activity to the village and household levels and thereby provide employment on a widely dispersed scale. It is felt that the basic concept of decentralisation of industries to these levels and the creation of employment thereby should be extended to other industrial activities also instead of being confined to those which are traditional. For example, Japan has achieved a great measure of success in this regard and we could as well derive benefit from their experience. The manufacturing activities in industries like electronics, where components are required on a mass scale, may conveniently lend themselves to such decentralisation. There is need, therefore, for an expert investigation to examine as to how far some of the activities of the modern industrial sector could be decentralised to the village and household levels. After investigation of such possibilities, a few pilot projects could be taken up and on the basis of the results, the potentialities of their extension assessed further.

Sick and closed units

8.87 Another area where the protection of the existing levels of employment is necessary relates to sick and closed units. We have already referred in brief to some aspects of this issue in our 'Interim Report'. It will be recalled that in that Report we suggested the setting up of an agency in the form of a separate corporation, charged with the duty of overseeing the economic health of, and the state of affairs obtaining in industries where closures have taken place or are apprehended, with a view to remedial and timely action being taken. This corporation might be provided with adequate financial resources in the nature of a revolving fund to enable it to discharge its functions. We would like to reiterate our earlier suggestion for the setting up of such a corporation for this purpose.

We feel that in the case of industries like textiles and sugar which employ a large number of workers, suitable steps for modernising the plant and machinery, where necessary, should be taken as a matter of urgency and other necessary steps also taken so that the closures resulting from the inefficient working of the units or due to old and worn out equipment may be avoided.

8.88 For the purpose of development of industries in backward areas, the growth of priority industries and for stimulating the growth of small scale industries, etc. the need for consideration of a number of fiscal and financial measures would arise. These issues have already been dealt with by us in some detail in Chapter VI of this Report.

ANNEXURE (1)

Growth of Industrial Production

Year	Index (Base 1951 = 100)	Percentage increase or decrease
1951	100.0	—
1952	103.6	3.60
1953	105.6	1.93
1954	112.9	6.91
1955	122.4	8.41
1956	132.6	8.33
1957	137.3	3.54
1958	139.7	1.74
1959	152.1	8.87
1960	169.7	11.57
1961	185.3	9.20
1962	203.3	9.70
1963	220.1	8.26
1964	238.9	8.54
1965	260.9	9.23
1966	259.1	—0.17
1967	256.9	—0.85
1968	273.4	6.42
1969	292.7	7.10
1970	306.8	4.82
1971	315.9	3.00
1971(Jan.-Oct.)	314.1	—
1972 (Jan.-Oct.)	336.8	7.23

NOTE : The index from 1960 onwards has been converted to the base 1951=100.

ANNEXURE (2)

Production in Selected Industries

S. No.	Item	Unit	1950-51	1955-56	1960-61	1965-66	1968-69	1969-70	1970-71	1971-72 (Provi- sional)	1973 (Anticipa- ted)
1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Iron ore	Million tonnes	3.0	4.3	11.0	24.5	28.1	21.2*	22.5*	23.2	42
2.	Coal	do.	32.8	39.0	55.7	70.3	75.4	80.0	74.3	74.0	NA
3.	Finished steel	do.	1.04	1.3	2.39	4.51	4.7	4.80	4.48	4.79	6.2
4.	Pig Iron (for sale)	do.	0.36	0.39	1.1	1.2	1.3	NA	NA	NA	2.8
5.	Steel ingots	do.	1.47	1.74	3.42	6.53	6.5	6.43	6.14	6.41	8.25
6.	Copper (virgin metal)	000 tonnes	7.1	7.6	8.5	9.4	9.4	9.8	9.3	8.3	14.0
7.	Aluminium (virgin metal)	do.	4.0	7.4	18.3	62.1	125.3	135.1	166.8	181.5	210.0
8.	Cement machinery	value in Rs. lakhs	—	40	60	490.0	810.8	1,010.0	420.0	220	1500
9.	Sugar machinery	do.	—	20	440.0	770.0	1180.0	1390.0	1390.0	1770	1900
10.	Machine tools	do.	30	80	700	2940	2540	3290	4300.0	5500	6000
11.	Diesel engines (stationary)	000 numbers	5.5	10.4	44.7	93.1	118.0	134.2	65.7	69.9	80
12.	Tractors (agricultural)	do.	—	—	Neg.	6.3	15.4	NA	NA	NA	50
13.	Electric transformers. (33 Kv and below)	000 kvs.	178	625	1392	4460	4800	NA	NA	NA	8600
14.	Chemical fertilizers										
	(i) Nitrogenous	000 tonnes of N	9	80	101.0	232.0	541.0	716	830	952	1800
	(ii) Phosphatic.	000 tonnes of P ₂ O ₅	9	12	53.0	123.0	210.0	222	229	278	458
15.	Sulphuric Acid	000 tonnes	101	167	368	662	1038	1197	1053	975	1750
16.	Soda ash	do.	45	82	152.0	331.0	405.0	427	449	489	570
17.	Caustic soda	do.	12	36	101.0	218.0	304.0	354	371	385	440
18.	Sewing machines	000 numbers	33	111	303.0	430.0	427.0	340	235	312	500
19.	Bicycles	do.	99	515	1071.0	1574.0	1919.0	1976	2042	1766	2700
20.	Cotton textiles (mill made)	Million metres	3401	4665	4649	4401	4297	4192	4055	4039	5100
21.	Sugar	000 tonnes	1134	1890	3021	3541	3559	4261	3740	3110	4700
22.	Cement	Million tonnes	2.73	4.67	7.97	10.8	12.2	13.8	14.4	15.0	18.0
23.	Petroleum products (capacity in terms of crude throughout)	Million tonnes	0.2	3.4	5.8	9.4	15.4	16.6	17.1	18.6	21.5
24.	Electric fans	Million numbers	0.20	0.29	1.06	1.36	1.48	1.51	1.72	2.1	2.5
25.	Newsprint	000 tonnes	—	3.6	23.0	30.3	31.0	—	—	—	65

26.	Powers tillers	000 numbers	—	—	—	—	0.5	NA	NA	NA	20.0
27.	Metallurgical and other heavy equipment	000 tonnes	—	—	—	11	25	NA	NA	NA	40
28.	Coal and other mining machinery	do.	—	—	—	5.1	8.0	NA	NA	NA	10
29.	Heavy fabricated machinery for fertilizers	do.	—	—	—	—	—	—	—	—	10
30.	Heavy pumps and compressors .	000 tonnes	—	—	—	—	—	—	—	—	5
31.	Crawler tractors and wheeled loaders	numbers	—	—	—	—	—	—	—	—	600
32.	Seamless pipes	000 tonnes	—	—	—	—	21.8	NA	NA	NA	35
33.	Turbines hydro	Million Kvs.	—	—	—	Neg.	0.1	NA	NA	NA	1.1
34.	Turbines thermal	do.	—	—	—	Neg.	0.4	NA	NA	NA	1.20
35.	Power boilers	do.	—	—	—	Neg.	0.4	NA	NA	NA	1.3
36.	Electric transformers above 33 Kv. .	Million Kvs.	—	—	—	1.2	3.5	NA	NA	NA	6.4
37.	Electric motors above 200 H.P. .	Million H. P.	—	—	—	0.5	0.5	NA	NA	NA	0.68
38.	Synthetic fibres :										
	(i) Nylon filament	} 000 tonnes	—	—	—	1.5	6.5	NA	NA	NA	21.0
	(ii) Nylon tyre cord and										
	(iii) Other industrial yarn										
39.	Polyster filament and staple fibre .	do.	—	—	—	1.4	4.8	NA	NA	NA	22.0

Source : Plan Documents and the Economic Survey 1972-73.

*Excludes output in Goa.

NA- Not available.

ANNEXURE (3)

Yearwise Plan Expenditure on Industry and Mining during the years 1951-52 to 1971-72

(Rs. Crores)

Year	Actual/anticipated expenditure	Percentage change over the previous year
(1)	(2)	(3)
1951-52	10.62	- —
1952-53	9.39	-13.09
1953-54	18.36	+95.52
1954-55	21.61	+17.16
1955-56	36.95	+71.78
1956-57	81.52	+120.62
1957-58	227.28	+178.80
1958-59	279.34	+22.91
1959-60	268.85	-3.90
1960-61	218.56	-23.01
1961-62	235.84	+7.91
1962-63	298.93	+26.75
1963-64	391.26	+30.89
1964-65	458.41	+17.16
1965-66	582.60	+27.09
1966-67	557.22	-4.55
1967-68	513.25	-8.57
1968-69	566.10	+10.30
1969-70	485.32	-16.64
1970-71	517.91	+6.71
1971-72	602.66 (estimated)	+16.36

Source : 1. Basic Statistics relating to the Indian Economy (p. 67)— Central Statistical Organisation.

2. The Fourth Plan Mid-term Appraisal Vol. II Planning Commission.

ANNEXURE (4)

Increase in Gross Fixed Assets of Large and Medium Public Limited Companies

Year	Increase in gross fixed assets	Percentage change over the previous year
(1)	(2)	(3)
1961-62	187	—
1962-63	191	2.12
1963-64	233	21.90
1964-65	223	-4.29
1965-66	239	7.17
1966-67	424	77.40*
1967-68	320	-24.50
1968-69	289	-9.68
1969-70	305	5.53

Source : Reserve Bank of India Bulletin, July 1972 (p. 1114).

NOTE : Figures for 1961-62 to 1965-66 relate to 1333 companies (old sample) and for 1966-67 to 1969-70 relate to 1501 Companies (revised sample).

*The percentage variation for the year 1966-67 over the year 1965-66 may not be strictly comparable because of change in coverage.

ANNEXURE (5)

Estimated Average Daily Employment in Working Factories

(Employment in '000)

Year	Working factories	Employment	Percentage variation in employment
(1)	(2)	(3)	(4)
1951	—	2914	—
1952	—	3021	3.67
1953	—	2970	-1.69
1954	—	3037	2.26
1955	—	3114	2.54
1956	37162	3402	9.25
1957	39138	3480	2.29
1958	41579	3413	-1.92
1959	6402	3635	6.50
1960	48038	3764	3.55
1961	50095	3918	4.09
1962	54370	4111	4.92
1963	57366	4366	6.20
1964	60602	4616	5.72
1965	63573	4730	2.47
1966	64872	4702	-0.59
1967	67582	4760	1.23
1968	68599(R)	4758(R)	-0.04
1969	72343	4799	0.86
1970	76739	4938	2.90

Source : (1) Reserve Bank of India Bulletin, July, 1971

(2) Indian Labour Statistics, 1972 (Labour Bureau, Simla).

R— Revised.

ANNEXURE (6)

Percentage Increase or Decrease in Industrial Production and Employment Over the Previous Year

(Base year 1951=100)

Year	Industrial production	Employment
(1)	(2)	(3)
1952	3.60	3.67
1953	1.93	-1.69
1954	6.91	2.26
1955	8.41	2.54
1956	8.33	9.25
1957	3.54	2.29
1958	1.74	-1.92
1959	8.87	6.50
1960	11.57	3.55
1961	9.20	4.09
1962	9.70	4.92
1963	8.26	6.20
1964	8.54	5.72

ANNEXURE (6) Contd.

(1)	(2)	(3)
1965	9.23	2.47
1966	-0.17	-0.59
1967	-0.85	1.23
1968	6.42	-0.04
1969	7.10	0.86
1970	4.82	2.90
1971	3.00	—

NOTE 1.—It may be pointed out that the coverage of employment data and index of industrial production are different. While employment statistics relate to factories employing 10 or more workers and using power, factories employing 20 or more workers and not using power and factories specially brought under the purview of the Act by the State Governments, the industrial production statistics mostly relate to major industries. They cover almost the entire output in the case of well-organised industries like cotton and jute textiles, iron and steel and sugar. In the case of remaining industries they cover production of all except small units. While 'mining and quarrying' is included in industrial production, factory employment data exclude employment in this field. Due to difference in coverages, a comparable relationship between the behaviour of employment and production in the industrial sector cannot be established.

2. Figures in columns 2 and 3 have been derived from Annexure (1) and Annexure (5) respectively.

ANNEXURE (7)

Trend of Investment in Major Industries

(Rs. crores)

Sector	Fourth Plan outlay	Actual/anticipated expenditure			Total for three years	Percentage of the 4th Plan outlay
		1969-70	1970-71	1971-72		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Iron & Steel	1053.32	173.20	177.84	191.90	542.94	51
Non-ferrous Metals	247.77	14.49	23.37	38.61	76.47	30
Iron Ore	88.34	7.14	9.40	17.89	34.43	39
Fertilisers	493.73	77.09	54.68	65.87	197.64	40
Petroleum including refineries	303.20	55.27	61.00	80.78	197.05	65
Petro-chemicals	77.50	4.97	7.20	23.78	35.95	46

Source : The Fourth Plan Mid-term Appraisal (p. 153).

ANNEXURE (8)

List of Industries given in the Revised Industrial Licensing Policy of 2nd February, 1973

(Note.—The classification of industries follows the First Schedule to the Industries (Development and Regulation) Act, 1951. Items of manufacture reserved for the public sector under Schedule A to the Industrial Policy Resolution, 1956 or for production in the small scale sector as may be notified from time to time will be excluded from the application of the list).

1. Metallurgical Industries :—
 - (1) Ferro Alloys.
 - (2) Steel castings and forgings.
 - (3) Special steels.
 - (4) Non-ferrous metals and their alloys.
2. Boilers and steam generating plants.
3. Prime movers (other than electrical generators) :—
 - (1) Industrial turbines.
 - (2) Internal combustion engines.
4. Electrical equipment :—
 - (1) Equipment for transmission and distribution of electricity.
 - (2) Electrical motors.
 - (3) Electrical furnaces.
 - (4) X-ray equipment.
 - (5) Electronic components and equipment
5. Transportation :—
 - (1) Mechanised sailing vessels upto 1000 DWT.
 - (2) Ship ancillaries.
 - (3) Commercial vehicles.
6. Industrial machinery.
7. Machine tools.
8. Agricultural machinery: Tractors and power tillers.
9. Earthmoving machinery.
10. Industrial instruments: indicating, recording and regulating devices for pressure, temperature, rate of flow, weights, levels and the like.
11. Scientific instruments.
12. Nitrogenous and phosphatic fertilisers falling under '(1) Inorganic fertilisers' under '18 Fertilisers' in the First Schedule to the ID&R Act, 1951
13. Chemicals (other than fertilisers).
 - (1) Inorganic heavy chemicals.
 - (2) Organic heavy chemicals.
 - (3) Fine chemicals, including photographic chemicals.
 - (4) Synthetic resins and plastics.
 - (5) Synthetic rubbers.
 - (6) Man-made fibres.
 - (7) Industrial explosives.
 - (8) Insecticides, fungicides, weedicides and the like.
 - (9) Synthetic detergents.
- (10) Miscellaneous chemicals (for industrial use only).
14. Drugs and Pharmaceuticals.
15. Paper and pulp including paper products.
16. Automobile tyres and tubes.
17. Plate glass.
18. Ceramics :—
 - (1) Refractories.
 - (2) Furnace lining bricks—acidic, basic and neutral.
19. Cement products :—
 - (1) Portland cement.
 - (2) Asbestos cement.

Source : Ministry of Industrial Development, Government of India, New Delhi, Press Release dated February 2, 1973.

CHAPTER IX

EDUCATION AND TRAINING

Production and Employment over the

9.1 The incidence of unemployment among the educated persons has been increasing over the last few years. The quantitative and qualitative assessment of the problem of unemployment in its various dimensions, including the pattern of educated unemployed by levels of education, based upon the data available from various sources such as employment exchanges, the National Sample

Survey and census reports, has been discussed in chapter IV of this Report. To recapitulate, the total number of educated job-seekers registered with the employment exchanges as on 31st December, 1972 was 32.78 lakhs, which constituted nearly 48 per cent of the total number of registered job-seekers. The growth in the number of educated unemployed as revealed by the employment exchange data is summarised in Table 21 below.

TABLE 21 : *Number of educated job-seekers on the live-registers*

(Figures in lakhs)

Level of Education	Number as on 31st December						
	1966	1967	1968	1969	1970	1971	1972 (Provisional)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Matriculates	6.20	7.14	8.10	9.10	11.01	12.97	17.44
Above matriculation but below graduation	2.04	2.52	3.24	4.01	4.44	6.05	9.32
(i) Diploma holders	0.19	0.28	0.40	0.45	0.47	0.55	0.61
(ii) Others	1.85	2.24	2.84	3.56	3.97	5.50	8.71
Graduates & above	0.93	1.21	1.75	2.15	2.77	3.94	6.02
(i) Engineers	0.04	0.07	0.11	0.13	0.16	0.19	0.23
(ii) Others	0.89	1.14	1.64	2.02	2.61	3.75	5.79
TOTAL	9.17	10.87	13.09	15.26	18.22	22.96	32.78

Source : Directorate General of Employment and Training.

It will be seen that the total number of educated job-seekers on the live registers of the employment exchanges which was increasing at an average annual rate of 20.1 per cent from December, 1966 to December, 1971, has registered an increase of 42.8 per cent from the end of 1971 to the end of 1972. It is also observed that while the number of matriculate job-seekers has nearly tripled between 1966 and 1972, the number of undergraduate job-seekers has quadrupled and that

of graduates has become six-fold during the same period.

9.2 As already brought out in paras 28 to 30 of chapter IV, information about the number of educated and technically qualified persons in India was collected during the 1971 Census on the basis of the individual enumeration slips as well as on special cards for graduates and technically qualified persons. After tabulation of this data from individual slips on the basis of one per cent

sampling, it appeared that the total number of graduates and diploma holders was 39.21 lakhs, while the number of the special schedules received back from graduates and technically qualified persons was only 21.83 lakhs. It is clear that the response to the special schedules was not complete. However, according to the Council of Scientific and Industrial Research's (CSIR) estimates* of the stock of graduates and diploma holders based on the 1961 census data and the subsequent out-turn of educational institutions, the number of educated graduates and technically qualified persons in early 1971 came to 31.09 lakhs. The variations in these estimates of the stock of graduates affect proportionately the estimates of unemployed graduates. While the special schedules had shown the number of graduate and technically qualified job-seekers as 2.88 lakhs from among the respondents, the economic tables of the 1971 Census show a corresponding figure of 2.04 lakhs. But, according to the CSIR's study, based upon their own estimates of stock and the ratios of unemployed as calculated from the information collected on the special schedules in the 1971 Census, the number of graduates seeking jobs came to 4.21 lakhs out of whom 1.62 lakhs were scientists, engineers and medical personnel (from a stock of 12.68 lakhs such persons), while the remaining 2.59 lakhs were graduates with general education (from a stock of 18.41 lakhs such persons). Thus the incidence of unemployment among graduates with general education was higher than that among technically qualified persons.

9.3 According to G-series tables of the 1971 Census, the average period of waiting for a male graduate before getting employment was 12.9 months, as against 14.8 months for a female graduate. Similarly, while a male graduate in engineering had to wait on an average for 11.4 months to get a job, a male graduate in arts had to wait for 16.0 months to get a job. Such average waiting period for a male diploma-holder in engineering and technology came to 16.3 months. The position of certificate holders was still worse, the duration of the waiting period being more than 20 months. The details regarding the duration of the period of unemployment for different levels of graduates and diploma-holders are given in Appendix-XV(b).

Expansion of Education

9.4 Besides the present stock of educated unemployed, it is necessary to deal with the problem of those who are receiving education at various levels at present and would be joining the labour force in the near future. The number of persons receiving education has increased substantially since the country attained independence. As against 7.1 per cent of the population receiving education in 1951, about 15 per cent are at present on the rolls of all educational institutions. The total enrolment at different stages of education and the out-turn at the end of each stage is given in Table 22 below, which shows at a glance the rapid expansion of education during the period from 1950-51 to 1970-71.

It is seen that the enrolment of students has increased substantially at every stage of education. While in the case of elementary and secondary education, the enrolment increased by 32.3 per cent and 53.9 per cent respectively during 1951-56, the corresponding increase in case of university education during this period was 70.5 per cent. During the period of the Second Plan (1956-61), the rate of quinquennial increase in the enrolment in primary and secondary stages of education was 41.5 per cent and 53.7 per cent respectively, as against 95.5 per cent in higher education. Similarly, during the period 1961-66, the rate of increase in the primary, secondary and university stages of education came to 46.3 per cent, 74.6 per cent and 101.14 per cent respectively. During the period 1966-71, the rate of increase in enrolment is estimated to be 18.1 per cent in case of primary, 44.4 per cent in case of secondary and 113.1 per cent in case of higher education. It will be seen that while the rate of growth of university education has been rapidly increasing over each five year period, the rates of increase at the primary and secondary stages of education has been comparatively lower. In fact, during the last quinquennium, the rate of growth at the primary stage fell to 18.1 per cent as against 46.3 per cent in the preceding quinquennium, while in case of secondary education it fell to 44.4 per cent as against 74.6 per cent.

Similarly, the out-turn of educational institutions has increased at all levels. The out-turn at the end of the primary stage increased from 19.55 lakhs in 1951 to 64.50 lakhs in

*Technical Manpower; Bulletin of the Division for Scientific & Technical Personnel, CSIR April 1972 (page 2).

1971. At the end of the middle stage, the out-turn grew from 6.30 lakhs to 17.00 lakhs during the same period. The out-turn of matriculates and equivalent also increased

from 2.41 lakhs in 1951 to about 11.00 lakhs in 1971. Similarly, the out-turn of graduates and above in all faculties increased from 0.63 lakhs in 1951 to about 3.25 lakhs in 1971.

TABLE 22—Enrolment and out-turn

(Figures in thousands)

Stage of education/item	Year				
	1950-51	1955-56	1960-61	1965-66	1970-71*
(1)	(2)	(3)	(4)	(5)	(6)
1. Primary stage :					
(a) Enrolment in classes I-V	19155	25167	34994	50471	58893
(b) Out-turn of primary stage	1955	2163	3161	4648	6450
2. Middle stage :					
(a) Enrolment in classes VI-VIII	3120	4293	6705	10532	13121
(b) Out-turn of middle stage	630	933	1591	1617	1700
3. Secondary stage :					
(a) Enrolment in classes IX-XI/XII	1220	1878	2887	5042	7280
(b) Out-turn of matriculates and equivalent	241	429	623	1057	1100
4. University stage :					
(a) Enrolment in intermediate/pre-university	221	396	458	623	720
(b) Out-turn of pre-university/intermediate	79	132	208	221	235
(c) Enrolment in degree classes (general education)	105	179	350	704	1500
(d) Out-turn of degree classes (general education)	39	67	118	165	215
(e) Enrolment in technical higher education and professional education	98	161	287	759	1400
(f) Out-turn of technical higher education & professional courses	24	36	60	83	110

Source : Ministry of Education and Social Welfare.

*Figures for 1970-71 are estimated.

Demand and Supply of Educated Manpower

9.5 The substantial expansion in the field of education, particularly at the levels of matriculates and above without a corresponding increase in employment opportunities has led to the problem of imbalance between the out-turn of educated persons with secondary and university education and the demand for them, resulting in surpluses of educated manpower in the country. So far as technical education is concerned, the rapid expansion that took place since the beginning of the Third Plan was due to the deliberate increase

in the intake capacity of technical institutions in view of the increased requirements of the organised sector and defence as then estimated. However, the increase in the admissions in the technical institutions turned out to be much in excess of the increase in the requirements of the trained technical persons. There is no doubt, therefore, that the inadequate increase in employment opportunities due to the slow rate of economic growth has been responsible for creating the imbalance between the demand and supply resulting in the surpluses of educated manpower.

9.6 The Directorate of Manpower and the Institute of Applied Manpower Research have been undertaking a number of studies relating to the demand and supply of educated manpower of selected categories like engineers, doctors, teachers, etc. A comprehensive review of the total manpower requirements was, however, made by the Education Commission set up by the Government of India in 1964. The Commission utilised the estimates of manpower requirements prepared by the Planning Unit of the Indian Statistical Institute and the Unit for Economics and Statistical Studies of the London School of Economics in collaboration with the Perspective Planning Division of the Planning Commission. These estimates were based on an assumed rate of growth of the economy of 6 to 7 per cent. The supply of the educated persons was estimated by the Education Commission on the basis of the 1961 Census data and the subsequent out-turn of the educational institutions projected on the basis of the trends in such out-turn at different levels of education. The assessment of the supply and demand position made by the Commission indicated that the stock of educated manpower was in excess of manpower needs and that the problem would assume serious proportion from the middle of seventies onwards and that by 1986 the number of matriculates would exceed the requirements of the organised sector of the economy by about 4 million, while the surplus number of graduates would be about 1.5 million. However, the rate of economic growth assumed in the estimates of requirements has not materialised and is not likely to be achieved at least during the current decade. On the other hand, the actual out-turn at the secondary and higher stages of education has exceeded the earlier expectations. As a result, the size of the surplus of educated manpower is likely to be even greater than what was estimated by the Commission. This would, therefore, indicate the need for a further review and up-dating of the estimates made by the Education Commission in the light of the latest data available on the subject.

Causes of Educated Unemployment

9.7 There are several factors which have tended to accentuate the problem of the educated unemployed, particularly, of the technically qualified persons. A major factor has been the ever-growing rush for higher education, in the fond hope of raising their social status and economic position, in case of the majority of students. Year after year an increasing numbers of matriculates and

graduates are being produced; and large numbers of them are not able to find gainful employment, while others have to wait for long periods before getting themselves fixed up in life. In the field of general education, the unrestricted admissions to the institutions of higher education and the general preference of employers for graduates in making appointments even to posts where the minimum qualification is matriculation, have contributed to the rapid growth of the number of students taking up degree courses. In the case of technical education, as already mentioned, the intake capacity of technical institutions was specially increased to cater to the estimated requirements of defence as well as of the organized sector on the assumption of a high rate of economic growth. But, the rate of growth did not come up to the level anticipated earlier resulting in the increasing problem of absorption of technical persons. Secondly, the slowing down of the rate of industrial growth and specially the recession in 1966-67 and 1967-68 and the inadequate recovery in subsequent years, have weakened the pace of growth in the tertiary and services sectors, thereby, resulting in severe curtailment of employment opportunities for educated persons, particularly, those with general education. With the target of 5.5 per cent growth envisaged in the Fifth Plan, the employment opportunities likely to be thrown up by the organised sector would fall far short of the increasing supply of educated manpower. It would, therefore, be necessary to promote the rapid growth of the unorganised sector of the economy so as to create more job opportunities for the educated unemployed as also to foster self-employment among them. For this, the quality and content of the educational courses also need to be oriented so that the products of educational institutions are more employable and can fulfil the requirements of both the organised and unorganised sectors. They also need to be given training in various aspects of entrepreneurship such as business management, accountancy, etc., in order to be successful in the self-employed sector.

Measures already taken — an assessment thereof

9.8 The Central Government initiated in 1971-72 some special schemes to create additional employment opportunities for the educated unemployed. These schemes were to be implemented by various ministries of the Central Government in collaboration with the state governments. As against a budget provision of Rs. 25 crores in 1971-72, an amount of Rs. 9.8 crores was actually releas-

ed to the state governments. The allocation for these programmes during 1972-73 was around Rs. 42 crores. These programmes were expected to provide employment to 39,000 persons by the end of 1971-72 and to about

64,000 persons during 1973-74. Table 23 below shows at a glance the progress of expenditure on these special schemes for the educated unemployed initiated by the Central ministries.

TABLE 23—Progress of expenditure on special schemes for educated unemployed initiated by Central Ministries

		(Rs. in crores)	
S. No.	Schemes	1971-72	1972-73
		Amount released	Amount allocated
(1)	(2)	(3)	(4)
	Ministry of Education :		
1	Expansion and improvement in the quality of Elementary Education	2.80	30.00*
	Ministry of Industrial Development :		
2	Financial assistance to Small Entrepreneurs	6.39	6.50
	Ministry of Irrigation & Power :		
3	Rural Engineering Surveys	0.13	2.85
	Ministry of Agriculture :		
	(Department of Agriculture)		
4	Agro-service Centres	0.14@	0.76
	Department of Cooperation :		
5	Expansion of Consumer Cooperative Stores	0.16	0.50
	Ministry of Shipping & Transport :		
6	Investigation of Road Projects	0.19	0.90
	Ministry of Health & Family Planning :		
7	Setting up of Design Units for Rural Water Supply	—	0.44
	TOTAL	9.81	41.95

Source : The Planning Commission publication entitled 'Towards Self Reliance'.

9.9 An assessment of these special programmes for the educated unemployed is attempted below :

(i) *Expansion and improvement in the quality of elementary education*

Under this scheme, a sum of Rs. 4.4 crores was provided in 1971-72 for the expansion and improvement of elementary education including the appointment of 30,000 elementary school teachers and 240 inspectors, and for the provision of mid-day meals to 8.6 lakh children, the distribution of free text books to 9 lakh children and the introduction of

work-experience in 1000 middle schools. While the amount actually released to the state governments was Rs. 2.80 crores, the physical target envisaged in the programme is reported to have been virtually achieved. A provision of Rs. 12 crores was made in the budget for 1972-73 for the continuance of the scheme; in addition, a provision of Rs. 18 crores was also made for the appointment of 30,000 more teachers and 240 additional inspectors and for the distribution of free text books, the provision of mid-day meals and the construction of class rooms for primary schools.

*Including the additional Rs. 18 crores for expansion of the programme in 1972-73.

@Expenditure is Rs. 0.29 crores up to July, 1972.

(ii) Financial assistance to small entrepreneurs

Under this programme six schemes have been prepared to provide financial assistance to the educated unemployed, particularly technically qualified persons, for starting their own industries. A sum of Rs. 6.39 crores was released to the state governments and union territories for these schemes during 1971-72. These schemes were expected to generate 50,000 additional jobs, including 1500 for technical persons. For 1972-73, a budget provision of Rs. 6.50 crores was made for these schemes. Under this programme, a scheme entitled 'Cooperatives of Technicians' has been taken up by the Government of Kerala and a number of projects have been initiated by the Engineering Technicians Co-operative Society of Kerala (ENCOS), an important project among these being the manufacture of scooters. Both the Central and the state governments give financial assistance to this society. This is a promising scheme which has been recommended for adoption by other states. Nationalised banks are also providing funds to the educated unemployed for promoting self-employment among them. A reference to the scheme for educated unemployed under the Ministry of Industrial Development has also been made in Chapter VIII of this Report.

(iii) Rural Engineering Surveys

Under this programme, surveys will be undertaken in rural areas of chronically drought-affected districts for preparation of schemes for the provision of irrigation, electricity, drinking water and road facilities and also for the improvement of land and extension of improved water management practices. By the end of the Fourth Plan, 550 survey parties will be in position. The employment potential of the scheme in a full year is estimated to be about 5,600 persons, including 1200 engineering graduates and 550 agricultural graduates. The data made available by the blue prints prepared during these surveys will be of help in formulating programmes of greater development and more employment opportunities in future. During 1971-72, 36 parties were expected to be in position, as against a target of 200 because of the delayed sanctioning of the scheme. In that year, as against an allocation of Rs. 33 lakhs, only Rs. 12.89 lakhs could be sanctioned for the implementation of this scheme. For 1972-73, a sum of Rs. 2.85 crores has been provided. A reference to this scheme has also been made in Chapter V of the Report.

(iv) Agro-service Centres

This scheme provides for the establishment of agro-service centres in order to create employment opportunities for engineers, technicians and agricultural graduates. In addition to providing consultancy services, these centres will hire out tractors and other agricultural implements and assist in land development and the installation of pump-sets. A sum of Rs. 397.82 lakhs was allocated in the Fourth Plan for this scheme, including the provision for training programmes, etc. During 1971-72, only 95 agro-service centres were set up, while 305 entrepreneurs got training at the regional training centres. It is proposed to set up one training institute each in 14 states. During 1972-73, an amount of Rs. 75.91 lakhs was provided for this scheme. By the end of July 1972, 221 agro-service centres were functioning in the country. The total expenditure incurred on this programme up to July 1972 was Rs. 28.61 lakhs. This scheme is also being referred to in Chapter V of this Report.

(v) Expansion of consumer cooperative stores

This scheme is intended to provide assistance for encouraging the growth of 40 wholesale central consumer cooperative stores already in existence and for the establishment of an equal number of retail centres. A provision of Rs. 15 lakhs and Rs. 50 lakhs was made during the years 1971-72 and 1972-73 respectively.

(vi) Investigation of road projects

The object underlying this scheme is the investigation and preparation of project reports for the roads in the central sector which are to be considered for inclusion in the Fifth Plan. This scheme will not only make available a large number of fully investigated road projects ready for implementation in the Fifth Plan period but will also create additional employment for technically qualified persons. This scheme is estimated to provide employment for 134 graduate engineers, 30 diploma-holders, 150 technicians and 500 semi-skilled and unskilled workers. The allocation during 1971-72 was Rs. 30 lakhs, while a provision of Rs. 90 lakhs was made during 1972-73. The actual amount released during 1971-72 was Rs. 19 lakhs.

(vii) Design units for water supply

This scheme provides for 100 per cent central assistance for setting up planning and design cells in the states for the preparation

of detailed plans and estimates for rural water supply schemes in areas considered as 'permanently disadvantaged'. In all, 1,100 regional piped water supply schemes as also a number of individual schemes covering about 14,000 villages are expected to be prepared by these cells. The implementation of this programme is likely to generate employment opportunities for 407 engineers and 420 other categories of educated unemployed. While no expenditure could be incurred on this scheme during 1971-72 because of delayed sanction, etc., a provision of Rs. 46 lakhs was made for it during 1972-73. Out of the latter, a sum of Rs. 6.10 lakhs was released by the end of September 1972 and employment opportunities were created for 136 engineers and 169 other persons.

Some further measures suggested

9.10 The appropriate and long-term remedy for the present problem of educated unemployed lies in creating more employment opportunities by accelerating the rate of economic growth. The direct contribution of the educational system in creating employment opportunities can only be of a limited size. It can no doubt absorb a part of the stock of educated unemployed as teachers, inspectors, educational administrators, ministerial staff, etc., by expanding existing educational facilities, particularly at the elementary stage. But in the long run the educational system needs to be linked with the employment opportunities and the occupational pattern of the economy in order to increase the degree of employability of its products. Some suitable programmes in this regard are being suggested in subsequent paragraphs.

Expansion of elementary education as a programme for employment generation

9.11 The expansion of elementary education is one of the programmes within the education sector which can generate large employment opportunities for the educated unemployed, particularly teachers, inspectors and clerical staff. One of the directive principles of the Constitution enjoins upon the State to endeavour to provide within a period of ten years from the commencement of the Constitution, free and compulsory education for all children until they complete the age of 14 years. But this directive, which was intended to be achieved by 1960-61, has not so far been achieved; and at the present rate of expansion of primary education it may not perhaps be possible to achieve the

goal even by 2000 A.D. Keeping in view this directive, the Fourth Plan stressed the expansion of facilities for elementary education, particularly for backward areas and backward communities as well as for girls. The programme of expansion aimed at raising the enrolment of the children of the age-group 6-14 from 67.76 million at the end of the Third Plan to 87.02 million in 1973-74 so as to cover 69.8 per cent of the population of the children of this age-group (85.3 per cent of the children of the age-group 6-11 and 41.3 per cent of those of the age-group 11-14). However, the mid-term appraisal* of the Plan revealed a great short-fall both as regards the expenditure incurred on elementary education and as regards the physical progress made in respect of enrolment, school buildings, equipment, mid-day meals, etc. According to this appraisal, by the end of 1971-72, only 37.7 per cent of the total outlay for elementary education was expected to be utilised; and the enrolment would increase only by about 2 per cent each for the children of the age-groups 6-11 and 11-14 during the period of three years. There was no appreciable increase in the expenditure on schemes for encouraging the enrolment of girls or children of backward communities. The coverage under the mid-day meals scheme remained at 11 million pupils. Very little progress was made in the construction of additional class-rooms or in the provision of equipment.

9.12 Recognising the need for greater efforts to stimulate the programme of elementary education both from the point of view of an early fulfilment of the Constitutional directive and the absorption of a part of the educated unemployed as teachers, inspectors, etc., the Government of India has, as already mentioned, launched a special programme of providing assistance to the state governments for the appointment each year from 1971-72 onwards of 30,000 teachers, 240 inspectors of schools and a number of work-experience teachers, and for an improved programme of mid-day meals, etc., under the scheme of expansion of elementary education. However, the target envisaged in this programme would fall short of the need for the absorption of 1.50 lakh trained teachers at present unemployed as well as equal number who would be added as the annual out-turn of training institutions. In this connection it would be relevant to mention that in our Interim Report we suggested a phased programme of expansion of elementary education so as to provide

*The Fourth Plan Mid-Term Appraisal, Vol. II, Planning Commission.

educational facilities for 95 per cent of the children of the age-group 6-11 and for 45 per cent of those of the age-group 11-14 by 1975-76. After further consideration, we would now suggest that a comprehensive and phased programme of additional enrolment may be formulated for the primary and middle stages of education to be attained by the end of the Fifth Plan with the objective of achieving 100 per cent enrolment of the children of the age-group 6-11 and 75 per cent of those of the age-group 11-14. Besides helping in the implementation of the Constitutional directive, this programme would, it is expected, generate direct employment opportunities for nearly 1.50 lakh teachers, 1200 assistant inspectors of primary schools and ministerial staff every year, in addition to the requirements for normal replacement. The other major programmes for the improvement of elementary education like provision of mid-day meals, expansion of science education, improvement in training of teachers, special programmes for girls' education, construction of school buildings, conversion of single-teacher into multi-teacher schools, etc., should also be extended in accordance with the requirements of the states. In this connection, we would like to emphasise that steps should be taken to ensure the proper and effective implementation of these programmes which would, besides improving the quality of elementary education, generate direct employment opportunities, particularly, for the educated unemployed.

9.13 Statement-1 at Annexure (1) shows the present statewise position according to their ranking in respect of the enrolment of children of the age-group 6-11 as also the targets proposed to be achieved by the end of the Fifth Plan. By the end of 1972-73, the enrolment in classes I-V would be about 640 lakhs or nearly 82 per cent of the population of the age-group 6-11 for the country as a whole. By the end of the Fifth Plan, i.e., 1978-79 this enrolment would have to be increased to at least 877 lakhs in order to achieve the proposed target of 100 per cent enrolment of the children of this age-group. This would involve the additional enrolment each year of nearly 40 lakh children of this age-group as against the average increase of 25 lakhs at present.

9.14 Similarly, Statement-2 at Annexure (2) shows the present statewise position according to their ranking in respect of achievement regarding the enrolment of children of the age-group 11-14 as also the targets proposed to be achieved by the end of the Fifth Plan. By the end of 1972-73, the enrolment in

classes VI-VIII would be of the order of 148 lakhs or 40 per cent of the population of the age-group 11-14. This would have to be increased to about 368 lakhs by 1978-79, i.e., an overall increase of 220 lakhs, in order to achieve the proposed target for enrolment of 75 per cent of children of this age-group. This would involve the additional enrolment every year of nearly 36 lakh children of this age-group as against the present average annual increase of 9 lakhs. This is a massive programme and the present administrative facilities may not be adequate for its implementation. It is also likely that the required number of children of this age-group may not be forthcoming for attending regular classes, as many of them are compelled to leave school after the lower primary stage in order to make some contribution, howsoever meagre, to the low earnings of their families. In these circumstances, we consider, that the additional annual enrolment of 36 lakh children be divided into two categories—one of 15 lakh children to be enrolled in regular classes and the other of the remaining 21 lakhs to be enrolled in part-time classes as worker-students. Nevertheless, the task involved in providing educational facilities at the upper primary level for an additional number of children at four times the present annual increase would be a stupendous one, and well-concerted efforts would be needed to effectively implement this programme.

9.15 As the development of primary education shows great variation from state to state, the programme for its expansion will have to be drawn up separately in respect of each state, keeping in view the stage of development already reached and the peculiar features affecting its development in certain areas.

9.16 One of the major difficulties in the way of the provision of universal primary education to the children of the age-group 6-14 has been the limited financial resources available for the expansion of primary education. The average annual cost for educating a child in the lower primary stage, based on the present average salary of Rs. 200/- per teacher plus 10 per cent as non-teaching costs, comes to Rs. 72/- if the teacher-pupil ratio is taken as 1:40. The average annual cost of educating a child in the upper primary stage on the formula of 50 per cent more cost than at the lower primary stage comes to about Rs. 105/- per student. On the basis of these costs, if universal education were provided to all children of this age-group numbering about 11.6 crores in 1970-71, the total yearly expenditure required would have been

about Rs. 960 crores, which would exceed even the total expenditure of about Rs. 950 crores incurred on education as a whole in that year. In other words, it would mean our spending about 3 per cent of the national income on universal primary education alone, whereas the present investment on education as a whole comes to this percentage. Keeping in view the difficulty of resources and the need for effective implementation of the proposed programme of expansion of primary education, we would indicate below some measures that could be adopted in order to bring about some reduction in the cost. Nevertheless, from various points of view we would emphasise that a high priority should be accorded to this programme.

9.17 The following are among the measures that could be considered for effecting reduction in the cost, subject to administrative feasibility. The first two of these had been briefly outlined in our Interim Report, but we are again including them here for facility of reference.

(i) The adoption of double-shift system in classes I and II

Nearly 60 per cent of the total enrolment at the primary stage is in classes I and II. If the double shift system is adopted in these classes, as recommended in the Fourth Plan, the pupil-teacher ratio would be increased, resulting in a reduction in the average annual cost. This system was adopted in England, during the early stages of the expansion of elementary education in that country; and it has also been successfully adopted in Kerala.

(ii) Part-time Education

Another measure, which was recommended by the Education Commission and the importance of which was stressed in the Fourth Plan, would be to provide part-time education to all children who cannot attend schools on a full-time basis. At present, nearly 75 per cent of the children drop-out from schools before reaching class VIII. Most of these children are the unfortunate victims of poverty and they are impelled to leave schools in order to lend a helping hand to their families in increasing their earnings. However, if a programme of part-time education with suitable hours of schooling is adopted, these children could be enabled to complete their elementary education while the cost of per pupil would be reduced by about 50 per cent. This programme can be organised in the existing school buildings with existing equipment and the services of a large number of educated unemployed could be utilised by giving them a suitable honorarium.

(iii) Community Participation

Another step in this connection would be to involve the local community, organisationally and financially, in the development of primary education; this will assist in securing the much needed resources for the expansion programme of primary education. In this connection, the experiment carried out by the Government of Tamil Nadu in seeking the cooperation of the local community for providing school buildings etc., would have relevance. This system should be organised and expanded in such a way that all the non-teaching costs, such as the construction and maintenance of school buildings, the provision of free text-books, clothing and mid-day meals to the needy children and the provision of playgrounds, might be borne by the local community.

Further in order to ensure the proper implementation of the programme of expansion of elementary education in the states, it is essential to ensure that the outlay provided for elementary education, including such portion of central assistance as may be earmarked for these programmes, is in fact spent on them and is not diverted elsewhere.

9.18 Another major difficulty in the way of effective implementation of the programme of universal elementary education is the problem of drop-outs. Of every 100 children that are enrolled in class I, only about 40 are able to reach class V and about 25 reach class VIII. This is mainly due to: (i) poverty of the parents who are forced to withdraw their children from schools; and (ii) dull and uninspiring character of teaching most of our primary schools which do not attract and/or fail to retain children for an adequate period. To tackle this problem, not only the quality of primary education needs to be improved but other remedial measures need to be adopted to provide relief and assistance to the children of poorer sections. In this connection, it may be mentioned that the Education Commission suggested the extension and effective implementation of improvement programmes such as provision of mid-day meals, free supply of text-books to the needy children, provision of greater facilities for the children belonging to scheduled castes and scheduled tribes, special programmes for girls' education, improvement in the quality of teachers, etc. In addition, the condition of school buildings would need much improvement. As the mid-term appraisal of the Fourth Plan shows, the progress made in the implementation of these programmes has been tardy, and we feel that the speedy and effective implementation of these programmes is necessary

for improving the quality of primary education. A phased programme of construction of new school buildings, should, wherever necessary, be devised and implemented; the proper maintenance of existing school buildings should also receive due consideration. This programme would contribute to a better quality of primary education and would also generate some employment opportunities. Another measure which can help in reducing the number of drop-outs at this stage of education is the adjustment of the school terms and vacation periods and of the working hours of schools, specially in the rural areas, having regard to the agricultural seasons and the time of the day when children are needed in the farm or at home to help their families in their economic activities.

9.19 Another factor affecting the quality and efficiency of the primary education is the existence of a large number of single-teacher schools, as it is not physically possible for a single person to attend simultaneously to teaching work in all the classes. About 35 per cent of primary schools are single teacher schools which are to be found mostly in rural areas. This system should, in our opinion, be reviewed and the existing single-teacher schools should wherever possible be converted into multi-teacher schools. Besides improving the quality of education in such schools, it will offer more employment opportunities for teachers.

9.20 If the programme as suggested above is implemented, it would create direct employment opportunities for the educated unemployed as teachers and inspectors of schools and in other supervisory and clerical positions. According to this programme, an additional 40 lakh children will have to be enrolled in the lower primary stage of education and 15 lakh children in the regular classes of the upper primary stage every year upto 1978-79. Based on the present teacher-pupil ratios of 1:40 and 1:30 in the lower primary and upper primary stages respectively, nearly one lakh teachers would be required each year for the lower primary stage and about 50,000 each year for regular classes of the upper primary stage, i.e., a total of 1.50 lakh teachers each year. This would assist in solving to a large extent the problem of trained teachers. In succeeding years, it would also provide employment opportunities to nearly 1.5 lakh trained teachers produced by the training institutions each year. In addition, this programme would provide on a continuing basis employment opportunities for about 1200 assistant inspectors of schools at

the usual rate of one inspector for 125 teachers. The programme of providing part-time education to 21 lakh children would provide additional employment opportunities to the educated unemployed, who can be appointed as part-time teachers for students attending the part-time classes. The suggested improvement programme of teachers' training and the conversion of single-teacher schools into multi-teacher schools will also open further employment opportunities for teachers. The financial implications of the programme have been worked out in Annexure (3).

Adult Education

9.21 Another programme within the education sector which can generate direct employment of a sizeable order is the programme of adult literacy. A number of programmes for eradicating illiteracy in the country have been taken up from time to time by the Central Government and the state governments, but no coordinated and concerted efforts on a massive scale seem to have been made in this direction. As a consequence, although the percentage of literacy has increased from 24.0 per cent to 29.4 per cent in the decade from 1961 to 1971, the number of illiterates in the country has shown an increase from 333 million in 1961 to 386 million in 1971. In particular, the problem of illiterates in the age-group 15-44, whose number is about 160 million, merits special consideration from the point of view of the development of human resources so that their productivity on farms and in factories may improve.

9.22 In view of the importance of the programme of adult literacy, as mentioned above, we are of the view that a phased programme of adult literacy should be undertaken so that within a period of 10 to 15 years illiteracy among adults could be practically removed from the country. To start with, it is suggested that a suitably phased programme be prepared for the Fifth Plan so that at the annual rate of 10 million adults of the age-group 15-44, at least 50 million such persons are covered by the end of the Plan. This programme should be in addition to the existing programme of 'functional literacy' which is proposed to be expanded in the Fifth Plan. This programme is expected to create job opportunities in the form of appointment as teachers for about 80,000 to one lakh persons throughout the Fifth Plan period. Before this programme could be undertaken, however, it would be essential that all the preparatory arrangements, including administrative

arrangements, such as the training of the requisite number of teachers, accommodation for literacy classes, text-books and other equipment required for conducting these classes, etc., are made. For making this programme a success, a comprehensive follow-up programme for the supply of literature and the establishment and maintenance of libraries for the neoliterates would also have to be initiated.

9.23 With classes of short duration of one and a half hour in the evening, part-time teachers could be appointed for this work and each teacher could teach two classes each day with the course extending over a period of six months. With a teacher-pupil ratio of 1:30 to 1:35 each teacher could cover 60 to 70 adults over a period of six months or 120 to 140 adults over a full year. To cover the target of 4 million persons for the year 1973-74 referred to in our Interim Report, about 30,000 teachers could be employed in that year. Thereafter when the programme is extended during the Fifth Plan period to cover 10 million persons every year, the number of teachers who could be employed under this scheme would be about 80,000. Besides, the functioning of so many part-time teachers would require the provision of separate supervisory staff who should be appointed specifically for this purpose and who should not be burdened with the normal educational work of the district. While it would be desirable to arrange for part-time teachers who can take two classes each day, it may be necessary in certain areas, depending on the convenience of the trainees, to arrange for only one class in the evening for which purpose a larger number of part-time teachers taking one class would have to be employed. Thus this programme would create sizeable job opportunities for the educated unemployed in rural areas particularly for matriculates and equivalents whose number is quite large. These part-time teachers could be remunerated through the payment of an honorarium which could be fixed at a lower level than the salary normally paid to the regular primary school teachers and which may be Rs. 100/- per month for those taking two classes each day. Those teachers who are taking only one class could be paid a small remuneration. Adding a sum of Rs. 10/- per adult student (to cover the other costs in items like slates, note-books, primers, etc., including Rs. 2/- for the follow-up programme), the total annual expenditure per teacher taking two classes daily could be placed at Rs. 2,500/-. For the period upto the end of the Fifth Plan, the total expenditure on this programme is estimated to be of the order of Rs. 100.00

crores, i.e., Rs. 20 crores per annum. This programme, if properly implemented, could go a long way towards reducing illiteracy to a considerable extent on the one hand, and opening avenues of gainful employment for approximately one lakh educated unemployed.

Short-term measures

9.24 A few short-term measures that can help in easing the problem of the educated unemployed may be mentioned here. Some of these measures may be already in operation in some parts of the country. However, the need for their adoption on a wider scale is being emphasised in view of their importance from the overall angle of employment generation.

- (i) Government should consider the need for some form of legislation which would ensure that every industry employs a number of engineers and technicians determined on the basis of its scale of production and taking into consideration factors such as manufacturing capacity, technical processes employed, total number of workers, etc. There is some evidence to show that many industrial units employ a smaller number of engineers than what the scale of their operation would justify. In the view of our Working Group on Education, this is one of the main reasons for our low industrial productivity.
- (ii) Our Working Group have observed that many government contractors either do not employ qualified engineers, or if they do, such persons are not employed in adequate numbers, for executing the works contracts awarded to them by the government departments. A number of state governments have, we understand, issued instructions requiring the appointment of qualified engineers by the contractors and also prescribing the number of engineers in relation to either the value or the size of the works contract. We feel that similar instructions could also be issued by the governments of other states, where such instructions do not exist. Further, these instructions would need to be enforced effectively so as to promote employment opportunities for engineers and ensure a proper

ratio being maintained between the number and level of qualifications of the engineers on the one hand and the size of the works contract on the other. It would be still better if qualified engineers are encouraged to take up government works contracts either individually or on a cooperative basis. The encouragement from the state governments could be in the form of concessions in certain matters, such as the price of tender forms and the amounts of deposits and advances.

(iii) Planning units for preparing engineering designs and project reports may be created in appropriate departments, where these are not in existence. These units should undertake in large numbers advance surveys and investigations of engineering and construction projects and the preparation of project reports. The surveys and investigations of a number of irrigation and other projects for the formulation and implementation of Plan programmes can create a large number of employment opportunities. According to the available information, one division can employ nearly 25 engineers and diploma holders. In the year 1972-73, nearly 3,600 technical personnel were proposed to be appointed under this scheme. There is considerable scope for extending this scheme by opening a large number of divisions during the Fifth Plan so as to undertake the surveys and investigations of the projects to be taken up during the Fifth Plan as well as subsequently. In this connection mention may also be made of the proposed scheme relating to the National Water Grid, which has good employment potential. The survey and investigation of thermal power projects and the preparation of project reports can also create a number of employment opportunities for the technically qualified persons. The present proposal for a nation-wide survey of natural resources like groundwater, minerals, forests, marine-wealth, etc., also holds out a good prospect of providing employment to the educated unemployed particularly technical personnel.

(iv) Research and development activities in the country should be expanded substantially. For this purpose the existing facilities at universities and other research institutions should be utilised to the maximum extent. This measure will, apart from generating job opportunities for a number of highly qualified scientific and technical personnel, also help the country in developing new industrial processes and techniques, in import substitution and in the development of natural resources. At present, India is spending only 0.54 per cent of its Gross National Product (GNP) on research and development programmes and this outlay is intended to be raised to one per cent by 1980. We feel that the activities in this field need to be stepped up quickly in the national interest for the development of modern technology. In this connection it would be relevant to mention that in developed countries like the USA and the USSR the corresponding percentage of expenditure on research and development was 3.2 and 3.8 per cent of the GNP, respectively, in 1969.

(v) The present surpluses of educated personnel in the country are due in part to the slow rate of growth of the economy and the limited capacity of the organised sector of the economy to absorb the out-turn of the educational institutions. There is, therefore, a need to tap the unorganised sector of the economy, where great potential now exists for absorbing such personnel. Suitable training and orientation programmes may be drawn up in each area for the local talent among the educated unemployed and these should be geared to the expanding activities and needs of the rural areas with a view to promoting self-employment among the educated unemployed. The programmes should be drawn up in such a way that a person intending to set up a new industry or workshop after training may induct in his group persons with different skills so that a viable group of technicians is formed for working the project. With the introduction of new techniques in agriculture, the scope for opening new labour-intensive industries, workshops for

the repair and maintenance of agricultural implements, pumps and pump-sets, etc., has widened. Such entrepreneurship should be encouraged by the government by providing financial and other facilities. As a result of the improvement in the rural economy there is also a scope for opening new shops and retail centres for supply of agricultural inputs such as seeds, implements, fertilisers, etc., as well as for the sale of goods of mass consumption like utensils, cloth, shoes, furniture and household articles, and sophisticated goods like electric appliances, radios, transistors, cycles, scooters, etc. The technical personnel in the rural areas may also be encouraged to open repair and maintenance workshops for household and other articles. These activities, besides opening large avenues of self-employment of the educated unemployed, will ensure the effective utilisation of both human and financial resources in rural areas, promote the betterment of these areas and improve the quality of rural life.

- (vi) The Ministry of Industrial Development at the Centre have formulated recently a model scheme of providing financial assistance for opening small industries as a part of the crash programme for the educated unemployed as already referred to in para 9(ii) of this chapter. This is a good scheme and state governments should take the initiative in fostering and encouraging self-employment among engineers, technicians and the educated unemployed. Some of the important factors required for promoting self-employment in the small scale industrial sector are the provisions of training in entrepreneurship, availability of raw materials, consultancy and technical guidance and market assistance. Some facilities for these do exist but these need be further improved and expanded for the effective implementation of the programme. This scheme has been accepted by quite a number of states though it is being implemented in different forms by different states. The methods adopted by the states

of Kerala and Gujarat for implementing this scheme may serve as a guide for other states. Although this programme is intended to provide encouragement and financial assistance to all educated unemployed, the emphasis has so far been laid on engineers and technicians only. It is, therefore, suggested that the original objective of the scheme may be kept in view and encouragement and assistance should be given to non-technical educated persons also to set up as self-employed persons in suitable industries for which they have inclination and aptitude.

9.25 We feel that the programmes of expansion of elementary education and of adult literacy and the short-term measures suggested above, can, if implemented, generate employment for nearly 5 lakh educated persons every year. It is suggested that these programmes should be so formulated that the benefits of these schemes are equitably distributed among different regions, more emphasis being laid on rural and backward areas, where the problem is more acute.

Long-term measures

9.26 Although the education sector as such can do little in creating employment opportunities in the other sectors of the economy, it can help in improving the employable skills of its products and indirectly stimulate the generation of employment through the development processes by facilitating the adoption of advanced technologies and the production of newer and better types of goods and services. In order to improve the employability of its products, the present educational system needs to be revamped so as to make education job-oriented with a technical bias right from its elementary stage. Some long-term measures are suggested in the subsequent paragraphs for linking up the educational system with economic development and employment generation as far as possible.

Elementary education

9.27 In the field of elementary education, as already suggested, every effort should be made to expand schooling facilities for the children of the age-group 6-14. This programme, besides creating a large quantum of direct employment opportunities, will help in fulfilling the Constitutional directive of universal elementary education. But this is not all. The spread of elementary education

or basic literacy helps in the overall economic and social development of the community at large. It also helps in raising the general social awareness and level of intelligence of the people, thereby improving the quality of our human resources particularly in the rural areas. It results in leavening the general comprehension and understanding of new ideas and promotes greater receptivity to new techniques and innovations. The expansion of primary education would, therefore, prove beneficial for the development of the economy in the rural areas and for increasing the productivity of the rural community. It would also have a healthy impact on the programmes of social welfare, like family planning, child welfare and other health measures.

But, apart from the programme of expansion of elementary education, the problem lies in the qualitative improvement of this stage of education from the point of view of the employability of its products. A majority of those who have completed the elementary stage of education as well as those who drop-out in the mid-stream, join their parental occupations; and they add to the huge number of the under-employed in rural areas or of the unemployed in urban areas, because the type of education received by them has not equipped them for the gainful employment. It is, therefore, desirable to reorient the methodology of teaching in elementary classes so as to inculcate in the children from the very beginning those basic attitudes and personality traits which are the pre-requisites for employment preparation, employment adaptation and employment creation. These are industry, respect for manual work, habit of co-operation and team work, initiative, an inquiring mind, power of observation, etc. If the products of elementary education have acquired these basic attitudes and traits to a greater extent, they will be better equipped to effect improvements in their parental occupations, if they join those, or to enter other occupations and thus turn the state of under-employment into one of fuller employment. If a comprehensive programme of work-experience, as recommended by the Education Commission, is introduced in elementary education by all states, it will further help in developing the basic attitudes and traits mentioned above. This will also enable the child to enter the world of work, acquaint him with science-based technology and provide the much-needed corrective to the extremely academic and bookish character of the present education. This work-experience may be imparted to the students

either within the schools or outside. An appropriate organisation would however be needed to impart this type of education outside the schools. There are a variety of media through which work-experience can be given, such as kitchen-gardening, agriculture, paper-work, clay-work, wood-work, metal-work, tailoring, needle-work, electrical gadgets, household appliances, spinning and weaving, etc. The students should also get opportunities to acquaint themselves with the scientific utilisation of raw materials and modern types of implements.

Secondary Education

9.28 As a consequence of the rapid expansion at the elementary stage of education, sufficient expansion would also have to be provided for at the secondary stage of education. However, the content of secondary education should be so oriented that it becomes the terminal stage for the majority of students. This stage of education should prepare its products for entry into economic life. While general education with a programme of work-experience may be allowed upto the tenth class, education should be made vocational in character in the higher classes by introducing diversified job-oriented courses. It may be mentioned that the Education Commission which examined, *inter alia*, this issue suggested a target of diverting 50 per cent students of the higher secondary stage i.e. classes XI and XII to vocational education. Our Working Group have suggested that the programme of vocationalisation should be progressively introduced at the secondary stage after the tenth class so as to achieve the target set by the Commission within a period of ten years. We are strongly of the view that because of the rapid increase in the production of matriculates and graduates with general education, the incidence of unemployment among whom is very high, a stage has been reached when the pace of vocationalisation of secondary education has to be speeded up with a view to attaining the target set by the Commission. This will prevent a large number of students from drifting aimlessly to the institutions of higher general education, improve their skills and enhance their employability in the diversified occupations arising from the economic development of the country and the growth of the national economy.

Vocationalisation

9.29 Vocationalisation of education would involve the introduction of education and training which prepare an individual for a

vocation in future life. The courses of vocational education should be such that at the end of the course, the product should, in general, be ready to fulfil the requirements of industrial and agricultural occupations. There are also other areas where an individual can be employed in gainful occupations such as stenography, salesmanship, marketing, accounting, banking, etc. Among vocations for appropriate self-employment, occupations such as the manufacturing of agricultural tools, small electric appliances, repair of mechanical appliances, repair of radios, servicing of automobiles, manufacture of furniture, weaving, printing, book-binding, manufacture of plastic goods, electronics, etc., can be identified. All programmes of vocationalisation should, however, be linked as far as possible with the local manpower needs and should be operated in close collaboration with the machinery for vocational guidance, the training centres in industry and the employers. In determining the requirements of the various categories of skilled persons, local skill surveys and studies of the employment situation should be carried out periodically in close collaboration with the employing agencies.

Social bias

9.30 In order that the expansion of vocational education should be a success, efforts will have to be made to improve the present social attitudes towards manual work. The majority of students go in for general education in order eventually to secure a white-collar job which confers a better social status than the manual jobs like those of artisans, mechanics and factory workers. In some cases the emoluments, terms of service and working conditions of manual workers are also comparatively less attractive. We, therefore, strongly recommend that steps should be taken to bring about a transformation in the existing social milieu, norms and standards so that more young people are encouraged to go in for training for jobs and occupations involving manual work. Besides other measures that could be taken, we suggest that more scholarships and other concessions should be provided in schools to students taking up vocational education and better emoluments and working conditions prescribed for such jobs and occupations. We are of the opinion that a lead in this matter should be taken by the public sector which could later be emulated by the private sector.

Higher Education

9.31 In the field of higher education, the general criticism is that there has been an unplanned and explosive expansion of education at this level. As mentioned earlier in the chapter, the rate of increase in enrolment at this stage has been substantially higher than at the primary and secondary stages of education where such rates of increase should normally be higher. For example during the period 1966-71, the rate of growth of university education was 113 per cent as against 18.1 per cent in case of primary education and 44.4 per cent in case of secondary education. This top-heavy and lop-sided development of the educational structure has tended to impede the realisation of the main objective of the educational system which should be to provide purposeful, productive and employment-oriented education and training. Selective admission has been suggested in some quarters as a corrective measure for curbing the present rush for higher education. It is also suggested by some that every student should pay the full cost of university education, though it would be necessary at the same time that in the case of students who are qualified but economically handicapped or who belong to scheduled castes and tribes, adequate scholarships, subsidies, grants, etc., should be made available to enable all of them to pursue their studies at the higher education level. In a democratic set-up like ours, it does not appear to be a feasible proposition to impose restrictions on or to regulate by an executive fiat, admission to institutions of higher education. A number of other measures can, however, be adopted which may moderate the pace of expansion of higher education by providing alternative avenues for a number of students who would otherwise rush for admissions to institutions of general higher education. Firstly, the scramble for admission to institutions of higher education would be reduced to some extent by the adoption, as already suggested, of an extensive programme of vocationalisation at the higher secondary stage at which a good percentage of students could be diverted to various vocational and professional courses. Secondly, it should be ensured that adequate standards are maintained in institutions at the secondary stage and that the public examination at the end of the higher secondary stage is of a reasonable standard which should be fairly uniform throughout the country, since as would be readily recognised, it should be the object of public policy to ensure that those who go in

for higher education have the requisite capacity to benefit from it. Thirdly, higher education also should be diversified so as to provide for vocational and professional courses both at the under-graduate and post-graduate levels, such as business administration, electronics, textile technology, automobile engineering, marketing, catering, etc. The Delhi University has, we understand, already taken steps to set up an Institute of Professional Courses. Other universities could also in our view consider the provision of similar facilities for their students.

While these measures should to some extent be helpful, it is necessary to provide a substantial increase in employment opportunities which would more effectively check the aimless expansion of higher education. At present, a large number of students drift to institutions of higher education due to the lack of employment opportunities, even though they have neither the capacity to benefit from such education nor a real aptitude for academic attainments; they join such institutions in order mainly to improve their paper qualifications. Thus the present rush for higher education in fact reflects a push from the employment market. A long-term remedy to the problem would, therefore, lie in accelerating the economic development of the country and the all-round growth of the economy in general with the conscious and deliberate objective of employment generation, so that adequate job opportunities will be created to absorb the increasing number of educated persons.

Recruitment policy

9.32 Among the factors providing the motivation for a large number of persons going in for higher education are the unduly high minimum qualifications prescribed for many jobs where lower qualifications could as well serve the purpose and the preference given to candidates with higher qualifications even in jobs where lower minimum qualifications are prescribed. To reduce the rush to higher educational institutions resulting from this factor, the Committee feels that the existing rules regarding recruitment and the practices followed in the selection process would need to be modified. The Committee feels that the minimum qualifications necessary for the proper performance of the duties of a post should be prescribed, and university degrees should not be used as a filtering device in case of jobs where the qualifications prescribed are lower. In order that persons with

necessary minimum qualifications should be encouraged to apply and be able to compete on fair terms without undue preference being given to those with higher qualifications, the desirability of reducing the age limits prescribed for appointment to various posts, particularly at the lower levels with suitable adjustments for the transitional period, would need to be considered by the Government and other employing agencies. Further, the selection procedures would need to be related more specifically to the job requirements and duties expected to be performed, so that the candidates with minimum qualifications could be considered according to their ability to perform such duties on a par with the persons with higher qualifications without any weightage being given for higher degrees in the process of selection. Besides, arrangements for entry into educational institutions at multiple points should be provided so that student-workers with lower qualifications, who wish to improve their qualifications and professional competence, may have opportunities to do so.

Technical education

9.33 In case of technical education, the general feeling of the employers has been that the products of technical institutions are unfit for handling jobs in industries requiring practical training and that the courses of technical education are very theoretical in character. While the training imparted in technical institutions would not render the trainees competent to handle the specific jobs which may be offered by employers in industry, it appears that our technical courses do suffer from some inadequacy in the matter of orientation towards practical work. We would, therefore, suggest that at every stage of technical education, beginning from craft training to post-graduate technical education, programmes of practical training, linked as far as possible to actual job requirements may be introduced as a part of the curriculum. We have noted in this connection the introduction of sandwich courses in about 60 technical institutions. We feel that this is a step in the right direction and it should provide valuable practical training to the persons receiving technical education. It is necessary, however, to ensure that satisfactory arrangements for such persons acquiring practical experience in the industry are made with the active cooperation of the managements of the industrial units. In the light of the experience gained in the implementation of the scheme by these institutions, it should

be extended further on a wider scale, and similar sandwich courses may be introduced, with the assistance and cooperation of other industrial units, in a larger number of institutions providing both degree and diploma level courses. A close liaison between the educational institutions and the prospective employers of the products of technical institutions is, therefore, necessary. The programme of training, which should be an integral part of the curriculum, should be drawn up according to the requirements of the economic sector and it should be reviewed periodically for effecting changes, which may become necessary as a result of obsolescence of occupations, technological changes etc. Standing boards of technical education, the members of which should include among others some of the higher level technical workers of the industry and the representatives of various concerned authorities should be formed for reviewing the training programmes from time to time. There should be a constant exchange of teachers of technical institutions with the higher level workers in industry, so that the institutions may keep themselves abreast of the changing requirements of industry. Technical institutions should also be encouraged to provide short-term training courses for the existing stock of technicians for upgrading their skills or for teaching allied trades, so as to improve their competence and employability in their professions.

Studies

9.34 To assist in the better implementation of the programmes suggested, we consider that a number of measures and studies should be undertaken. A few such measures/studies are indicated below :—

- (i) The state governments should, with the help of the proposed manpower and employment cells, undertake field occupational surveys in order to identify, on continuing basis, the requirements of technical personnel by manufacturing units. The training programmes and curricula of technical institutions should be reviewed on a continuing basis and changes effected therein on the basis of the reports of these surveys. At the central level, the proposed National Commission on Employment and Manpower Planning and the Department of Employment and Manpower Planning, as is being suggested in Chapter X of this Report, may undertake studies on a

continuing basis of the requirements of different categories of manpower in the country with a view to reduce the huge imbalance that exists at present between the demand and supply of trained manpower. The reports of such studies should be as far as possible form the basis of educational planning.

- (ii) The statistical machinery, charged with the collection of educational statistics, both at the Centre and in the states, should be suitably strengthened, so that the required data for manpower estimates, studies, and planning may be made available with the minimum time-lag. At present, such data are available with a time-lag of four to five years and are thus not helpful for making further studies and estimates. Although current statistics on some selected items are made available within a reasonable period, these are generally not adequate to form the basis for undertaking the required studies. As the collection of detailed statistics of all educational institutions of numerous categories in a large country like India on a census basis is time-consuming, the collection of data on the more important items on a sampling basis in respect of suitably selected institutions should be undertaken both from the point of view of providing more reliable and timely estimates of these items for administrative and policy purposes and for improving the coverage of items and the quality of data needed for studies on various aspects of education.

Training

9.35 The orientation of education and training for developing the attitudes and skills useful for improving the employability of educated persons is an important aspect of the employment strategy for a developing country. Among certain sections of the employers, a view is held that they are not getting the right type of skilled personnel and that the products of our educational institutions have no practical training for the jobs which they seek. While this point of view may be valid to some extent, the real difficulty is that except in the case of a few categories the number of persons seeking jobs is much greater than the job openings available. However, as many of the job-seekers

require improvement of their skills and orientation for the specific types of jobs sought by them, it is desirable to draw up suitable training programmes of short duration for persons with educational qualification of different levels with a view to upgrading their skills and improving their capability for getting employment or for being self-employed. The efficiency and productivity of the small undertakings can be raised by providing their proprietors as well as prospective entrepreneurs with managerial training including costing, marketing, salesmanship, planning and organisation of work, instruction techniques, etc., which would in turn enrich and widen the technical skills and expertise of the management. The role of these small undertakings in a developing country like India will become more significant with the increase in the demand for numerous and varied components and ancillary items as a result of greater industrialisation which is one of the objectives of planning. Some training programmes would also be necessary for a large number of persons who have received elementary education or who are drop-outs from schools, particularly in rural areas, so as to impart to them elementary skills for improving their employability and make them more useful in their parental occupations or other trades. Such training programmes would have to be of a pre-vocational type.

Pre-vocational training.

9.36 As already pointed out earlier in the chapter, a large number of students leave schools even before completing the elementary stage of education mainly due to economic reasons, and those who complete elementary education are also not equipped with the basic knowledge and skills needed for useful employment in a developing economy. Pre-vocational training should, therefore, be provided in good time for these categories of persons including those who have already pointed the labour force and/or the unemployed or under-employed. The training courses would have to be formulated separately for different areas in accordance with their occupational patterns, and they should aim at providing the trainees with elementary knowledge and skills required for improving the techniques of their parental occupations or such other activities as they may intend to take up. Such programmes would have to be of varied nature and widely spread so as to suit the requirements of different types of trainees and the skills needed for different occupations in each area, having regard to the employment possibilities of such occupations

and the socio-economic and cultural background of the trainees.

This training programme, besides providing some practical training in agriculture, manufacturing, trades and services should provide practical instructions which would help in upgrading the knowledge and skills of the trainees for the occupations that they intend to adopt after the training. Besides, these training courses should also be so designed as to increase the trainees understanding of their social responsibilities and help them become useful members of the modern society. Under this programme, there is also a scope for training persons like landless labourers, who do not have a family craft of their own to join, so that they may be enabled to take up activities like traditional crafts which are labour-intensive. Promotion of these traditional crafts is of special importance in our country due to our limited entrepreneurial and capital resources. After completing such training, the trainees should be assisted to start their own enterprises in traditional and labour-intensive crafts such as smithy, carpentry, handloom weaving, poultry, dairing, hosiery, etc., in which some of them may also provide employment to others. This would also help in the expansion of educational and training facilities in backward areas of the country. It would be relevant to mention here that while such programmes for the drop-outs and school-leavers are necessary in the present conditions, the ultimate objective should be to incorporate such training in the system of elementary education and thereby minimise the number of drop-outs as well as improve the employability of those who leave school after completing the elementary stage of education. We have dealt with this aspect in greater details earlier in this chapter.

Medium and high level vocational training

9.37 A large number of educated and qualified persons, including those with technical education, are unemployed, partly, because sufficient job opportunities do not exist for them in the organised sector and partly because they have not received the requisite practical training for the jobs where they can be absorbed. For this purpose, an important measure which could be adopted would be to provide suitable practical training in specific jobs in the organised sector. Further, it is also necessary to arrange for the training of a larger number of persons in a variety of skills, so that they could either get absorbed as workers or set up as self-employed persons whether in the organised or the unorganised sector. All such training programmes would

need to be carefully planned in advance, so that they may be dovetailed into the educational and training programmes and be linked to the economic development plans of the area in which they are implemented.

Some schemes of short-term training are being run by the Directorate General of Employment and Training for technical personnel. These may, however, be reviewed and rationalised in view of the changing needs of the occupational pattern. It is suggested that short-term training programmes for technical personnel including degree, diploma and certificate holders should be taken up to impart employable skills to the technical personnel, educated unemployed and also upgraded the skills of persons seeking higher jobs. The duration of such courses may vary from three

- (a) Agriculture farm mechanic, repairman, fitter, sheet metal worker, etc.
- (b) Irrigation pump operator, pump mechanic, pipe fitter, sheet metal worker, etc.
- (c) Industry & Craft chageman, foreman, electrician, wireman.
- (d) Transport & Shipping truck driver, motor driver, automobile engineer, car mechanic, marine engineer, etc.
- (e) Construction building, road/cement mason, mistry, carpenter, blacksmith, etc.
- (f) Health Occupations. . . . dental assistant, nurse, medical office assistant, etc.
- (g) Distributive-occupations and tertiary services food service management, departmental stores, management, salesmanship, hotel catering, typing and stenography, draughtsmanship, telephone operation, accountancy, business organisation and management, etc.

9.38 Any expansion of the vocational training facilities without regard to the pattern of demand of various skills may further worsen the problem of unemployment among technically qualified people. To avoid this, as already emphasised, training facilities would need to be planned in accordance with the requirements for manpower in specific categories of skills. Since the geographical mobility of such workers is limited, the training programmes should generally be planned on the basis of local field surveys undertaken in respect of requirements for manpower in existing and emerging occupations. A suitable machinery must be established at the district level for conducting such surveys and for linking education and training programmes with the findings of these surveys. For overall co-ordination at the state level, some board or council may be set up which should include *inter alia* the representatives from the concerned departments of the Government, industry, technical institutions, workers' unions and elected bodies.

to six months and in some cases may extend upto one year. The training programmes should be—

- (i) tailored to specific industrial job requirements,
- (ii) up-to-date with advancing technology,
- (iii) flexible in response to changing manpower needs, and
- (iv) more oriented towards local industries.

Each State should select courses according to its local needs. The training could be arranged by the appropriate authorities concerned in existing Industrial Training Institutes (ITIs), junior technical schools, polytechnics, Small Industry Service Institutes (SISI) and local Industries. Training programmes in sectors like those mentioned below could be started to help the rural youth in getting employment :—

Stipendiary and National Apprenticeship Schemes

9.39 Both the Ministry of Education's Stipendiary Scheme of Training and the Ministry of Labour's Scheme of National Apprenticeship are extensive and important instruments of skill generation in the economy and for increasing the employability of the trainees. So far, there has been no independent review of these schemes. But the general observation is that the industries, where such trainees are sent, look on these schemes as an imposition and accordingly there is a certain degree of reluctant participation in the schemes, although they are the final consumers of the products of these schemes. Some concerted efforts will have to be made to promote a more receptive climate for these schemes among the employers, and if necessary, some legal obligations may be imposed for their effective implementation. It is suggested that large-sized industries, which have their own training programmes, should choose

trainees from those selected under the scheme and should share part of the expenditure incurred by way of stipends. This arrangement will make the industries more committed to the programmes of training envisaged under the schemes. Some other difficulties in the working of these schemes and a few corrective measures that could be taken for their removal are mentioned below :—

- (i) Due to the non-availability of living accommodation, students are obliged to forgo opportunities of training in good establishments. Every industry should, therefore, be required to put up and maintain a trainees' hostel, the capacity of which may be determined by the size of the industry.
- (ii) In view of the operation of various wage incentive schemes in industry, the workers are reluctant to let any part of their effective working time being consumed on account of the trainees. Therefore, measures to compensate the workers for their lost time will have to be adopted, involving some financial burden on the industry. The Government should make efforts to persuade industry to devise suitable measures for this purpose.
- (iii) The attitude of some workers trainees, who are being trained for supervisory and management positions tends to be one of suspicion. They have a lurking fear that technically qualified youngmen, when trained, may occupy supervisory positions, which they think they themselves could have taken in due time. They are also afraid of their secrets and skills being known to those who might one day become their officers. This is a matter of inspiring confidence among the workers,

which may become possible only if the organisation is deeply committed to the training programmes.

- (iv) Each large industry should have a training centre of its own. This would facilitate the industry taking fresh engineers for training and it may lead to the absorption of a larger number of such trainees in the industry itself. Such training centres would also be in a position to look after the training needs of the students from colleges and polytechnics effectively.

Participation of Industry

9.40 To make the implementation of the above training programmes effective, industry should be encouraged and persuaded to participate activity in the planning of such programmes and their implementation. It should, as far as possible, be made obligatory on their part to give a measure of preference to such trainees for job opportunities in their own establishments.

9.41 While it is no doubt necessary to re-orient the existing educational and training facilities in the country in order to remove their present inadequacies and to impart to our growing youth new skills and techniques by taking the various measures outlined above, these would only provide some palliative for the acuteness of the problem of unemployment. Such measures by themselves would not provide an effective long-term solution for the problem unless at the same time there is rapid transformation of agriculture and industry in the country and of the socio-economic environment surrounding the youth and the economy of the country acquires a sufficiently high absorptive capacity to provide work for the increasing numbers of the youth with education and training who would continue to seek avenues of employment in the coming years.

ANNEXURE (1)

STATEMENT—1 Educational facilities for the children of the age-group 6-11 (1970-71—1978-79)

(Figures in thousands)

State/Union Territory	Enrolment in classes I-V 1970-71 (Actual) † **	Percentage of enrolment in classes I-V to total population in age group 6-11 in 1970-71 (Actual) ‡	Enrolment in classes I-V in 1972-73 (Likely) † **	Percentage of enrolment in classes I-V to total population in age-group 6-11 in 1972-73 (Likely) ‡	Target of estimated enrolment necessary in classes I-V in 1978-79 to cover 100% population of the age-group 6-11 ‡
(1)	(2)	(3)	(4)	(5)	(6)
A. States :					
1. Nagaland	70	118.0	71	115.2	67
2. Kerala	3,319	116.5	3,497	116.2	3,328
3. Tamil Nadu	5,145	107.9	5,445	111.8	5,124
4. Manipur	180	106.7	188	102.6	226
5. Meghalaya*	141	97.9	147	98.0	167
6. Maharashtra	6,099	89.1	6,106	85.1	7,935
7. Uttar Pradesh	10,828	87.5	11,541	90.0	14,057
8. Gujarat	3,218	84.1	3,458	85.3	4,562
9. Mysore	3,357	82.8	3,535	84.2	4,846
10. Himachal Pradesh	394	78.8	439	82.1	605
11. Jammu & Kashmir	405	76.6	462	84.1	578
12. West Bengal	4,781	74.5	5,161	76.5	7,626
13. Tripura	168	73.4	187	77.3	278
14. Assam*	1,536	70.3	1,768	76.2	2,699
15. Andhra Pradesh	3,938	69.8	4,421	75.5	6,368
16. Punjab	1,431	66.0	1,553§	66.6	2,684
17. Orissa	1,849	64.0	2,330	77.1	3,328
18. Bihar	5,009	62.2	5,619	67.0	9,342
19. Haryana	890	60.2	1,062	68.8	1,829
20. Rajasthan	2,205	58.1	2,395	60.0	4,476
21. Madhya Pradesh	3,206	55.7	3,856	64.9	6,534
B. Union Territories :					
1. Goa, Daman & Diu	122	138.8	129	145.2	91
2. L. M. & A. Islands	5	138.5	5	136.6	4
3. Chandigarh	27	114.2	31	122.5	29
4. Pondicherry	61	113.7	64	116.6	59
5. Dadra & Nagar Haveli	11	111.0	12	108.2	12
6. A. & N. Islands	12	105.9	15	119.8	15
7. Delhi	468	81.1	525	81.3	819
8. Arunachal Pradesh	18	33.7	27	44.8	61
ALL INDIA	58,893	78.0	64,031	81.5	87,749

Source : †Planning Commission.

‡Report of the population projections worked out under the guidance of the Expert Committee set up by the Planning Commission under the Chairmanship of the Registrar General India, 1968.

*Population of the age-group 6-11 estimated on the basis of 1971 Census in respect of these states.

**Figures in columns 2 and 4 include enrolment of the children below the age of 6 and above the age of 11.

§ Estimated.

ANNEXURE (2)

STATEMENT—2 Educational facilities for the children of the age-group 11-14 (1970-71—1978-79)

(Figures in thousands)

State/Union Territory	Enrolment in classes VI-VIII in 1970-71 (Actual) † **	Percentage of enrolment in classes VI-VIII to total population in the age-group 11-14 in 1970-71 (Actual) £	Enrolment in classes VI-VIII in 1972-73 (Likely) † **	Percentage of enrolment in classes VI-VIII to total population in age-group 11-14 in 1972-73 (Likely) £	Total estimated enrolment necessary in classes VI-VIII in 1978-79 to cover 75% of the population of the age-group 11-14£
(1)	(2)	(3)	(4)	(5)	(6)
A. STATES :					
1. Kerala	1,061	70.4	1,103	68.7	1,403
2. Nagaland	19	59.7	21	61.9	29
3. Himachal Pradesh	129	52.2	151	55.3	250
4. Tamil Nadu	1,299	47.8	1,302	47.0	2,226
5. Haryana	337	46.0	374	46.0	756
6. Punjab	470	43.7	520§	43.6	1,109
7. Jammu & Kashmir	116	43.3	127	44.3	245
8. Maharashtra	1,537	43.2	1,604	41.9	3,354
9. Manipur	35	41.3	39	41.8	90
10. Meghalaya*	31	40.8	36	45.5	68
11. Gujarat	794	40.5	890	41.9	1,901
12. Tripura	43	39.0	55	46.4	107
13. West Bengal	1,135	34.0	1,269	35.6	3,153
14. Mysore	686	31.3	760	33.3	1,939
15. Assam*	334	29.1	390	31.9	1,088
16. Uttar Pradesh	1,866	27.9	2,019	28.9	5,919
17. Rajasthan	518	26.2	606	28.6	1,868
18. Bihar	965	21.9	1,137	24.8	3,889
19. Madhya Pradesh	689	21.8	819	25.0	2,738
20. Andhra Pradesh	534	17.7	649	20.5	2,702
21. Orissa	252	16.5	595	36.7	1,496
B. UNION TERRITORIES :					
1. Goa, Daman & Diu	34	73.2	37	75.5	39
2. Delhi	212	72.9	242	72.0	344
3. A. & N. Islands	4	68.3	5	80.3	6
4. L. M. & A. Islands	1	60.0	1	62.5	2
5. Pondicherry	17	57.2	19	63.8	24
6. Chandigarh	5	41.7	6	49.6	12
7. Dadra & Nagar Haveli	1	18.4	1	15.1	5
8. Arunachal Pradesh	3	10.2	3	11.3	26
ALL INDIA	13,127	32.4	14,780	34.7	36,788

Source : †Planning Commission.

£Report of the population projections worked out under the guidance of the Expert Committee set up by the Planning Commission under the Chairmanship of the Registrar General, India 1968.

*Population of the age-group 11-14 estimated on the basis of 1971 Census in respect of these states.

**Figures in columns 2 and 4 include enrolment of the children below the age of 11 and above the age of 14.

§Estimated

ANNEXURE (3)

Estimated cost involved in the expansion of primary education

Programme	Average unit cost in rupees	Total cost during remaining year (1973-74) of the Plan (Rs. in crores)	Total cost during the Fifth Plan (Rs. in crores)					
			1974-75	1975-76	1976-77	1977-78	1978-79	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Additional annual enrolment of 40 lakh children of the age-group 6-11 will create employment opportunities for 1.00 lakh teachers; teacher-pupil ratio being 1:40	Rs. 60 per student per annum	24.00	24.00	48.00	72.00	96.00	120.00	360.00
2. Additional enrolment of 36 lakh (15 lakhs for regular classes and 21 lakhs for part-time education) children of the age group 11-14 will create employment opportunities for 0.50 lakh regular teachers and a large number of employment opportunities for educated unemployed as part-time teachers; teacher-pupil ratio being 1:30	Rs. 80 per student per annum for regular classes; and Rs. 40 per student per annum for part-time classes.	12.00	12.00	24.00	36.00	48.00	60.00	180.00
		8.40	8.40	16.80	25.20	33.60	42.00	126.00
3. Provision for 1200 inspectors of schools at the rate of one inspector for every 125 additional teachers	Rs. 400 per month per Inspector	0.57	0.57	1.14	1.71	2.28	2.85	8.55
4. Provision for improvement programme	Ad hoc	25.00	25.00	50.00	75.00	100.00	125.00	375.00
5. Provision for school buildings	Ad hoc	25.00	25.00	50.00	75.00	100.00	125.00	375.00
TOTAL		94.97	94.97	189.94	284.91	379.88	474.85	1424.55

Explanatory Notes ;

(i) The average annual cost, based on an average salary of Rs. 200 per month per teacher plus 10 per cent old age benefits etc. and 10 per cent non-teaching cost with 1:40 teacher pupil ratio in lower primary stage, comes to Rs. 72 per student at the lower primary stage.

In actual practice, however, this cost differs from State to State and in fact in the educationally backward States like U. P. and Bihar where there is great scope for the expansion of primary education the average annual cost is substantially low. Therefore an average annual cost of Rs. 60 per additional student has been taken as the basis for working out the total cost involved in providing education to 40 lakh additional children of the age-group 6-11 per annum.

(ii) The average annual cost per student at the upper primary stage, based on the formula of 50% more cost than at the lower primary stage comes to about Rs. 105 but on the basis of a low rate of cost in educationally backward States, in which a larger number of additional children of the age-group 1-14 are to receive education, the average annual cost is assumed to be Rs. 80. For part-time education, where the cost is estimated to be 50% less than in regular classes, the average annual cost per additional child is assumed to be Rs. 40.

(iii) The cost for the remaining one year the Fourth Plan has been calculated for additional children for one year only and since the expenditure of the Fourth Plan will be converted into maintenance expenditure during the Fifth Plan, it has not been carried over to the Fifth Plan while calculating the cost for the years comprising Fifth Plan period. In case of Fifth Plan, the total costs have been worked out by including the cost of the students brought under the programme in the earlier year (s).

CHAPTER X

MACHINERY FOR CONTINUOUS APPRAISAL

10.1 Under the fifth term of reference, the Committee is required to suggest a suitable machinery at the Centre and at the State level for continuous appraisal of the changing employment and manpower situation and assessment of the long term demand and supply. It is relevant to point out that this question is inextricably linked up with the development programmes in all sectors of the economy and the implementation of those programmes at all levels from the centre to the remotest peripheral villages. The appraisal of the development process with regard to employment and manpower situation can be conceived in terms of four broad facets, namely :—

- (a) the periodical assessment and continuous review of the actual supply and demand position of the different types of man-power and the assessment of the labour force and its categorisation in a meaningful way, so as to work out a balance between the available labour force and various categories of manpower and the employment potential on all-India basis, on state basis and on regional or group basis ;
- (b) the pre-implementation appraisal of the development programmes in different sectors in all their aspects including their relation to the employment and manpower situation as well as to programmes in other sectors ;
- (c) the continuous monitoring and concurrent evaluation of individual programmes in the course of their implementation, with a view to assessing their impact on the employment and manpower situation and suggesting modifications in the programmes by way of remedying imbalances, if any, and
- (d) an overall study of socio-economic developments in suitable areas like districts or still lower geographical units, to examine employment and manpower balance in regard to each category of manpower.

In addition to the periodical assessment of these four broad facets of employment and manpower situation, there would be need for a continuous review not only of the situation

under the plan programmes but also of the various other developments affecting the socio-economic situation in the country.

10.2 Broadly, manpower planning involves

- (a) the estimation of the requirements for new employment opportunities for various categories of manpower, the evaluation of the manpower implications of Plan programmes and any subsequent modifications in the course of execution. These activities involve the examination of the quantitative and qualitative aspects of the present and future manpower supply and demand. For this purpose it is necessary to assess critically all the available data used for planning purposes and to make suggestions for refinements therein as also for the collection of additional data, where necessary ;
- (b) participation in the finalisation of the overall Plan, including estimation of manpower requirements for the current Plan period and for perspective planning, formulation of manpower criteria for consideration in the choice of project programming of manpower inputs for global and sectoral plans, fixation of educational and training targets, etc. ;
- (c) the estimation of the employment expected to be created outside the Plan and the suggestion of measures for its achievement ; and
- (d) the evaluation of plan programmes as they are being executed in order to determine their impact on manpower and employment, to identify problems and to devise remedial measures that may need to be taken, including the revision of plans.

10.3 Continuous appraisal of the changing employment and manpower situation and assessment of long term demand and supply as referred to in the fifth term of reference should include :—

- (i) the assessment of the requirements of technical and other personnel taking into consideration the future needs and changes in technology ;

- (ii) the formulation of policies necessary for reorganising the technical and professional training in such a way as to meet the requirements with a proper balance between the supply and demand in different regions and from time to time ;
- (iii) a continuous study of the different components of the labour force to help formulate schemes for its absorption into gainful activities;
- (iv) the study of the interaction of social, economic, technical and financial factors which impinge upon the manpower and employment situation ; and
- (v) the establishment of an information system in respect of each of the above components for the purpose of the collection, compilation and interpretation of data in an integrated manner so as to ensure a balanced approach to policy formulation.

Existing Arrangements

10.4 The work relating to manpower planning and employment is spread over a number of government and semi-government agencies at the national and state levels. In particular, the following organisations at the national level are entrusted with this function, and some of them have counterpart organisations at the state level or field organisation at the state levels which are involved in this process.

The Directorate General of Employment and Training (DGE&T), the Employment and Labour Division of the Planning Commission and the Employment and Manpower Cell in the Cabinet Secretariat are mainly dealing with the employment and unemployment situation in the country and the employment generated by different programmes. In addition, the DGE&T generally oversees the operation of the employment services in the country. The DGE&T also concerns itself with training institutions like the Industrial Training Institutes (ITIs) and with the scheme for apprenticeship in industry. The Directorate of Manpower in the Ministry of Home Affairs*, the Institute of Applied Manpower Research and the Council of Scientific and Industrial Research deal with the technical aspects of the estimation of supply of and demand for technical manpower in different

fields. The Ministries of Education, Agriculture and Health among themselves deal with general, specialised and professional types of education which ultimately affect the supply of educated and technical personnel. The responsibility for the production of data on a number of socio-economic matters including employment, availability of manpower of different types and manpower utilisation is shared mainly by four organisations under the Central Government, namely, the Registrar General & Census Commissioner of India, the Central Statistical Organisation, the National Sample Survey Organisation and the Labour Bureau. Some of these organisations have their counterpart or field organisations at the state and local levels. The work relating to different aspects of the subject at the state level is dealt with by such counterpart organisations wherever they exist. The Panel appointed by the Committee@ reviewed the available information on the organisational structure of these various agencies, their functions, the scope and methods of their work, the type of data collected and the studies and analysis carried out by them. We have given careful consideration to the observations and recommendations of the Panel.

10.5 The machinery which deals with manpower planning and employment situation has also been reviewed earlier by a number of agencies. Of particular relevance in this connection are the views expressed by the Administrative Reforms Commission, the National Commission on Labour and the Ministry of Labour & Rehabilitation. We have gone into the details of their observations and recommendations. We have also taken into account the recommendations of the International Labour Organisation (ILO) in this regard and the experience of a few selected countries.

10.6 Besides, the Steering Group on Employment and Manpower set up by the Planning Commission in connection with the formulation of the Fifth Plan is also currently considering the present position of manpower organisations at the Centre and in the states. This group had appointed a sub-group to examine the existing strength of manpower organisations in the states and to suggest a suitable staffing pattern for them and financial arrangements for strengthening them. We have had occasion to glance through the

*The Directorate of Manpower has since been transferred to the Planning Commission.

@Panel on the Assessment of the Extent of Unemployment and Under-employment.

observations and recommendations made by this group. In November, 1972 the Directorate of Manpower sponsored a conference of the State manpower officers to discuss, *inter alia*, the organisational arrangements in the states for manpower work and measures for increasing their effectiveness. The discussions at this conference have thrown valuable light on the experience of the states including their problems both organisational and methodological. We have benefited by the discussions and recommendations made at this conference. We have reviewed the available information on the organisational structure of these various agencies, their functions, the scope and methods of their work, the types of data collected, the studies and analyses carried out by them, and the recommendations made from time to time for their improvement.

10.7 The functions in respect of manpower planning and employment are shared mainly by the five organisations listed earlier. The Directorate General of Employment & Training is the principal organisation concerned with the employment situation in the country. It deals with the development and administration of employment service including placement facilities for all categories of work seekers, the provision of specialised services to the physically handicapped and ex-servicemen, etc. It is responsible for the collection of data on employment and manpower under the employment market information programme. It provides vocational guidance and employment counselling and undertakes occupational analysis and research. It provides training courses for equipping a part of the labour force with certain skills which might be useful to them in getting employment. The Directorate General is doing this work through its counterpart departments at the state level, the employment exchanges of different types and the industrial training institutes. At times, the Directorate General undertakes through these field organisations, studies on various aspects of the employment situation such as the characteristics of unemployed persons, of persons seeking particular types of employment, etc. It functions as the focal point for liaison between international agencies, such as, the International Labour Organisation and various organisations in the country dealing with different aspects of employment. The functions of the Directorate General are at present mainly concerned with the promotion of employment services and the provision of training for the improvement of skills of workers and it does not by and large deal with the overall questions of employment and manpower planning.

10.8 The Directorate of Manpower is concerned with the question of assessing the position regarding a balance between the demand and supply of technical manpower. It undertakes suitable studies directly as well as in collaboration with manpower officers of state governments. In this work, the Directorate is assisted by the Institute of Applied Manpower Research which, *inter alia*, undertakes research and promotes various studies on different aspects of manpower planning and utilisation. The work of the Directorate as well as the Institute is complementary to the functions of the DGE&T.

10.9 The Employment and Manpower Cell in the Cabinet Secretariat is a recent creation with specific functions, i.e., watching the progress of certain special programmes being implemented for creating employment opportunities. It also helps other agencies in the formulation and review of employment-oriented schemes and it co-ordinates studies on the methodological problems.

10.10 The Planning Commission is dealing with the various activities concerning planning, including manpower and employment. The Labour and Employment Division of the Planning Commission deals broadly with the overall aspects of the manpower and employment situation in the country but it does not concern itself with various aspects and specific issues relating to different sectors which are dealt with by other divisions of the Commission and various ministries of the Government. Due to the limited nature of its functions, the Labour and Employment Division is not in a position to co-ordinate and analyse all the available information flowing from various sources regarding the manpower and employment situation, so as to help adequately in the utilisation of such information for policy formulation.

10.11 The functions of the Ministry of Education and its counterpart organisations at the state level in respect of manpower planning and employment are very important. The Ministry of Education is responsible for the expansion of general education and the provision of technical and professional educational facilities in fields other than health and agriculture which are dealt with by the respective ministries. It is not primarily concerned with the assessment of employment opportunities for the educated personnel produced by various institutions. However, the Ministry collects through its normal channels and field organisations necessary data on those aspects of education which are helpful in planning its own programmes; such data

would also be helpful in studying employment and manpower aspects of education. It is, therefore, necessary to provide for a two way flow of information between the Ministry of Education and the agencies responsible for manpower planning and employment for the purpose of making a better assessment of the manpower situation and suitable adjustments in the educational programmes, where necessary.

Suggested Organisational Framework

10.12 The problems associated with the collection of data on unemployment have been discussed in detail by the Dantwala Committee. We have already dealt with the various observations and suggestions made by that Committee. As indicated earlier, different organisations are collecting in respect of their fields, data which also throw light on particular aspects of the unemployment situation. There is, however, no central agency at present which is responsible for bringing together and collating all such data and making a comprehensive study of the various aspects of the problems of manpower and employment. We feel that there is a need for establishing such a central agency so as to ensure co-ordination, undertake the timely compilation and collation of all relevant information on the manpower and employment situation and make comprehensive analysis and studies of such information for the purpose of planning.

10.13 The problem of manpower planning and employment has three main facets, namely, creating opportunities for the large section of the labour force which is currently unemployed or under-employed, assessing the requirements of technical and other qualified personnel for various development programmes and devising suitable measures for ensuring an adequate supply of the requisite personnel in accordance with the plan and their proper placement. Each of these facets involves consideration of different aspects related to its planning, implementation and evaluation. This would reinforce the need for establishing a suitable central organisational structure as suggested in the preceding paragraph—which could, besides having the functions indicated there, also be entrusted with the formulation of suitable employment and educational programmes and their adequate coordination and evaluation.

10.14 Some of the existing agencies deal exclusively with the functions relating to manpower planning and employment generation, which are separable from the main

sphere of work and functions of their parent organisations. For example, the functions of the Directorate of Manpower and those of the Employment and Manpower Cell in the Cabinet Secretariat are exclusively related to manpower planning and employment and are not directly connected with the other functions of their parent organisations. The functions of such organisations can easily be transferred to a suitable apex organisation which might be entrusted with overall responsibility in respect of manpower planning and employment.

10.15 In the case of other existing agencies, the problem is of a somewhat different character, for example, the Ministry of Education is responsible for the collection of data on various aspects of education. These data are primarily intended to serve the purposes of the Ministry. However, some of these data are also useful for the purpose of employment and manpower planning. While the responsibility for collection of such data may continue to vest in the Ministry of Education, it is important that suitable arrangements should be made for ensuring the regular and timely flow of such data to the proposed apex organisation responsible for employment and manpower planning, with a view to facilitating a comprehensive study of the available data for effective co-ordination of the programmes of the Ministry of Education and other agencies concerned with specialised education and for the formulation of suitable policies for ensuring supply of the requisite personnel.

10.16 The question of keeping a continuous watch on the employment, unemployment and under-employment situation and of promoting a balance between the supply of and the demand for labour in different sectors necessitates a continuous monitoring of the employment generating capacity of the sectoral programmes. It should be recognised that the monitoring and assessment of such programmes in relation to the employment aspect should primarily be the responsibility of the executive agencies implementing such programmes. However, the apex organisation suggested by us should be supplied with the relevant data and the results of assessment by the implementing agencies so as to facilitate the assessment of the overall employment situation as well as to effect such co-ordination and such adjustment of policies and programmes as may be necessary.

10.17 No system for collecting statistical data can be so devised as to answer all possible questions or to serve all the various purposes and needs that may arise from time to time.

In a developing situation, the requirements of data, the underlying concepts and the periodicity of collecting and compiling such data would vary from time to time according to circumstances. So far as data for employment and manpower planning are concerned, it is necessary that the question of suitably strengthening the data collecting agencies and making adjustments in their procedures should be kept under constant review by the department entrusted with the subject of statistics, in consultation with all the agencies collecting such data and the apex organisation which would be entrusted with employment and manpower planning.

There are a number of field organisations concerned with the collection of statistics on various subjects. The greater the number of such organisations the more are the procedural formalities and delays in processing and collecting such data. For the purpose of employment and manpower planning, particularly for assessing the demand for different categories of personnel and their placements and for devising suitable modifications in the training programmes, a sustained flow of relevant and timely information has to be ensured from the various agencies to the apex organisation entrusted with the responsibility for manpower planning. Very often the different objectives of various separate agencies involve considerable overlap and duplication of efforts. This also needs to be corrected by devising suitable arrangements for an overall review by an apex organisation so as to ensure uniformity of concepts and adequate coverage and at the same time, to avoid any duplication or gaps in the total information.

10.18 All this will indicate that our efforts should concentrate on ensuring the following objectives :—

- (a) integration of the organisations which deal directly and exclusively with the planning of manpower and with employment, to form one organisation or executive department of the Government of India;
- (b) better technical co-ordination among the agencies which generate and collect data on manpower and employment;
- (c) co-ordination between the various ministries and organisations dealing with education including professional education and training; and
- (d) a mechanism to ensure effective implementation of measures to secure the objectives described in (a), (b) and (c)

above, so that policies and programmes consistent with the overall requirements of employment and manpower planning are formulated, effectively implemented and continuously monitored.

There is, therefore, need for setting up a suitable organisation (a) to ensure overall co-ordination among the agencies generating data; (b) to analyse the available data and to suggest changes from time to time in the system of collection of data; and (c) to formulate practical policies and programmes pertaining to the planning of manpower and employment from time to time in the light of developments in the economy.

10.19 Taking into account the various recommendations made in the past, we feel that at the Centre as well as in the States, the agencies which deal directly and exclusively with the planning of manpower and employment should be merged to form a separate department of the Central Government and of the State Governments. In particular, at the national level, the Directorate General of Employment & Training, the Directorate of Manpower and the Employment and Manpower Cell in the Cabinet Secretariat should be merged to form a Department of Employment and Manpower Planning. This Department should have a number of divisions or sections to deal with the following subjects :—

- (i) Manpower budgeting and forecasting
- (ii) Development of employment services.
- (iii) Employment market information.
- (iv) Surveys and studies.
- (v) Statistics.
- (vi) Occupation and job analysis.
- (vii) Monitoring of employment generation.
- (viii) Formulation and promotion of programmes of employment generation.
- (ix) Monitoring specific developments which are likely to lead to large-scale unemployment.

The above subjects to be handled by the proposed Department of Employment and Manpower Planning may appear to overlap with several subjects allotted to other existing departments of the Government. We would like to make it clear that our intention is not to place all the activities relating to these subjects under the direct charge of the proposed new department. While this would be desirable in respect of some of the functions

e.g., employment market information, occupation and job analysis, development of employment services, etc., in the case of other items, such as surveys and studies, statistics, monitoring of employment generation in particular sectors, manpower budgeting and forecasting in such sectors, etc. this new department would perform co-ordinating and supporting functions. It should also be responsible for co-ordinating and promoting research sponsoring surveys and type studies, advising on the methodology of manpower planning and employment, laying down standards and norms and making suggestions regarding policy measures to ensure an overall balance between manpower supply and demand. However, the study of the supply and demand for manpower in each particular sector or field, as well as other functions related thereto, should primarily be the responsibility of the various sectoral authorities and organisations. The proposed new department should receive a continuous flow of information from all such agencies to enable it to analyse the employment situation from time to time in a comprehensive manner. It should work in close co-operation with the sectoral organisation for discharging its other co-ordinating and advisory functions.

10.20 The Department of Employment and Manpower Planning would thus be responsible for two broad types of functions: executive and coordinating-cum-advisory. So far as the co-ordinating functions are concerned, the Department would be required to deal with manpower planning agencies in different sectors, the agencies concerned with Plan programmes and schemes for employment generation, the agencies dealing with professional and other educational training, the data collecting agencies, etc. It should also generally oversee the impact on employment generation of the policies and programmes adopted by organisations like public sector undertakings, nationalised banks, financial institutions, etc. Further, it should concern itself with the employment aspects of the Plan programmes and other measures undertaken by the state governments and the local authorities etc., subordinate to them. The Department will provide a suitable mechanism through the creation of inter-departmental committees, etc. for co-ordinating the work of all the agencies concerned. The arrangements for such co-ordination would need to be devised at three levels, namely, the administrative level, the technical level to deal with methodological problems and technical co-ordination, and at a policy level to make suggestions to the

various government departments on the basis of the suggestions or recommendations emanating from the former two levels.

10.21 The implementation of programmes self-employment sponsored by the Government and other agencies as well as the situation regarding self-employment in the country from time to time should be continuously monitored by the appropriate agencies of the Government, and the Department of Employment and Manpower Planning at the Centre should exercise a co-ordinating role in the matter. It may be emphasised that the appraisal of the employment, unemployment and under-employment situation in the country would remain incomplete unless this important sector of self-employment is monitored meaningfully and effectively.

10.22 As indicated in para 10.11 above, the professional education in some sectors, such as, medicine and agriculture, is the responsibility of the respective subject matter Ministries other than the Ministry of Education. In order to consider the needs of education as a whole, particularly in its relationship with employment and manpower planning, we consider that the Ministry of Education should be entrusted with the overall responsibility of coordinating the facilities for education provided by the various institutions with which it is primarily concerned as well as by those under other ministries or agencies of the Government dealing with different aspects of professional education. The Ministry of Education should thus perform a nodal and co-ordinating function for the whole sphere of education in relation to the requirements of the employment situation. The procedural details in this regard may be worked out by the Ministry of Education in consultation with other agencies concerned.

10.23 In the previous paragraphs, we have recommended that a new Department of Employment and Manpower Planning should undertake certain co-ordinating functions for building up a comprehensive picture from time to time regarding the employment situation and for suggesting policy measures to promote employment and secure a balance between manpower supply and demand. The technical co-ordination between various agencies collecting information and data is at present the responsibility of the Department of Statistics and the Central Statistical Organisation, and they should, no doubt, continue to have this responsibility in relation to data relating to employment and manpower. We

have also suggested that the Ministry of Education should be entrusted with nodal and co-ordinating functions in the entire field of education, particularly in relation to the employment situation. In view, however, of the vast size of the country, the federal structure of the government, the diversity of economic conditions in various regions and the changing employment and manpower situation in different sectors of the economy, it is necessary to have an effective machinery at the national level which could undertake a comprehensive and detailed appraisal of the employment situation on a continuous basis, effect better co-ordination among various agencies and promote more purposeful planning and execution of the programmes having an impact on employment, of the different ministries and agencies of the Central Government as well as of the state governments and other organisations in the country.

10.24 In theory, the Planning Commission is responsible for overall co-ordination of all planning activity in the country. It has technical divisions dealing with individual sectors of development, and there is also a well-organised programme evaluation organisation. The divisions of the Planning Commission which are mainly concerned with the subject under discussion include Labour and Employment Division, Perspective Planning Division, Education Division and Co-ordination Division. The Planning Commission functions, however, mainly at the policy making and macro levels. The formulation of Plan programmes and the working out of their details are mainly the functions of either the central ministries, or the state governments assisted and advised by the state planning boards. The overall employment situation has, no doubt, to be considered and dealt with at the level of the Planning Commission. The subject has, however, in the past tended to be treated in a fragmentary manner and as an ancillary aspect of the entire process of planned economic development. Further, the problem of unemployment has assumed large dimensions and severe intensity in recent years. We feel that appraisal and co-ordination of the type indicated earlier and the amount of detailed work required therefor would not be feasible at the level of the Planning Commission.

10.25 In a vast country like ours with diverse and changing economic conditions, we feel that it is necessary that there should be a separate organisation at the national level, with sufficient autonomy and authority, which should devote itself exclusively to a compre-

hensive assessment and review of the employment situation on a continuous basis and provide guidance and advice to the various ministries of Government and other agencies in their policies and functions in relation to the employment situation. We, therefore, feel that besides the Department of Employment and Manpower Planning at the Centre as suggested earlier, a separate high power organisation with adequate authority should be established for this purpose.

Such an organisation should be in a position to provide technical guidance and advice for the activities of the new Department of Employment and Manpower Planning and to suggest suitable objectives and guidelines for other ministries and agencies of Government for the purpose of employment generation and manpower planning as also to indicate such adjustments in their policies and functions as it may consider necessary from time to time. It should further have the freedom to undertake studies and sponsor surveys so as to apprise itself of all relevant factors for assessing the employment situation in a comprehensive manner. This organisation should, therefore, be an autonomous and independent high-power body which should not be unduly fettered in its work with departmental procedures and official restraints.

10.26 A number of commissions have been set up in the recent past for discharging similar functions in other specific fields, e.g., the Agricultural Prices Commission in respect of technical and expert advice on pricing policies, the Bureau of Costs and Prices in respect of fixing cost prices of industrial products, and the Monopolies and Restrictive Trade Practices Commission in regard to prevention of concentration of economic power as well as product monopolies. We consider that a similar high-power organisation should be in existence for discharging the functions indicated above. We, therefore, recommend that a National Commission on Employment and Manpower Planning should be established. The Commission should enjoy the requisite autonomy and be in a position to take up *suo motu* the consideration of any matter relating to its functions.

10.27 It will be clear that the subject of employment and manpower planning will involve co-ordinated action by a number of departments concerned with different sectors including also a number of research institutions, voluntary organisations, etc. It is, therefore, necessary that the Commission on Employment and Manpower Planning suggested

above should have adequate authority and professional competence so as to make a comprehensive assessment of the employment and manpower situation in all its aspects and to be able to advise on the technical and policy measures necessary for tackling the situation.

10.28 The proposed Commission may be a compact body consisting of a small number of members some of whom, including the Chairman, should be full time members. The Chairman should be an eminent person with wide knowledge of or experience in various aspects of employment and manpower planning. The other members may be taken from amongst administrators or professional persons having suitable background or experience in fields such as (a) labour and employment, (b) statistics and economic analysis, (c) agriculture or industrial economics, (d) education and social sciences and (e) public finance and resources planning.

10.29 The Commission should have, *inter alia*, the following functions:—

- (a) to conduct periodical reviews of the situation pertaining to manpower, employment and unemployment indicating, where necessary, particular areas demanding attention;
- (b) to make projections of the labour force and different categories of manpower on the basis of available data and information with an adequate degree of disaggregation;
- (c) to evaluate the situation regarding supply of and demand for manpower at different levels and the likely developments therein, both short-term and long-term, having regard to the changes in the general economic situation, production targets and other relevant factors;
- (d) to undertake and promote research for evolving labour-intensive technologies for various sections of the economy and to disseminate the results of such research;
- (e) to undertake studies relating to employment norms in different sectors of the economy such as organised industry, mining, etc.;
- (f) to suggest from time to time, information to be collected and studies to be undertaken by different agencies; and
- (g) to advise the appropriate ministries or departments on policy matters and to

make suggestions to them for the better implementation of programmes in various sectors affecting employment generation.

10.30 The Commission should have the power to regulate its own procedures of functioning and it should be ensured that the various ministries and authorities concerned of the Central Government extend assistance and cooperation to it in all respects including the supply of necessary data and information required by it. Similarly, the other organisations and agencies in the country concerned with various aspects of employment, for example, state governments, public sector undertakings, nationalised banks, financial institutions, etc., should also extend their cooperation to the proposed Commission in the discharge of its functions by supplying to it necessary data and information whenever asked for and in other ways. The suggestions and recommendations made from time to time by the Commission should receive careful and prompt consideration by all ministries and agencies of the Central Government as well as by the State Governments and other organisations mentioned above. A Committee of Secretaries of the Central Government under the chairmanship of the Cabinet Secretary should be entrusted with the responsibility of considering the major issues arising from the Commissions' suggestions and recommendations and taking necessary decision on administrative and policy matters for the guidance of the various ministries, departments and agencies of Government.

10.31 In view of the vital importance of the problem of unemployment from the national point of view, we feel that it would be appropriate if Parliament is more closely and continuously associated with the programmes and policies of Government for dealing with this problem and is kept apprised of the development in regard to the employment situation from time to time. For this purpose we would suggest that Parliament may consider the desirability of constituting a committee somewhat on the lines of its existing financial committees like the Public Accounts Committee and the Committee on Estimates. The proposed Department of Employment and Manpower Planning as well as the National Commission should submit periodical reports to this committee on the employment situation in the country in general. Also, the Central Government should take steps to place before this committee the annual reports on the activities of the Department and the Commission.

10.32 In addition to the setting up of the Department of Employment and Manpower Planning and the National Commission as suggested above, we recommend that the following administrative arrangements should also be made : —

- (a) A suitable mechanism should be in existence for mutual consultation on a continuous basis between the Planning Commission and the proposed Commission on Employment and Manpower Planning.
- (b) The proposed Department and/or the Commission may set up technical working groups or advisory committees for the examination of technical and other issues regarding matters entrusted to them and for the technical appraisal of schemes, etc.
- (c) Suitable inter-departmental committees may be set up to examine administrative matters of common interest in this regard.
- (d) The Department should arrange for periodical conferences of representatives of central ministries, state authorities, professional and academic bodies, etc., for discussion of various matters relating to employment and manpower planning including administrative and technical issues.

10.33 We would like to emphasise that the subject of employment is not only the responsibility of the Government of India but also falls within the functions of the state governments, *vide* entries No. 23 and 24 in the List No. III—Concurrent List of the Seventh Schedule to the Constitution. We consider that as a counterpart of the Department of Employment and Manpower Planning recommended by us at the central level, there should be suitable organisations also at the state level. These organisations should have the same relationship with other state government departments as the Department of Employment and Manpower Planning would have with its sister departments at the Centre. However, it does not seem to be necessary to have at the state level an organisation similar to the National Commission recommended by us for being set up at the Centre.

10.34 The departments and ministries dealing with various Plan schemes and other measures concerned with employment generation already have arrangements for their periodical review and appraisal. Such review and appraisal organisations should be strengthened so as

to cover the aspect of employment generation in addition to the physical and financial aspects of the programmes. The arrangements in the departments for the formulation and review of Plan programmes should also be strengthened for undertaking the analysis and appraisal of employment generation in the fields of activity of the ministries or departments concerned. The strengthening of such arrangements in the executive and appraisal agencies at the state level would also be necessary. In order to undertake studies of this problem in an adequate manner, such departments and organisations may seek the co-operation and collaboration of the central Department of Employment and Manpower Planning and other suitable agencies such as the Institute of Applied Manpower Research, the Indian Statistical Institute, etc., and we have no doubt that such cooperation would be forthcoming in ample measure.

20.35. We have already emphasised that the actual manpower planning for different sectors should be primarily the responsibility of the sectoral agencies at the national level with, of course, the assistance of their counterparts in the states. In this connection it appears necessary to strengthen and suitably equip some of the existing organisations dealing with the collection of data and the appraisal of the progress of the programmes so as to assist in the planning and execution of sectoral programmes. In addition, we would also like to make the following suggestions :—

- (i) The Programme Evaluation Organisation of the Planning Commission should be geared to increase the coverage of its work. In particular, it should evaluate the development programmes as regards their effectiveness in respect of employment generation.
- (ii) With the increased emphasis on manpower planning and employment it would be necessary to strengthen at the state level the state bureaux of economics and statistics which are specialised organisations equipped to deal with the subject of statistics for all sectors of the economy. Their technical services could thus be more effectively utilised for developing employment statistics and manpower data.
- (iii) The statistical machinery charged with the collection of educational statistics, both at the Centre and in the states, should be strengthened so that in addition to the collection of educational statistics for administrative purposes, it

can also provide necessary data required for employment and manpower planning to the apex organisation at the centre and to the state departments dealing with employment and manpower planning.

10.36 The Department of Employment and Manpower Planning should be adequately equipped and provided with sufficient funds at its disposal to undertake studies directly in those states and union territories where a sufficiently well-equipped organisation for this purpose does not exist or cannot be established within a reasonable time. It should also be able to undertake such pilot studies and surveys in special fields as it may consider necessary, either directly or by assisting suitable research institutions or academic bodies.

10.37 We have outlined in the preceding paragraphs our suggestions for establishing a National Commission on Employment and Manpower Planning as well as a Department

of Employment and Manpower Planning at the Centre and for setting up similar departments at the state level, in order to secure more effective co-ordination among various agencies collecting data relating to employment and manpower, undertake studies and analyses of the employment situation in all aspects and promote more co-ordinated and purposeful formulation and implementation of the employment-oriented programmes of the different ministries and agencies of the central and state governments and other organisations in the country. In view of the vital importance of this problem, we hope that the suggestions made by us would enable the central and state governments to have before them a full and realistic appraisal of the changing employment situation in the country from time to time so that they may take timely and effective remedial measures in the short-term for tackling the problem of unemployment and also undertake suitable measures on a long-term basis for securing a better balance between the demand and supply of various categories of manpower.

CHAPTER XI

SUMMARY OF MAIN CONCLUSIONS AND RECOMMENDATIONS

11.1 In this chapter we propose to bring together the main conclusion arrived at and the more important recommendations and suggestions made by us in the foregoing chapters of this Report. We would, however, add by way of caution that this summary is by no means a substitute for the chapters of the Report which set out the considerations underlying the various conclusions and recommendations, the more important of which are indicated below :—

The dimensions of the problem

(1) The concepts and definitions of employment and unemployment which are in use in the 27th round of the NSS conform as closely as practicable to the recommendations of the Dantwala Committee on this point and they may be sufficient for our present needs. We would, however, emphasise that in a dynamic situation there can be no finality about the concepts and definitions of employment, unemployment and under-employment and the subject has to be reviewed at suitable intervals, so that while comparability is maintained as far as possible, the changing conditions and requirements of the users of data can be taken note of and satisfied by suitable modifications in the concepts where considered necessary. (Para. 4.10)

(2) It will be useful to lay emphasis, in any scheme of disaggregation of estimates relating to different aspects of the labour force, on the social, cultural and economic factors affecting the population as also the aspirations and job preferences of the unemployed and under-employed. (Para. 4.11)

(3) There is scope for further and more frequent studies to determine various characteristics of the labour force, for example, the following :—

- (i) the demographic characteristics of different segments of the labour force;
- (ii) their educational attainments and other professional and technical training or experience ;

(iii) their present state of employment and its assessment with reference to the above background ; and

(iv) their attitude towards employment, the cultural conditioning and inhibitions, if any. (Para. 4.11)

(4) For obtaining some of the data required for disaggregated estimates of employment and unemployment, it will be necessary to undertake special type studies. A few suggestions which could be taken note of in organising such surveys and studies have been made (Para. 4.12)

(5) There is a need for assessing the impact of changes in socio-economic conditions and the emergence of new technology on unemployment and under-employment so as to formulate the programmes of employment on a more realistic basis. (Para. 4.13)

(6) Preparations should be made to face the situation (resulting from changes in technology as it develops through the institution of short-term orientation courses which could be organised on the basis of needs as indicated by local studies, so as to enable a large majority of the affected workers to become absorbed into new types of employment. (Para. 4.13)

(7) There is a need for more specific and extensive studies regarding the causal factors which influence the participation rates of different groups of the population. (Para. 4.14)

(8) We consider that the decennial census with its countrywide organisation and its long traditions is an important source of data and that it should continue to be utilised to the extent possible, particularly in view of the importance of obtaining adequate data on the problem of unemployment. (Para. 4.18)

(9) We have combined the data on 'workers' and 'persons seeking work' from the 1961 Census, and compared them with the

total of the three groups, namely, 'workers', 'non-workers' with secondary activity and 'other non-workers' from the 1971 Census which taken together may reasonably represent those persons who constitute the labour force. It is seen that the percentage of the labour force to the total population estimated on this basis for the country as a whole was 34.6 in 1971 as against the corresponding percentage of 43.3 according to the 1961 Census. This difference includes partly the real change over the decade as well as the variation due to the different concepts and definitions adopted in the two censuses.

(Para. 4.25)

(10) Sample studies on the registrants on the live registers of employment exchanges in association with the NSS enquiries can give valuable information for the assessment of unemployment from these live register data, since the technical ratios estimated in this behalf through an earlier survey undertaken by the DGE&T in 1968 cannot be used now with confidence because of the limitations of these ratios including the coverage, the limited size of the sample and the lapse of several years during which the coverage and popularity of registration have increased considerably.

(Para. 4.40)

(11) We feel that the persons who work for less than 14 hours a week could appropriately be treated as requiring full-time employment. In our view, therefore, the estimates of the unemployed should include the persons who are wholly unemployed as well as those who have work for less than 14 hours in a week. From the NSS data in respect of the 19th round, information regarding the percentage of the unemployed as well as that of the workers having less than 14 hours of work per week is available. Applying these percentage to the 1971 population, we are of the view, that the likely number of unemployed persons in 1971 may reasonably be taken as 18.7 million, including 9.0 million who are unemployed, and 9.7 million who work for less than 14 hours a week and who may be treated on a par with the unemployed. These would include 16.1 million persons in rural areas (7.6 million males and 8.5 million females) and 2.6 million persons in urban areas (1.6 million males and 1.0 million females) and 2.6 million persons in urban these figures can only very roughly indicate the dimensions of the problem.

(Para. 4.56 and 4.57)

(12) The following suggestions for a few measures which will be of help in a better

assessment of unemployment and under-employment have been made :—

- (i) The decennial census of the population should attempt to obtain broad data on employment and unemployment according to meaningful concepts so as to provide base line information about the working population and its distribution by sex, education, industry, occupation, etc., including the availability for work of those who are currently not working, as well as its classification by other socio-economic conditions.
- (ii) While there may be no finality with regard to the concepts and definitions of employment, unemployment and under-employment, efforts should be made to keep the main concepts reasonably stable and to maintain the comparability of the results as far as possible by adopting a suitable classification of the data collected so as to reflect the changes in the concepts.
- (iii) The NSS should undertake every five years, full scale surveys into employment, under-employment and unemployment, including data on the per capita income and expenditure levels of households, so as to assess the employment situation in relation to suitably disaggregated segments of the population. In the intervening years, supplementary surveys or studies should be attempted on particular aspects of the problem.
- (iv) A large number of research agencies in the field are taking up studies on their own. These are useful for specific purposes but they could be made more useful if a suitable mechanism is established through a central agency for effecting co-ordination of such studies in respect of their subject coverage, sectoral and regional coverage, study designs, etc.
- (v) Despite large collection of data through different sources, there are serious gaps in the information with regard to geographical coverage as well as coverage of specific population groups and subject matter. We feel that the central agency suggested above should take steps to ensure that these gaps are covered as soon as possible by allocating the areas of work appropriately.

- (vi) It is observed that considerable data collected by different agencies in different areas remain sometimes unprocessed or unpublished due to various reasons. The central agency suggested above should therefore, co-ordinate, the work of various agencies so that the data become available without undue delays.
- (vii) We feel that it is desirable that efforts should be made to improve the employment exchange data as far as possible in regard to their range and coverage and that studies should be undertaken for interpreting the data from time to time both at the national and the state levels. The employment market information should also be improved so as to give information about the absorption and displacement of persons in various occupations and industries as well as regarding their educational qualifications. The coverage of the EMI should also be extended to include the smaller establishment on a sample basis to the extent possible.

(Para. 4.58)

Plan programmes

(13) The institutions providing credit to the small and marginal farmers and agricultural labourers should attempt to develop an integrated agricultural credit service along with provision of credit on the lines of the suggestions made by the National Commission on Agriculture. Such integrated service should include the organisation of facilities for the conversion of credit into inputs and services required by farmers. It should also look after the credit needs for ancillary occupations like animal husbandry, dairying, fisheries, forestry, etc.

(Para 5.3)

(14) We feel that it is necessary to identify on a wider scale all the other districts in the country in which the SFDA and MFAL schemes would be useful for improving the viability of small farmers and assisting the marginal farmers and agricultural labourers to improve their incomes and earnings. Both the schemes could usefully be amalgamated in a large number of areas and operated in an integrated manner so as to benefit both the categories of beneficiaries in the same areas. The extended coverage of the schemes should be brought into effect as early as possible and adequate provision made in the Fifth Plan for this purpose.

(Para 5.4)

(15) (i) The state governments and administrations of union territories should facili-

tate the task of the SFDA and MFAL agencies by taking steps to get their land record surveys completed speedily. For this purpose necessary funds should be provided as part of the Plan outlay.

(ii) These agencies should indicate to the state governments, etc. the selected areas where ground-water surveys should be undertaken on a priority basis and should also assist the state governments in providing soil-testing kits to extension workers and training facilities to the participants of the programmes, to the extent possible, out of the agencies' funds.

(Para. 5.5)

(16) We consider that for the proper and speedy implementation of the SFDA and MFAL programmes, it is necessary to develop suitable criteria which can be applied in an objective manner so as to reduce the scope for subjectivity in the identification of the beneficiaries. As far as possible, small compact areas or blocks suitable for particular programmes should be selected.

(Para 5.6)

(17) It is desirable to extend the benefit of credit under these programmes to those small and marginal farmers who have operational holdings including some part of leased land. For this purpose it should be ensured that such leased land is within a certain reasonable proportion of the total holding and that the person has got some continuity of operation in relation thereto. This would be particularly desirable in those areas where such tenancies have been protected according to local laws.

(Para 5.7)

(18) In order to ensure that the implementation of these schemes is properly coordinated, overseen and supervised, high level officials should be invited occasionally to attend the meetings of the agencies. At the state and regional levels, meetings of the heads of departments could be held to sort out operational problems.

(Para. 5.8)

(19) The state governments should attach greater importance to the coordination of the SFDA and MFAL programmes with other related programmes in the areas, e.g., ground-water surveys, land record operations, consolidation of holdings, rural electrification, etc.

(Para. 5.9)

(20) In order to meet the difficulty experienced by the agencies in extending assistance to sharecroppers due to the absence of records showing their rights or interest in land, the state governments should take steps to prepare the basic record of rights in land.

As suggested in our Interim Report, the agencies should take steps to persuade the banks to advance short-term and medium term loans to share-croppers for cultivation as well as for subsidiary occupations. It may be necessary for the agencies to subsidise such loans and impress upon the financial institutions the need of not insisting on sureties from share-croppers and oral tenants.

(Para. 5.10)

(21) Under the CSRE and other programmes, the payment of part of the wages in the form of suitable foodgrains would be very useful in meeting the requirements of the persons employed in the programmes. Alternatively, the availability of such foodgrains at reasonable prices should be assured through fair price shops or other approved dealers in the vicinity.

(Para. 5.11)

(22) (i) As suggested in our Interim Report, the allocation of funds under the CSRE for each district should be suitably determined after taking into account all relevant factors, such as its population, state of agricultural development, etc.

(ii) It is necessary to have a number of different types of projects so as to provide a project—mix which would meet the various requirements of areas in which the scheme is being implemented. Such project-mix should contain a larger proportion of works which are productive. It is also necessary that there be kept ready a shelf of programmes conforming to local planning which could be taken up whenever necessary so as to provide, as far as possible, continuous employment to the rural labour.

(iii) Arrangements for identifying the persons who are eligible to be employed could be made through surveys, etc., by the village extension officers.

(Para. 5.12)

(23) The scheme known as the Rural Employment Guarantee Scheme, being implemented by the Maharashtra Government has several salutary features which would help in tackling the unemployment problem and also in making a wholesome impact by providing assurance of work to the weaker sections of the people at the time when it is most needed. For these reasons this scheme merits the attention of the Government and should be extended to other states also.

(Para 5.13)

(24) (i) In order that the scheme for agro-service centres may be feasible for technically

qualified persons, it is necessary that suitable and convenient terms of finance for them should be arranged with the banks and that the procedures of the latter be streamlined.

(ii) The State governments and agro-industries corporations may consider giving priority for allocation of tractors to the selected technical persons desiring to set up such centres. Special training facilities in the actual operation and maintenance of the tractors, etc., as well as in business management and public relations should be provided to the young entrepreneurs in charge of these agro-service centres.

(iii) The state governments and agro-industries corporations should assist the entrepreneurs running these centres in obtaining dealerships/distributorships of products like fertilisers, fuel and lubricants from the manufacturers/suppliers concerned.

(iv) We recommend that the above mentioned issues might be considered by the Ministry concerned in order to facilitate the implementation of this scheme.

(Para 5.16)

(25) *The scheme for the creation of planning and design units for the preparation of rural water supply schemes in the states should be taken up along with ground-water investigation in all states.

(Para. 5.17)

(26) In making allocations out of the provisions of Rs. 100 crores made in the Central Government's budget for the year 1973-74 for programmes to generate employment opportunities for half a million educated persons in various fields, the need for widespread diffusion of the benefits of the scheme should be kept prominently in view and in particular the needs and requirements of the backward areas and tracts of the country should receive adequate attention.

(Para 5.19)

(27) We feel that the benefits accruing from some of the employment-oriented programmes initiated during the Fourth Plan such as SFDA, MFAL, CSRE, etc., should continue to be available to the people in the rural areas during the Fifth Plan period. For this purpose the question of continuance during the Fifth Plan of such of these schemes as are found to have sufficient potential for employment generation, should be considered, either as specific programmes or as part of some other Plan programme.

(Para. 5.19)

*See also item (111) below,

(28) (i) We feel that adequate provision of funds should be made for the continuing major and medium irrigation projects from year to year so that they are completed according to schedule and the benefits expected from them begin to accrue without delay to the regions concerned.

(ii) We consider that in formulating and preparing the project reports, etc., of the major irrigation schemes to be taken up in future as well as in reviewing the existing projects under construction, the necessary policy decisions regarding socio-economic as well as technical matters relating to important aspects of the projects should be taken in time.
(Para 5.24)

(29) We feel that during the Fifth Plan period efforts should be directed towards the completion of all the major and medium irrigation projects already taken up and also the execution of new projects, so as to create an additional irrigation potential of about 6 to 7 million hectares by the end of the Fifth Plan.
(Para 5.25)

(30) Government should consider the desirability of undertaking detailed surveys for assessing the technical feasibility of the National Water Grid Scheme as early as possible.
(Para 5.26)

(31) We feel that area development programmes need to be taken up in the command areas of all the major and medium irrigation projects which have been completed so far as well as of those which are under construction or may be taken up in future. Such programmes should, however, be initiated sufficiently in advance of the completion of the irrigation works so that the development of irrigation and other facilities can be fully utilised within as short a period as possible after the completion of the projects.
(Para 5.27)

(32) More studies in depth would be required for assessing the impact of the programmes of rural electrification on employment in the rural areas. A further evaluation of employment generation through rural electrification since 1965 might be undertaken by the Programme Evaluation Organisation of the Planning Commission.
(Para 5.31)

(33) (i) To ensure adequate availability of power for agriculture and industry, it will be necessary to provide for some cushion in the generating capacity of our power units.

(ii) We feel that it is desirable that the programme of power generation should be so planned that a sufficient proportion of the total capacity is created in the form of thermal power stations in different parts of the country. In this connection, the feasibility of setting up large thermal power stations at the pit-heads in the coal belt areas needs to be examined.

(iii) While planning, emphasis should be laid on schemes of power generation and acceleration of rural electrification programmes particularly in the backward areas so as to bring them into line at least with the national average. In a long-term perspective the objective should be to reach almost all the villages in the country within a reasonable period of about 10 to 15 years.
(Para 5.32)

(34) We consider it of importance that the programmes of the Railways for new railway lines, the doubling of the existing tracks and the conversion of narrower into broader gauges should be undertaken on a larger scale in future years and a higher priority should be accorded to them.
(Para 5.36)

(35) The existing network of railway lines should be strengthened over those sections where at present the traffic carrying capacity is inadequate, so as to facilitate the transport of the increasing volume of raw materials and finished products.
(Para 5.37)

(36) In view of the importance of road communications as an essential part of the infrastructure for socio-economic development, we feel that efforts should be made to adhere to the programme for completion of the construction of roads worked out in the Chief Engineers' Plan. In order to attain the total expenditure of Rs. 3,920 crores on main roads as envisaged in that Plan, and taking into account the total estimated expenditure of Rs. 1,520 crores till the end of the Fourth Plan, it would be necessary to undertake a programme of the order of Rs. 2,400 crores for the construction of such roads in the years up to 1980-81. We, therefore, suggest that a suitably phased programmes over the seven year period from 1974-75 to 1980-81 may be undertaken.
(Para 5.40)

(37)* We feel that in regard to 'rural roads' (comprising 'other district roads' and 'village roads') the tempo of construction needs to be stepped up so as to complete the programme envisaged in the reappraisal by the Sinha Committee by the end of the Sixth Plan, i.e., by 1983-84. We would, therefore, suggest that the

*See also item (133) below,

outlay on such roads during the Fifth Plan may be of the order of Rs. 650 crores while that during the Sixth Plan may be Rs. 780 crores. (Para 5.41)

(38) We feel that while a larger outlay for the development of roads is essential, the question of constituting a new non-lapsable fund, as suggested by our Working Group on Plan, would not be free from difficulties. A possible approach might be to consider the augmentation of the resources of the existing Central Road Fund by transfer of a larger share of the revenues from the customs and excise duties on motor spirit. (Para 5.44)

(39) The development of road transport and of the connected industries could have a large employment potential over the years. The expansion of road transport has a multiplier effect not only on the economic activities directly connected with it like the manufacture of automobiles and commercial vehicles, but also on other services and activities like tourism, the development of trade, greater mobility of the people, etc. Further, the development of the automobile industry would in turn lead to the expansion or establishment of ancillary and feeder industries. The need for the development of road transport and of the connected automobile industry has to be viewed in this perspective and due emphasis laid on their promotion and development. (Para 5.46)

(40) The implementation of the Fourth Plan road programmes of the metropolitan cities of Bombay, Calcutta, Delhi and Madras should be speeded up. Studies should be made of the transportation and traffic problems, of some of the other growing cities like Bangalore, Hyderabad, Ahmedabad, Kanpur and Poona. (Para 5.47)

(41) It is essential for attaining the objective of self-reliance as also for increasing our earnings of foreign exchange that a much larger proportion of our overseas trade should be carried in Indian bottoms. Viewed from several angles including the growth of coastal shipping, the development of ancillary industries, the manufacture of various items and the considerable volume of employment generation, the development of ship-building industry is of importance. (Para 5.49)

(42) We feel that long-term programmes of developing the ship-building and repair facilities in our country should be undertaken. (Para 5.50)

(43) (i) It is necessary that cargo handling facilities at the ports and haulage and trans-

port facilities in the port areas, etc., are provided and expanded sufficiently.

(ii) Sufficient outlay also requires to be provided for the development of intermediate and minor ports so that the establishment of industries in the several areas served by such ports is facilitated. (Para 5.51)

(44) (i) The Inland Water Transport Committee had made a number of recommendations relating to the improvement of production of ship-building yards, evolving standard designs of hulls and propelling machinery, the deepening and widening of certain canals, channel conservancy, etc. We understand that some of these recommendations remain to be implemented. We feel that early consideration should be given to the remaining recommendations of the Committee.

(ii) The question of establishment of suitable organisations in the riverine states should be taken up so as to speed up the pace of progress of the schemes recommended by that Committee.

(iii) We also suggest that some pilot studies may be undertaken by suitable organisations regarding the social cost-benefit aspect of the development of inland water transport in different regions. (Para 5.54)

(45) The tourist industry, if developed adequately, can increase employment considerably and have a stimulating effect on a wide range of industries and tertiary activities, particularly in the services sector. The provision of 32,800 rooms in approved hotels by the end of the Fifth Plan to cater to the requirements of the increased inflow of foreign tourists inside this country, which is expected to reach a figure of 8 lakhs per year by the end of the Fifth Plan, can provide considerable direct and indirect employment. (Para 5.57)

(46) It is desirable also that suitable facilities and amenities be provided for the growth of internal tourism at a faster rate. (Para 5.58)

(47) In view of the accepted policy of fulfilling the need based demands of the people and the expansion of literacy in rural areas, the expansion of postal and telecommunication services should receive adequate attention and a programme for the steady expansion, on a long-term basis, of these facilities to rural areas be adopted for implementation. (Para 5.60)

(48) The programmes for the expansion of broadcasting and allied facilities will, besides creating employment opportunities, give considerable fillip to the further growth and ex-

pansion of industries manufacturing radio receivers, transistor sets, etc., and also to the development of the electronics industry in the country. Besides, a number of other facilities and services will also develop in the tertiary sector, for example, repair and overhaul facilities, sales, transportation, etc. All these activities are expected to have a multiplier effect on the generation of employment in these fields. (Para 5.61)

(49) The expansion of family planning services will create jobs for the medical, para-medical and other non-technical including clerical personnel, etc. This programme should be co-ordinated with other programmes in the rural areas and with the social welfare programmes like maternal and child health programmes, nutritional schemes, etc.

(Para 5.62)

(50) The pace of execution of the rural water supply schemes needs to be accelerated in view of the magnitude and urgency of the problem. The question of providing the basic need of potable water supply to all the villages in the problems areas, including difficult and scarcity areas and villages suffering from endemic diseases, should be accorded a higher priority and adequate provision made for covering such villages during the Fifth Plan. Such a programme would involve an estimated outlay of about Rs. 650 crores. The question of providing supplementary sources of water to the villages in other areas would also have to be taken thereafter. (Paras 5.66 and 5.68)

(51) By the end of the Fourth Plan, 1,274 towns with a population of 1.82 crores would still require to be provided with protected water supply involving an estimated outlay of Rs. 275 crores. Besides, the water supply schemes of many towns would require to be improved and modernised. All these programmes of water supply in the urban areas would generate considerable employment.

(Para 5.71)

(52) Apart from the provision of house sites for the landless labour in the rural areas, there is need for assisting the small and medium farmers and non-agricultural workers to improve their condition of living by constructing better houses. It is essential that a larger scale programme of construction of rural houses should be undertaken both by the Centre and State Governments during the succeeding years. There should be a phased programme of constructing about 2.92 million houses in the rural areas involving a total cost of Rs. 875 crores. Out of this amount, a sum

of the order of Rs. 700 crores could be provided from their own resources by the persons constructing houses leaving a sum of the order of Rs. 175 crores to be provided by way of loans from the LIC, the rural housing finance corporations, commercial banks, etc.

(Paras 5.77 and 5.78)

(53) It is desirable to plan for an increased level of house construction activities in the urban areas so as to prevent any deterioration of the position in this respect. We feel that the present rate of house construction in the urban areas should be stepped up substantially say, by 40 per cent involving an additional outlay of the order of Rs. 2,000 crores over the Fifth Plan period. With this additional investment it should be reasonably feasible to construct about 1.35 million additional houses. We suggest that out of this total number, the construction of 0.75 million units may be undertaken in the public sector through the agency of the state housing boards, etc. In this sector the bulk of the provision should be for the economically weaker sections and the low income groups, i.e. 4 lakhs units for the economically weaker sections and 3 lakh units for the low income groups. The remaining 0.6 million units may be expected to be put up by the individuals and others in the private sector. The total investment for such a programme of 0.75 million units in the public sector may be of the order of Rs. 800 crores. On the other hand, the investment required for putting up 0.6 million units in the private sector would be of the order of Rs. 1,200 crores.

(Para 5.80)

(54) Such an expanded activity in the sphere of housing in urban as well rural areas would need a suitable administrative and organisational set up. For this purpose, the activities of the state housing boards would need to be extended to a larger number of cities and towns. In respect of rural areas we would reiterate our earlier suggestions made in the Interim Report for providing the necessary institutional and organisational framework.

(Para 5.84)

(55) Besides the rural housing finance corporations, the other government agencies and financial institutions like the LIC and the nationalised banks should make their contribution to such a programme.

(Para 5.85)

(56) We consider it of importance that the LIC should play a larger role in promoting rural housing. The resources of the Housing

and Urban Development Corporation (HUDCO) will also have to be augmented.

(Para 5.86)

(57) We feel that to the extent justified by their administrative and personnel resources, commercial banks should provide direct assistance to persons desiring to construct their own houses. They should also divert some of their resources for refinancing the housing finance activities of the proposed rural housing finance corporations.

(Para 5.87)

(58) The rural housing finance corporations through their own branches or with the assistance of various banking and cooperative institutions could promote suitable schemes for attracting long-term as well as medium-term savings from persons in the rural areas.

(Para 5.88)

(59) There is need for developing a large number of suitable house plans to meet the diverse requirements of the different sections of the people and the varying local conditions.

(Para 5.89)

(60) Steps should be taken to ensure adequate and timely supplies of essential building materials. Their production should also be stepped up. It is also necessary to take steps to maximise the use of materials which are produced or obtained locally and to reduce, as far as possible, the use of scarce materials like steel and cement.

(Para 5.90)

(61) One of the problems hindering the proper implementation of the Plan programmes is the lack of foresight and care in the preparation and selection of projects before the outlays and targets are fixed by the planners.

(Para 5.91)

(62) In view of the number of programmes in different sectors which will need to be dovetailed into each other both at the planning and the implementation stages, it is necessary that there should be co-ordination committees of the technical officers of various departments functioning effectively at the district level as well as similar committees composed of higher level officers functioning at the regional and/or state levels. We suggest that such district and/or state level committees should be established where these do not exist at present and the existing ones strengthened wherever necessary. The district level committees should be supported and assisted by a strong planning cell in drawing up an integrated plan and in the co-ordination of programmes in the course of implementation of the district level schemes, the working of the district level com-

mittees should be integrated with the functioning of the state-co-ordination committees. The planning cells at the district level may, in the first instance, be established on a pilot basis in some districts. Planning cells at the headquarters or at the regional offices of the departments should undertake technical examination and scrutiny of some schemes at the district level and of the schemes concerning more than one district. They should be able to avail of the technical advice of such consultants as may be necessary.

(Para 5.93)

(63) To support the working of these co-ordination committees at the regional or state level, a committee of secretaries and important heads of departments should be set up.

(Para 5.94)

(64) Another major lacuna in the implementation of the Plan programmes is that the benefits of such programmes in general and even of the programmes intended for the weaker sections of the community, do not generally accrue to them in full measure, but flow largely to the more influential and better-off sections of the community.

(Para 5.95)

(65) As in the States of Maharashtra and Gujarat, in other States also suitable steps should be taken for the establishment of panchayati raj institutions where they have not been established, and for vesting them with necessary powers and responsibilities for the execution of rural development projects and employment-oriented schemes.

(Para 5.96)

(66) We feel that the weaker sections should be encouraged and assisted to form at the local level organisations which should be constituted entirely from amongst these weaker sections. They should be kept fully in the picture in the selection of schemes. The legally constituted democratic bodies should take special care to arrange for consultations with these organisations.

(Para 5.97)

(67) The maintenance and upkeep of capital works specially roads, canals, irrigation works, etc., is very important. At the stage of formulation of a scheme at either the state or central level, adequate provision should be made for the maintenance of the durable assets created by the schemes up to the end of the Plan period during which these are completed. Such funds should not be diverted to other programmes.

(Para 5.98)

(68) The agency which will be responsible for the proper maintenance of such assets in

the subsequent period should be clearly specified and its express acceptance of such responsibility obtained before the work on a scheme is commenced. Steps should be taken to ensure that the necessary financial resources for meeting such expenditure are made available.

(Para 5.98)

(69) We recommend that at the time of sanctioning the projects, the full financial implications including the phasing of expenditure in subsequent years should be kept prominently in view and the number and relative priority of the projects to be taken up should be regulated according to the likely resources available in future years.

(Para 5.90)

(70) Preparatory work for the prior planning of the programmes to be taken up in the Fifth Plan should be initiated immediately, especially for surveys of the resource potential and of the requirements of the areas concerned, the assessment of the feasibility of programmes, preparation of project reports, etc. Steps should also be taken from now on to estimate the manpower requirements and to spell out the antecedent steps needed to ensure their availability at the relevant time.

(Para 5.100)

Strategies for employment generation

(71) We are of the opinion that efforts should be made to bring about better harmonization of the incentives given by the state governments and that the major concessions to industries should be determined on principles agreed to at the national level, having due regard to the great need for promoting the establishment of new industries in the more backward states and regions.

(Para 6.22)

(72) An integrated approach to the problem of economic development of under-developed and backward areas has still to be worked out. Since such development of these areas requires also the building up of proper infrastructure, the present position regarding the use of incentives for promoting such development has involved a somewhat fragmented and less efficient use of scarce resources. A more purposeful, vigorous and co-ordinated policy in regard to incentives combined with action to build up infrastructure would, therefore, appear to be called for.

(Para 6.27)

(73) (i) The quantum of incentives has to be determined with reference to the needs and circumstances of the situation regarding the relative level of development of industries and it should be adequate for achieving the objective in view.

(ii) It appears desirable that while providing incentives for say the greater use of labour, certain disincentives should also be introduced against the greater use of capital, since such a combination of incentives and disincentives would tend to reduce their net impact on the revenue resources of the government.

(Para 6.30)

(74) (i) There has been a hidden subsidy in the loans at concessional rates of interest charged by the financial institutions. This subsidy should be done away with not only with reference to the large scale but also the small scale industries as it is likely to promote a greater use of capital and capital-intensive techniques. Where the resulting increased cost would adversely affect the development and welfare efforts, a subsidy could be given towards off-setting the increase in costs. In a few exceptional cases where the development of a particular industry is considered to be of vital importance on the ground of its potential contribution to the national economy and where a subsidy in another form would not be feasible, the financial institutions may be permitted to charge concessional rates of interest.

(ii) The abolition of such subsidy should not, however, be taken as affecting the existing scheme of concessions in interest rates on advances made by the nationalised banks to selected low income groups.

(Paras 6.32 and 6.33)

(75) We are of the opinion that a relief on the basis of the additional labour (above the level existing in the year prior to the commencement of the scheme) employed by the existing units and of the total labour employed by new units should be provided in the form of a tax rebate equal to a percentage of the tax payable which should be linked with the wage bill for additional labour employed with a suitable weightage for wages paid to the industrial workers.

(Para 6.36)

(76) We recommend that in the case of priority industries and of industrial units in backward areas, the units should be permitted to create a special investment reserve fund by transferring to it upto 30 per cent of their pretax profits, to be utilised in priority industries or other specified types of investment or for investment in selected backward areas.

(Para 6.39)

(77) We are inclined to agree with the view that a suitable system should be devised

by which the total depreciation allowed — whether it be called development rebate or additional depreciation allowance — should be adequate to cover the replacement cost of plant and machinery. We consider that a periodical mark-up of the value of plant and machinery by a suitable proportion is essential in the context of the rising prices of plant and machinery and a suitable system should be devised for this purpose with such necessary conditions and procedural details as may be prescribed. (Para 6.40)

(78) In order to stimulate investment, the long-term capital gains arising from the sale or transfer of an asset should be exempted from the capital gains tax if the proceeds are invested in a new industrial undertaking. (Para 6.41)

(79) (i) We feel that there is need for making determined and sustained efforts for extending promotional and technical facilities like common production centres, facilities for testing and quality control, training, production of proto-types, market information, preparation of designs and project reports, etc., to other centres where a number of small units may exist and to ensure that they are made available to all the small scale units.

(ii) In the case of medium and large scale industries also, certain facilities like research and development activities, market research, quality control, pre-shipment inspection, etc., would be useful in accelerating their growth and maintaining their viability. (Para 6.42)

(80) (i) We feel that an appropriate agency to promote the development of backward areas would be a separate organisation to be set up in different areas, which may be called the Regional Development Corporation. Such corporations should be responsible for selecting suitable regions where growth centres could be established and developed. Such development could also be undertaken around the existing industrial complexes. These corporations could be entrusted with the task of coordinating the activities of various authorities concerned. They should play an active role in the preparation of area development plans and co-ordinate the efforts of the agencies concerned. In the initial period certain ancillary facilities may be provided by them. Although the role of these corporations is generally expected to be that of planning and promotion, they may themselves play a direct entrepreneurial role for the removal of specific bottlenecks to area development.

(ii) In order to assist the state governments to set up such regional development corporation, the Government of India may consider providing some part of the seed capital, securing where necessary, the services of managerial and technical personnel and providing training facilities to them. (Para 6.44)

(81) We recommend that there should be a periodical review of the position in the areas selected for development by regional development corporations. (Para 6.45)

(82) (i) In our view the quantum of subsidy allowed to industries to be set up in backward areas should be increased further from 15 per cent to 20 per cent of the fixed capital. (ii) At the same time it is necessary to take vigorous measures for the development of infrastructural facilities in the backward areas, since without such development the provision of capital grant alone would not provide adequate stimulus for the growth of industries. (Para 6.46)

(83) The concession of a transport subsidy equal to 50 per cent of the cost of transport of both raw materials and finished goods for all new industrial units to be set up should be admissible in other difficult and inaccessible areas also, as it is admissible at present in the States of Jammu & Kashmir, Assam, etc. (Para 6.47)

(84) A scheme of assistance for meeting the costs of movement of certain categories of skilled personnel somewhat on the lines of schemes adopted in other countries, restricted to certain areas having special features or to some categories of skilled personnel who may be in short supply in particular areas, might be introduced on an experimental basis. (Para 6.48)

(85) (i) In our view, industry should be encouraged to go in for double and triple-shift working not only from the point of view of increased production but also from the point of view of increased employment.

(ii) The existing provisions in respect of depreciation allowance for the second and third shifts need to be reviewed for this purpose. (Para 6.49)

(86) Industry should be encouraged to introduce multiple shift working by the grant of suitable fiscal and financial incentives with

adequate safeguards to ensure that these benefits are properly linked to the increase in production and employment actually resulting from the additional shifts.

(Para 6.50)

(87) We consider that at the present stage a system of tax rebate related to the total value of exports made by an industrial unit or an export house should be allowed. We further feel that a system of import entitlement under which import licences are given to eligible exporters to import raw materials and other essential items required for the production of goods meant for export should also be adopted to promote the export of labour-intensive good.

(Para 6.56)

(88) We consider that the policy of giving tax concessions in respect of export of specific items of labour-intensive industries such as products of handloom, handicrafts, etc., should be accepted and necessary fiscal, administrative and other measures taken in ports substantially.

(Para 6.58)

(89) Government should consider the possibility of offering facilities and concessions like credit to the prospective buyers abroad of our industrial machinery, equipment, etc., in order to improve the competitive position of our products.

(Para 6.57)

(90) The supply of essential raw materials at international prices to certain industries should be considered if it can place an industry in a better position to compete in the world markets and thereby to increase its exports substantially.

(Para 6.58)

(91) (i) We feel that there is a case for earmarking for export purposes a percentage larger than 5 per cent (which is being contemplated at present) of the production of non-priority industries which use substantial imports.

(ii) More effective measures should be taken to ensure that export obligations of the units in the priority list are, in fact, met.

(Para 6.59)

(92) Our aim should be to maximise the export of goods in as finished a form as possible and thereby to reduce to the minimum the exports of bulky raw materials and semi-processed goods. For this purpose it will be

useful if the items of raw materials, minerals, etc., which would lend themselves to further processing or finishing at an economic cost and without impairing their export worthiness, could be identified and their production and processing organised within the country.

(Para 6.61)

(93) We feel that adequate arrangements should be made for the proper maintenance and preservation of our historical and archaeological monuments and for the provision of necessary facilities for the tourists even though this may involve additional expenditure.

(Para 6.63)

(94) We feel that the hotel industry is still at a nascent stage of development and it would be necessary to foster and promote it at least for some time so that it could adequately buttress the growth of tourism in the country.

(Para 6.65)

(95) We feel that the hotel industry should be given fiscal incentives and tax concessions so as to enable it to meet the increased requirements of the tourist industry. For this purpose a tax concession on the lines of the tax rebate, and the extension of some of the benefits and facilities allowed to other priority industries, might be considered for this industry

(Para 6.66)

(96) We consider that it is of importance that the question of providing some measure of insurance against loss of employment should be given a high priority and the feasibility of the introduction of a scheme on the basis recommended by the National Commission on Labour be examined as a matter of urgency.

(Para 6.73)

(97) In a situation of labour surplus in the country when the incidence of unemployment and under-employment is so high, wide prevalence of overtime working is socially undesirable. Definite steps should be taken, in our view, to encourage the recruitment of new labour rather than the engagement of the existing labour on overtime work in the industrial and tertiary sectors.

(Para 6.74)

(98) In our view it would be desirable to consider the suggestions relating to the reduction of the number of weekly working hours from 48 hours to 42 hours and the adoption

of a seven-day week, after ascertaining the views of labour in this regard.

(Para 6.75)

(99) It is desirable to encourage the employment of women at least upto the level at which it has been prevailing hitherto by offering some incentives to those employers who maintain the ratio of women in their labour force at a prescribed level.

(Para 6.76)

(100) In order to secure a reasonably high rate of economic growth, it is necessary to restrict the growth of population effectively, and for this purpose the adoption of a well-concerted and positive programme of population planning is very essential.

(Para 6.81)

(101) (i) The national target of family planning provides, as mentioned in the Fourth Plan document, for the reduction of birth rate to 25 per thousand by 1980-81. As a matter of fact we should think in terms of bringing down this rate to a still lower level so that around the end of the 1980's, the size of the population becomes stabilised.

(ii) It is essential that vigorous and concerted efforts for the intensification and extension of the family planning programmes be made so that the national targets can be achieved.

(Para 6.86)

(102) We feel that the provisions regarding the circumstances in which induced abortions could be permissible should be further liberalised and they need not be limited only to the cases of grave injury to the physical and mental health of the pregnant woman.

(Para 6.87)

(103) One of the essential practical steps for the implementation of the family planning programmes in the rural areas would be the provision of the essential facilities like hospitals, health centres, medical and para-medical staff, and inputs.

(Para 6.88)

(104) For the success of the family planning programme, besides a well-knit and effective administrative organisation, there must be emphasis on basic research in reproductive biology, demography, communication and methods of evaluation. It would also be necessary to strengthen the data base in all these subjects. Further research would be needed for developing more efficacious contraceptive devices, etc.

(Para 6.89)

(105) An attack on this problem could take various forms besides the conventional methods of contraception and legalised abortion, e.g., postponement of the age of marriage, motivation of young men and women for longer abstention from marriage and the creation of a proper social atmosphere for this purpose, promotion of female education and literacy, measures for increased participation of women in economic activities, etc. In our social conditions, the minimum age of marriage could easily be raised to 21 for boys and 18 for girls from the existing levels of 18 for boys and 15 for girls.

(Para 6.90)

(106) While the spread of education, particularly among women, would no doubt have beneficial effects, a sustained effort at dissemination of information and instruction about population matters, proper motivation, provision of medical services, etc., would be required for a greater measure of success of the programme.

(Para 6.90)

(107) Some states have taken steps to introduce education on population in their school curricula. Efforts are, however, necessary for the adoption of such measures by other states also. Apart from the education on population imparted in the schools, arrangements are also needed to impart such training those young men and women who have not been to school or who have since left school. Further, education on population should find a prominent place in adult literacy programmes.

(Para 6.91)

Agriculture and allied activities

(108) We agree broadly with the view of the Working Group on Agriculture that the approach to the programmes of development for the rural areas must be employment — oriented for the next Plan period, and should include a massive programme of rural works encompassing irrigation, soil conservation, land reclamation and rural roads.

(Para 7.11)

(109) The scope for expansion of minor irrigation in a number of States is quite large. Such works could be taken up over an area of 15 million hectares during the Fifth Plan period.

(Para 7.16)

(110) In view of the limited potential for the expansion of irrigation works in some of the States like Rajasthan, Maharashtra, Haryana, Tamil Nadu, Gujarat and Madhya

Pradesh, there is need for undertaking an intensive survey of the ground-water resources, especially in the arid and drought-prone regions of the country.

(Paras 7.17 and 7.18)

(111) In view of the importance of irrigation, we recommend that effective steps be taken to extend the activities of ground-water surveys to all those areas of the country which are not, at present, covered by the surveys undertaken by the Central Ground-water Board and by the State Ground-water Boards. The existing organisations at the State level would need to be strengthened and equipped so as to undertake and complete ground-water survey within a reasonable period. In other States the need for setting up similar organisations with adequate staff and equipment should be examined on an urgency basis.

(Para 7.19)

(112) We feel that care would need to be taken to ensure the optimum utilisation of the water resources and all possible avoidance of wastage. The appropriate soil and water management of irrigated land would require a number of construction activities, the exact nature of which would differ from region to region. It may therefore be necessary to undertake detailed studies of the cost of land shaping and of construction of field channels and drainage works needed for making the land suitable for cultivation once irrigation is available. We consider that adequate provision should be made for these items in all projects of minor irrigation.

(Para 7.20)

(113) In view of the employment potential during the construction phase of the programmes of soil conservation and land reclamation, we recommend that programmes of soil conservation over an area of 15 million hectares, and land reclamation over 5 million hectares be undertaken during the Fifth Plan period.

(Para 7.21)

(114) We feel that there is need for intensifying research in a number of alternative patterns of multiple cropping suited to the local conditions in the different regions. It would also be necessary to try out on a sufficient scale in the cultivators' fields the results of experiments being undertaken on crop rotations in the research institutions. A programme of bringing an area of 9 million hectares under multiple cropping should be undertaken during the Fifth Plan period.

(Paras 7.22 and 7.23)

(115) In view of the rising cost of draught animals and increased expenses on their maintenance especially for the small farmers and in the low rainfall areas, we feel that the state governments should assist and promote the development of custom services by setting up agro-service centres equipped with tractors in adequate numbers. It should be ensured that the services made available to the small and marginal farmers are timely and prompt and that undue preference is not shown to larger farmers. The possibility of such centres providing draught animals on hire to small and marginal farmers should also be explored.

(Para 7.27)

(116) (i) While we have no hesitation in suggesting programmes of energising tubewells and pumpsets through the extension of rural electrification and of promoting the use of improved minor implements, we feel that the introduction of more sophisticated and highly mechanised equipment is likely to have considerable repercussions on the employment of labour on the farms and may in the long run lead to the displacement of labour on a sizeable scale. On the other hand there is a keen demand from the farmers in some areas of the northern states for the use of sophisticated mechanised equipment to overcome the problems arising from the adoption of multiple cropping. In these circumstances we are of the view that a selective approach needs to be adopted in this matter and that any indiscriminate extension of mechanisation needs to be effectively discouraged. For the purpose of determining the proper type and level of mechanisation suitable for the conditions prevailing in each region, more detailed studies should be undertaken in different regions of the country.

(ii) In order to cater to the requirements of small farmers a good deal of local and adaptive research would be needed so as to evolve suitable designs for more efficient implements and for less expensive equipment.

(para 7.28)

(117) We consider that two programmes should prove crucial for the low rainfall areas: first, the techniques for conservation and economic use of available water and soil moisture, and second, the evolution of a suitable cropping pattern for the particular conditions in each area. We recommend that high priority should be given to the intensification of research for evolving suitable crop varieties and suitable cropping patterns in the low rainfall areas. Additional programmes to

provide supplementary sources of employment and income would also have to be thought of. These could include road construction, animal husbandry, setting up of small industries, etc.

(Paras 7.29 to 7.31)

(118) The programme of extending milk production and dairying activities is eminently suited to serve the needs of the small and marginal farmers by providing them part-time occupation and supplementary income. The form of the organisations for undertaking such programmes would have to allow for considerable variations in the different States. Whatever be the form of the apex organisation, it is essential that the small and marginal farmers who will be the main participants in, as also the beneficiaries of, the programme should be organised on proper lines at the village and block levels. The Government should foster and promote this programme by providing financial assistance for the capital investment, creating the apex organisation and setting up suitable agencies at the village and block levels for undertaking milk production, collection, sale, etc.

(Paras 7.33 to 7.37)

(119) In the development of poultry farming, preference should be given to areas which have got facilities of communication and transport to large urban centres. The Government propose to encourage the establishment of egg collection and marketing centres at Calcutta, Delhi, Bombay and Madras in the cooperative sector with facilities of cold storage. Such arrangements would also need to be made for the organised marketing of poultry products in other large cities and towns.

(Para 7.38)

(120) In piggery development some bacon factories are facing difficulties in the full utilisation of their installed capacity due partly to the shortage of quality pigs and partly to the lack of demand for piggery products. A larger availability of better quality pigs, better utilisation of the capacity of piggery units and a higher output should result in a progressive reduction in the production costs and this may help improve the demand.

(Para 7.39)

(121) Sheep breeding could be developed profitably in the desert areas of Rajasthan and Gujarat as well as in the hill areas of Jammu and Kashmir, Himachal Pradesh and Uttar Pradesh. The sheep extension programme would have to be integrated with fodder development and the provision of

greater veterinary facilities so that this occupation may expand in a big way with exotic varieties of sheep.

(Paras 7.40 to 7.42)

(122) For augmenting the foreign exchange resources of the country as well as supplementing the protein content of our diet, and for providing more employment particularly in the maritime States, it is essential that greater attention be paid to the development of marine fish resources. Steps could also be taken to exploit the availability of seaweed and algae for their protein content and iodine, and also for compost and fertilisers.

(Para 7.43)

(123) An important activity for the diversification of agricultural practices of farmers with small and marginal holdings, especially on the periphery of the bigger towns, urban areas and growth centres is the cultivation of vegetables. There are however marketing problems which have to be faced. It would be necessary to develop more facilities for cold storage in and around major cities as also to organise the marketing of the produce by the formation of suitable organisations.

(Para 7.44)

(124) There is need for the extension of cultivation of apples, pears and stone fruits like apricots, plums, etc., in the mountainous and sub-mountainous regions of northern India. Greater stress would also be needed on aerial spraying of pesticides for crops like mangoes, bananas and citrus fruits.

(Para 7.45)

(125) Some studies have indicated that there is a wastage of nearly 30 per cent of the fruits and vegetables produced in the country while barely 0.5 per cent of the produce is processed by the processing units. Greater importance therefore would have to be given to the promotion of processing industries in the producing areas. Organisational arrangements would also have to be made for the collection of fruits from farms, their transportation, storage and processing at convenient centres as well as for their sale at competitive prices.

(Para 7.46)

(126) The fruit and vegetable processing industry is stated to be facing difficulties due to several factors, such as high costs of materials, high and fluctuating prices of sugar and heavy overheads. It is important to take remedial measures to enable the industry to

become competitive in the world markets in which there is an increasing demand for tinned products.

(Para 7.47)

(127) There are other valuable crops including plantation crops like tea, coffee, etc. which are grown in the country and provide employment to large numbers of persons. As these plantation crops are highly labour-intensive, and in view of their importance as earners of foreign exchange, as also of the increasing demand for them within the country, there is need for increasing their production and extending their area to the extent feasible.

(Para 7.48)

(128) Cashew is another crop which is an important foreign exchange earner and employs a large number of persons in its processing industry. Owing to the cashew nut producing countries themselves taking to mechanised processing of cashew kernels, it is apprehended that our supply of imported raw nuts required for the processing industry would be seriously affected. Therefore for maintaining the current level of production in the cashew processing industry, and also that of our earnings of foreign exchange, it is desirable that the cultivation of good quality cashew nuts in the country should be promoted.

(Para 7.49)

(129) In order to meet the deficiency in the production of edible oils in the country, it is necessary to explore the possibilities of extending the area under oilseeds and to introduce the cultivation of other oilseeds like sunflower in the different States. The cultivation of sunflower can help increase the intensity of cropping, and provide additional employment as well as add to the income of the farmers.

(Para 7.50)

(130) Another oilseed, which is a good source of both oil and protein and can be used for the manufacture of various food items and for industrial purposes, is soyabean. There are, however, some constraints hampering the extension of cultivation of this crop which are likely to be overcome in the near future. It should then be possible to increase the coverage under this crop substantially. Some technical problems also exist in the processing of this oilseed which need to be removed early.

(Para 7.51)

(131) A crop which can enhance the farmers' incomes by inter-cropping with sugarcane, especially in the irrigated areas of the northern states, is sugarbeet. It can supplement the raw material requirements of sugar factories enabling them to continue their operations for a period of two to three months. The major problem in the extension of sugarbeet cultivation is, however, the cost of equipment required to be erected in the existing factories for undertaking the manufacture of sugar from sugarbeet. This problem would need to be resolved.

(Para 7.52)

(132) An activity which has great scope for expansion and for providing employment to large numbers in the rural areas is the exploitation of our forest resources. We would endorse the suggestion of the National Commission on Agriculture that in order to meet the country's requirements of timber and pulpwood, a total area of 7.26 lakh hectares could be clear-felled and planted between 1974 and 1980 in the inaccessible hardwood forests and the mixed forests of valuable and low quality stands, and that in order to develop this area, the construction of forest roads would have to be taken up over a length of 7,260 kms. This would not only help in the proper maintenance of the country's forest wealth and the exploitation of its resources, but would also provide much needed employment in the primary, secondary and tertiary sectors.

(Paras 7.53 to 7.55)

(133) A large sized programme of road construction has a great employment potential not only in the construction phase but also in the maintenance phase. We feel that a larger programme of construction of 'rural roads' than one lakh kilometres as suggested by our Working Group would be necessary during the Fifth Plan as an integral part of the entire road programme to be taken up in the country.

(Paras 7.56 to 7.59)

(134) A programme for land colonisation over compact areas of 1,500 to 2,000 acres has been suggested by Shri V. V. Giri, our President. Steps to collect data from the States in this connection have been initiated by the Ministry of Agriculture. We suggest that once the necessary information becomes available, the various aspects of this programme should be examined as early as possible with a view to considering its implementation on an experimental basis.

(Para 7.60)

Industry

(135) It may reasonably be inferred that the industrial sector as a whole provided additional employment of the order of 4 million only during the two decades from 1951 to 1970, comprising two million in the factory sector and two million in small establishments outside the factory sector. The growth of the factory sector has, however, indirectly generated substantial employment in the primary and tertiary sectors.

(Para 8.10)

(136) Larger employment opportunities in the industrial sector could be generated in the short-term by accelerating the rate of industrial growth through increased production from the existing unused capacities as well as through fresh production from new investments. In the long-term the employment potential could be increased by reshaping the pattern and structure of industrial development. A reorientation of the industrial development programmes would call for an accelerated development of the less capital-intensive small scale industries as far as it is technologically feasible.

(Paras 8.12 and 8.13)

(137) Further orientation towards employment could be given by developing selected industries for which the necessary expertise, resources, etc., are indigenously available.

(Para 8.14)

(138) Larger employment opportunities could also be generated by adopting the types of technologies suitable for our labour-abundant economy. Care should be taken to see that the modern type of technology is not imported without reference to Indian conditions. In the selection of technology or in the modernisation of industry, the use of highly sophisticated or automated machinery should be discouraged.

(Para 8.15)

(139) (i) The dispersal of industries away from the metropolitan areas or other places of concentration is important from the point of view of the removal of regional imbalances and the wider diffusion of employment opportunities. It is necessary that suitable measures be taken to build up infrastructural facilities needed for industrial growth in less developed areas and to ensure that wherever possible industrial units are set up at locations away from the highly developed areas.

(ii)* The location of large industrial units in a backward area may not by itself generate significant employment unless a systematic attempt is made side by side to promote the setting up of a large number of ancillary units around a big industrial unit. We feel that the development of ancillary units should be regarded as an important instrument for the creation of new employment opportunities. It should be made obligatory for the bigger units both in the public and the private sectors to promote the development of ancillary industries by farming out the production of components, parts, sub-assemblies, etc. to small scale units.

(Para 8.16)

(140)† The continued functioning at the existing levels of traditional, village and small industries is of critical importance from the point of view of preventing the accentuation of the present unemployment situation. Steps will have to be taken to make these industries economically viable over a reasonable period of time by upgrading their technology, improving their marketability through the diversification of their products and improvement of designs, and giving them necessary institutional support.

(Para 8.17)

(141) It would be necessary to take suitable measures to solve the technological, financial and managerial problems of sick and closed units and of some small scale units which are in need of modernisation in order to maintain the health of these industries as well as their existing levels of employment.

(Para 8.18)

(142) To facilitate the process of absorption of those employed under short-term employment schemes as well as of some of the unemployed, into more permanent employment in the growing industrial sector and also in the tertiary sector, it would be necessary to impart training in crafts and services to some of these persons and to upgrade the skills of others in suitable cases.

(Para 8.19)

(143) Better utilisation of installed capacity would help accelerate the rate of industrial production with beneficial effects on employment and concomitant multiplier effects on other sectors of the economy.

(Para 8.21)

(144) There is an imperative need to keep careful watch in regard to the overall supply/demand position of critical raw materials like

*See also item (163) below.

†See also item (178) below.

steel, non-ferrous metals, etc., over the next few years, to take timely and vigorous steps to augment the indigenous production of these materials by establishing additional capacity to the extent necessary, and to ensure that realistic import programmes are drawn up well in time to maintain their satisfactory availability in accordance with the rising level of industrial production. There is also a great need for taking suitable steps to prevent the mis-utilisation or diversion of such materials.

(Para 8.25)

(145) In the short-term, every effort will need to be made for better utilisation of the existing power capacity through proper maintenance, reduction in transmission losses and strengthening of the transmission system so as to facilitate the transfer of energy from surplus to deficit regions. A crash programme on these lines will need to be drawn up and implemented. In the long-term, power capacity should be substantially augmented by suitable stages somewhat ahead of the growing demand and adequate arrangements made for an integrated operation of the power system by establishing regional load despatch stations.

(Para 8.26)

(146) The current deficiencies in the supply of railway wagons would need to be critically examined and remedial measures taken urgently. From the long-term point of view, transport planning would have to be more closely dovetailed and co-ordinated with the location of industrial projects and their transport needs.

(Para 8.27)

(147) It seems desirable that comprehensive studies of industries affected by demand constraints should be undertaken in order to identify the factors responsible for the current situation, to examine the possibilities of diversification and to work out integrated industry-wise programmes to remove the existing malaise.

(Para 8.28)

(148) An improvement in industrial relations would also contribute to better utilisation of installed capacity. One of the factors affecting industrial relations in the past has been the erosion of real wages through a steep rise in prices. It is, therefore, of vital importance to stabilise prices or at least to slow down their high rate of increase. Another step in this direction may be to link the wages with the price level and with productivity.

The development of better human relations at all levels in industry would also be a contributing factor in the better utilisation of capacity and in increased production. No efforts should, therefore, be spared to bring about conditions conducive to more harmonious industrial relations. It is desirable that suitable working arrangements be devised in time to avoid situations leading to lock-outs, etc., as far as possible, and all efforts made to settle industrial disputes in an amicable and expeditious manner.

(Para 8.29)

(149) For fuller utilisation of installed capacity, Government decided in January, 1972 to give a blanket permission to 54 (subsequently raised to 65) critical industries to expand and diversify their production upto 100 per cent above their licensed capacity. We would suggest that the question of allocating adequate raw materials to, and of relaxing the existing constraints, if any, on the installation of necessary balancing equipment in respect of, the units in such industries should be considered. We would further suggest that the question of extending this relaxation to other industries also should be considered.

(Para 8.31)

(150) In order to achieve higher production and employment with the same capital outlay, industries in general should be encouraged to take to two or three shift working.

(Para 8.32)

(151) We feel that in a capital-short economy, once industrial capacity has been created, whether authorised or unauthorised, it should be fully utilised to maximise production and employment. While offences against the law should be suitably dealt with, the nation should not deprive itself of the benefits of investments already made.

(Para 8.33)

(152) We are of the view that advance preparatory action and planning with detailed cost estimates and time schedules and material procurement for construction should be undertaken urgently for new projects likely to be included in the Fifth Plan. Further, it will also be necessary to have adequate arrangements to monitor the progress in the implementation of projects and to take timely corrective action in advance of difficulties likely to arise.

(Para 8.37)

(153) The Industrial licensing policy and the role to be assigned to the public sector for a particular period need to be announced well in advance and these need to remain stable over the period.

(Para 8.39)

(154) In order to provide incentive for investment in industries for the people, particularly the small investors, the introduction of a suitable scheme of tax concession to persons investing in the equity capital of new industries upto a certain specified limit should be considered. There is need for a fresh examination of the handicaps from which industrial securities suffer, with a view to their relaxation or removal.

(Para 8.40)

(155) More positive steps should, in our view, be taken to assist the new and medium entrepreneurs in a meaningful manner so that they may be enabled to implement the new industrial licences and bring new industrial capacity in use. The public financial institutions should strengthen their capabilities for providing assistance to these entrepreneurs in various forms, for example, by preparing feasibility reports, etc.

(Para 8.42)

(156) A strategy for utilising the substantial financial and managerial resources existing in the larger industrial houses for a faster industrial growth in a manner calculated to subservise the overall national interest also needs to be evolved.

(Para 8.43)

(157) There is a need for extending to fresh investors of small and medium levels further support by nationalised banks and other financial institutions. For this purpose these institutions should, in our view, give preference to such entrepreneurs by earmarking a suitable proportion of their total advances as also by allowing them better terms and conditions for these advances, with due regard to the priorities that may be decided by the government. There should also be a suitable scheme of differential rates of interest on advances to such entrepreneurs in accordance with these priorities.

(Para 8.46)

(158) We are of the view that a detailed examination of the various regulations and controls which affect industrial growth should be undertaken as early as possible and that a new approach is warranted in the matter of administration of various regulations and

controls pertaining to industrial development. Broadly speaking, the objective should be to retain physical control only in critical areas involving deployment of large and scarce resources and to reduce substantially the time-lags in securing clearances to a project from numerous agencies. We feel that a detailed examination of these aspects should be undertaken so as to evolve appropriate policies and procedures well in advance of the commencement of the Fifth Plan.

(Paras 8.47 to 8.49)

(159) We recommend that industrial programmes in the large scale sector should be confined by and large to those items in which there are compulsions of technology and scale, which have high employment linkage effects or where there is immediate need to augment the supply of mass consumption goods. The public sector also should participate in the production of critical and mass consumption items. There is also need for a co-ordinated programme which closely integrates the small scale units with the large scale industries in terms of backward and forward linkages.

(Para 8.50)

(160) In order that small scale units may gear their production to meet the current and future demands for the items reserved for this sector at competitive prices, it is imperative that adequate support measures are taken to ensure that the policy of reservation encourages the existing units to expand their production and induces new units to come up in these lines of production.

(Para 8.52)

(161) We would like to emphasise the need to give particular attention to the development of agro-industries in the future strategy for the promotion of small scale industries.

(Para 8.53)

(162) There is an urgent need to step up substantially the coverage of the Rural Industries Projects Programme. To ensure their success such projects should be preferably developed around growth centres. They should also take up the production of non-traditional items for domestic consumption and export.

(Para 8.55)

(163) In order to assist in the establishment of ancillary units, it is desirable that all new industrial undertakings and the existing units which apply for substantial expansion should be compulsorily asked to farm out to

small enterprises such of the components, spares, sub-assemblies, etc., as are capable of being manufactured in the small scale sector. Even in the matter of certain processing and finishing jobs, the large scale units need not be allowed to establish such facilities within their premises. The existing as well as new large scale enterprises should consciously foster the development of ancillary units by providing them technological guidance, common service facilities, testing facilities, etc., and also by encouraging qualified and experienced persons in their organisations to set up such units. The supply of raw materials to ancillary units should be ensured and they should be accorded necessary facilities and assistance in securing such materials including additional allocations by large scale units from their supplies.

(Para 8.58)

(164) Certain fiscal measures like sales tax and excise duties fall cumulatively on both the large scale and small scale units. Some scheme should be evolved to avoid the cumulative incidence of such fiscal measures.

(Para 8.58)

(165) There is need for a legal framework to govern the contractual arrangements between large units and ancillary units. The possibility of legislation for governing sub-contracting should, in our view, be examined by government.

(Para 8.59)

(160) For promoting small scale units around large industrial complexes it would be desirable to set up sub-contracting exchanges in different parts of the country on the pattern of the exchanges already functioning in Madras and Bombay.

(Para 8.60)

(167) To cut down delays in the grant of loans and advances to small scale units, there is need for greater co-ordination between the state financial corporations and the nationalised commercial banks. These agencies should also earmark additional funds for assistance to meet the higher requirements of this sector in the coming years.

(Para 8.61)

(168) In the matter of allocation of scarce raw materials to small scale units, we fully endorse the recommendations of the Balachandran Committee which should, in our view, be implemented without delay.

(Para 8.62)

(169) The possibility of setting up trade centres and retail outlets at important places by the organisations of small entrepreneurs, state small industries corporations, etc., to assist and promote the marketing of the products of the small scale units, needs to be carefully considered. Further, cooperative marketing agencies formed by small scale units themselves could also be encouraged.

(Para 8.64)

(170) We understand that a committee set up by the Ministry of Industrial Development in January, 1972 has made recommendations for enacting suitable legislation for small scale industries on matters such as restricted partnership, development of ancillary industries, reservation of items, etc. We recommend that the suggestions made by this committee should be given consideration and necessary legislation in respect of these matters promoted at an early date.

(Para 8.65)

(171) The consultancy services for the small scale sector need to be substantially expanded and strengthened to fulfill its growing needs. We consider it desirable that project profiles should be made available at a nominal cost. It would also be essential to strengthen adequately the small industries services institutes (SISI) with qualified and experienced staff competent to provide detailed consultancy services.

(Paras 8.67 and 8.68)

(172) We feel that the Appropriate Technology Cell already set up in the Ministry of Industrial Development should be strengthened and better equipped to discharge its responsibilities and functions. It should also have the responsibility of sponsoring research schemes in national laboratories and of generally stimulating research and development work in this important field. Further, it may be empowered to operate pilot projects and conduct field demonstrations.

(Para 8.71)

(173) Encouragement has also to be given in general to the development of indigenous technology. Adequate support should be given to the activities of the National Research Development Corporation, the Council of Scientific and Industrial Research and other similar organisations.

(Paras 8.72 and 8.73)

(174) The existing socio-economic milieu is not altogether favourable for the growth of a spirit of initiative and enterprise among young people. The long-term problem is one

of creating conditions for the growth of self-employment through an orientation of our educational programmes, particularly of the programmes of vocational education, and through changes in the social values and norms.

(Para 8.75)

(175) We reiterate the suggestions made in our Interim Report that in the matter of providing credit under the special credit schemes, the banks should take a broad and liberal view of the categories of persons to be eligible for assistance and should extend such credit to the entire range of self-employment field and that the terms of the loans should be made softer taking into consideration the requirements and limitations of such borrowers.

(Para 8.76)

(176) With a view to removing the stagnation from which the economies of the backward and rural areas suffer and providing opportunities for gainful employment to the people of these areas nearer their homes, it will be necessary to spread the establishment of industrial units in semi-urban and rural areas as also in the backward regions of states which are still undeveloped. In this connection we feel that in a case where an industrial licence is issued for setting up a unit in such areas, the entrepreneur should not normally be permitted to change its location to a large city or a more developed area.

(Para 8.80)

(177) (i) In order to create an impact on the development of the backward areas, the industries to be selected for being set up should be such as have an organic relationship with the economy and resources of the area and the necessary forward and backward linkages with other economic activities therein.

(ii) Institutions for providing consultancy and other services similar to those provided by the Kerala Industrial Technical Consultancy Organisation (KITCO) and the State Industrial and Investment Corporation of Maharashtra (SIICOM) should, in our view, be created for other backward areas also. We recommend, therefore, that the necessary institutional framework should be established for the provision of consultancy and other services to the small scale sector in the backward areas of all the states.

(Para 8.81)

(178) In view of the large scale employment being provided by the traditional village

and cottage industries, we consider that institutional credit should be made available to them on liberal terms and on a more extensive scale taking into account their requirements. We feel that the concerned agencies should also take up on a basis of urgency programmes for the improvement of skills, designs and production techniques in these industries. In the meantime, measures of fiscal support in their present form should be continued and extended to the industries not yet covered.

(Paras 8.83 and 8.84)

(179) In view of the large number of persons dependent on the handloom industry who are exposed to under-employment or may be thrown out of employment due to the difficulties in obtaining cotton and art silk yarn, we consider that remedial measures should be taken as a matter of urgency for ensuring a better supply of yarn to handloom weavers at reasonable prices.

(Para 8.85)

(180) It is felt that the basic concept of decentralisation of industries to the village and household levels and the creation of employment thereby should be extended to other industrial activities also instead of being confined to the traditional industries only. There is need, therefore, for an investigation as to how far some of the activities of the modern industrial sector could be decentralised to the village and household levels. A few pilot projects should be taken up thereafter.

(Para 8.86)

(181) (i) In our Interim Report we had suggested the setting up of an agency in the form of a separate corporation charged with the duty of overseeing the economic health of industries where closures have taken place or are apprehended, with a view to remedial and timely action being taken. We would like to reiterate our earlier suggestion for the setting up of such a corporation.

(ii) In the case of industries like textiles and sugar which employ a large number of workers, suitable steps for modernising the plant and machinery, where necessary, should be taken as a matter of urgency and other necessary steps also taken so that the closures resulting from the inefficient working of the units or due to old and worn out equipment may be avoided.

(Para 8.87)

Education and Training

(182) The total number of educated job-seekers registered with the employment exchanges as on 31st December, 1972 was 32.78 lakhs, which constituted nearly 48 per cent of the total number of registered job-seekers. This number was increasing at the average annual rate of 20.1 per cent from December, 1966 to December, 1971 and has registered a further increase of 42.8 per cent from the end of 1971 to the end of 1972. While the number of matriculate job-seekers has nearly tripled between 1966 and 1972, the number of under-graduate job-seekers has quadrupled and that of graduates has become six-fold during the same period.

(Para 9.1)

(183) With the target of 5.5 per cent economic growth envisaged in the Fifth Plan, the employment opportunities likely to be thrown up by the organised sector would fall short of the increasing supply of educated manpower. It would, therefore, be necessary to promote the rapid growth of unorganised sector of the economy so as to create more job opportunities for the educated unemployed as also to foster self-employment among them. For this, the quality and content of the educational courses also need to be oriented so that the products of educational institutions are more employable and can fulfil the requirements of both the organised and unorganised sectors.

(Para 9.7)

(184) A comprehensive and phased programme of additional enrolment may be formulated for the primary and middle stages of education with the objective of achieving by the end of the Fifth Plan 100 per cent enrolment of the children of the age-group 6-11 and 75 per cent of those of the age-group 11-14. Besides helping in the implementation of the Constitutional directive, this programme would generate direct employment opportunities for nearly 1.50 lakh teachers, 1200 assistant inspectors of the primary schools and ministerial staff every year, in addition to the requirements for normal replacement.

(Para 9.12)

(185) One major difficulty in the way of effective implementation of the programme of universal elementary education is the problem of drop-outs. To tackle this problem, not only the quality of primary education needs to be improved but other remedial measures need to be adopted to provide relief

and assistance to the children of poorer sections. In this connection improvement programmes such as the provision of mid-day meals, free supply of text-books to the needy children and improvement in the quality of teachers have *inter alia* been suggested by the Education Commission. In addition, the condition of school buildings would need much improvement. A phased programme of construction of new school buildings should, wherever necessary, be undertaken. Another measure which can help in reducing the number of drop-outs is the adjustment of school terms and vacation periods and of the working hours of schools, specially in the rural areas.

(Para 9.18)

(186) The system of single-teacher schools should, in our opinion, be reviewed and the existing single-teacher schools converted wherever possible into multi-teacher schools. Besides improving the quality of education in such schools, this will offer more employment opportunities for teachers.

(Para 9.19)

(187) We are of the view that a phased programme of adult literacy should be undertaken so that within a period of 10 to 15 years illiteracy among adults could be practically removed from the country. To start with, it is suggested that a suitably phased programme be prepared for the Fifth Plan so that, at the annual rate of 10 million adults of the age group 15-44, at least 50 million such persons are covered. For making this programme a success, a comprehensive follow-up programme for the supply of literature and the establishment and maintenance of libraries for the neo-literates would also have to be initiated. During the Fifth Plan, the total expenditure on this programme is estimated to be of the order of Rs. 100 crores.

(Para 9.22)

(188) A few short-term measures that can help in easing the problem of the educated unemployed have been mentioned. These are:—

- (i) Government should consider the need for some form of legislation which would ensure that every industry employs a number of engineers and technicians determined on the basis of its scale of manufacturing capacity, technical processes employed, total number of workers, etc.

- (ii) We feel that instructions requiring the appointment of qualified engineers by the contractors undertaking works for Government departments and also prescribing the number of such engineers, should exist in all the states. These instructions would need to be enforced effectively. It would be still better if qualified engineers are encouraged to take up Government works contracts either individually or on a cooperative basis.
- (iii) Planning units for preparing the engineering designs and project reports may be created in appropriate departments, where these are not in existence.
- (iv) Research and development activities in the country should be expanded substantially.
- (v) There is a need to tap the unorganised sector of the economy, where great potential now exists for absorbing educated personnel. Suitable training and orientation programmes may be drawn up in each area for the local talent among the educated unemployed. With the introduction of new techniques in agriculture, the scope for opening new labour-intensive industries, repair and maintenance workshops, shops, and retail centres, etc. has widened. Such entrepreneurship should be encouraged by the Government through the provision of financial and other facilities.
- (vi) The state governments should take the initiative in fostering and encouraging self-employment among engineers, technicians and the educated unemployed so that they may take advantage of the scheme of the Ministry of Industrial Development for providing financial assistance for the opening of small industries. It is suggested that the original objective of this scheme to provide encouragement and financial assistance to the educated unemployed may be kept in view and non-technical educated persons also may be encouraged and assisted to set up as self-employed persons in suitable industries. (Para 9.24)

(189) It is suggested that the programmes of expansion of elementary education and of adult literacy and the other short-term measures should be so formulated that their benefits are equitably distributed among different regions, more emphasis being laid on rural and backward areas. (Para 9.25)

(190) In order to improve the employability of its products, the present educational system needs to be revamped so as to make education job-oriented with a technical bias right from its elementary stage. (Para 9.26)

(191) It is desirable to reorient the methodology of teaching in elementary classes so as to inculcate in the children from the very beginning those basic attitudes and personality traits which are the pre-requisites for employment preparation, employment adaptation and employment creation. A comprehensive programme of work-experience as recommended by the Education Commission will help in developing these basic attitudes and traits. (Para 9.27)

(192) While general education with a programme of work experience may be allowed upto the tenth class, education in the higher classes should be made vocational in character by introducing diversified job-oriented courses. We are strongly of the view that a stage has been reached when the pace of vocationalisation of secondary education has to be speeded up with a view to attaining the target set by the Education Commission of diverting 50 per cent of students at the higher secondary stage, i.e., classes XI and XII, to vocational education. (Para 9.28)

(193) The courses of vocational education should be such that at the end of the course, the product should in general be ready to fulfil the requirements of industrial and agricultural occupations. All programmes of vocationalisation should, however, be linked as far as possible with the local manpower needs and should be operated in close collaboration with the machinery for vocational guidance, the training centres in industry and the employers. In determining the requirements of the various categories of skilled persons, local skill surveys and studies of the employment situation should be carried out periodically in close collaboration with the employing agencies. (Para. 9.29)

(194) We strongly recommend that steps should be taken to bring about a transformation in the existing social milieu, norms and standards so that more young people are encouraged to go in for training for jobs and occupations involving manual work. Besides other measures, we suggest that scholarships and other concessions should be provided in schools to students taking up vocational education, and better emoluments and working conditions prescribed for jobs and occupations involving manual work. We are of the opinion that a lead in this matter should be taken by the public sector. (Para. 9.30)

(195) The rate of increase in enrolment at the stage of higher education has been substantially higher than at the primary and secondary stages where such rates of increase should normally be higher. A number of measures can be adopted to moderate the pace of expansion of higher education by providing alternative avenues for a number of students. Firstly, an extensive programme of vocationalisation should be adopted at the higher secondary stage. Secondly, it should be ensured that adequate standards are maintained in institutions at the secondary stage and that the public examination at the end of the higher secondary stage is of a reasonable and uniform standard. Thirdly, higher education also should be diversified so as to provide for vocational and professional courses both at the under-graduate and post-graduate levels.

While these measures should to some extent be helpful, a long-term remedy to the problem would lie in accelerating the economic development of the country and the all-round growth of the economy in general with the conscious and deliberate objective of employment generation. (Para. 9.31)

(196) The Committee feels that the existing rules regarding recruitment and the practices followed in the selection processes would need to be modified. Only the minimum qualifications necessary for the proper performance of the duties of a post should be prescribed, and university degrees should not be used as a filtering device in case of jobs where the qualifications prescribed are lower. In order that persons with necessary minimum qualifications may be encouraged to apply and be able to compete on fair terms without undue preference being given to those with higher qualifications, the desirability of reducing the age-limit prescribed for appointment to various posts, with suitable adjustments for the transitional period, would need to be

considered by the Government and other employing agencies. The selection procedures would need to be related more specifically to the job requirements and duties expected to be performed. Besides, arrangements for entry into educational institutions at multiple points should be provided to enable student-workers with lower qualifications to improve their qualifications and professional competence. (Para. 9.32)

(197) (i) We would suggest that at every stage of technical education beginning from craft training to post-graduate technical education, programmes of practical training linked as far as possible to job requirements may be introduced as a part of the curriculum.

(ii) It is necessary to ensure that satisfactory arrangements are made with the active co-operation of the managements of industrial unit for the trainees of sandwich courses acquiring practical experience in the industry. Similar sandwich courses may be introduced with the assistance and co-operation of other industrial units in a larger number of technical institutions. The programme of training should be drawn up according to the requirements of the various sectors of the economy and it should be reviewed periodically by standing boards of technical education whose membership should include some higher level technical workers of industry.

(iii) Technical institutions should be encouraged to provide short-term training courses for upgrading the skills of the existing stock of technicians and teaching them allied trades. (Para. 9.33)

(198) Some measures/studies that should be undertaken to assist in the better implementation of the programme suggested have been indicated. (Para. 9.34)

(199) It is desirable to draw up suitable training programmes of short duration with a view to upgrading the skills of the educated persons and improving their capability for getting employment or being self-employed. The proprietors of small undertakings as well as prospective entrepreneurs could be given managerial training. Some training programmes of pre-vocational type would also be necessary for a larger number of persons with elementary education or drop-outs, so as to impart to them elementary skills for improving their employability and making them more useful for their parental occupations or other trades. After completing such training the trainees should be assisted to start their own

enterprises in traditional and labour-intensive jobs. The ultimate objective should be to incorporate such training in the system of elementary education. (Paras 9.35 & 9.36)

(200) Short-term training schemes being run by the DGE&T for technical personnel may be reviewed and rationalised in view of the changing needs of the occupational pattern. For enabling some educated and qualified persons to avail of specific job opportunities suitable practical training in specific jobs in the organised sector could be provided. It is also necessary to arrange for the training of a larger number of such persons in a variety of skills. (Para. 9.37)

(201) Training facilities would need to be planned in accordance with the manpower requirements in specific categories of skills. These should generally be planned on the basis of local field surveys undertaken in respect of the manpower requirements in existing and emerging occupations. A suitable machinery must be established at the district level for conducting such surveys and for linking education and training programmes with the findings of these surveys. For overall coordination at the state level, a board or council may be set up with representatives from government department, industry, workers' unions, elected bodies, etc. (Para. 9.38)

(202) It is suggested that large sized industries having their own training programmes should choose trainees from those selected under the Stipendiary and National Apprenticeship Schemes and share a part of the expenditure on stipends. Some of the difficulties in the working of these schemes and a few corrective measures for their removal have been mentioned. (Para. 9.39)

(203) To make the training programmes effective, industry should be encouraged and persuaded to participate actively in the planning of such programmes and their implementation. It should, as far as possible, be made obligatory on their part to give a measure of preference to such trainees in regard to job opportunities in their own establishments. (Para. 9.40)

Machinery for continuous appraisal

(204) While the work relating to manpower planning and employment is spread over a number of agencies at the Centre, including in particular the Directorate General of Employment and Training, the Employment and Labour Division of the Planning Commission,

the Employment and Manpower Cell in the Cabinet Secretariat, the Directorate of Manpower and the Ministry of Education, there is no central agency at present which is responsible for bringing together and collating such data and making a comprehensive study of the various aspects of the problems of manpower and employment. We feel that there is a need for establishing such a central agency so as to ensure co-ordination, undertake timely compilation and collation of all relevant information on the manpower and employment situation and make comprehensive analyses and studies of such information for the purpose of planning.

(Paras. 10.4 and 10.12)

(205) The functions of some of the existing agencies relate exclusively to manpower planning and employment generation which are separable from the main sphere of work and functions of their parent organisations. The functions of such organisations can easily be transferred to a suitable apex organisation which might be entrusted with overall responsibility in respect of manpower planning and employment. (Para. 10.14)

(206) While the responsibility for the collection of data on various aspects of education may continue to vest in the Ministry of Education, it is important that suitable arrangements should be made for ensuring the regular and timely flow of such data to the proposed apex organisation responsible for employment and manpower planning with a view of facilitating a comprehensive study of the available data for effective co-ordination of the programmes of the Ministry of Education and other agencies concerned with specialised education, and for the formulation of suitable policies for ensuring supply of the requisite personnel. (Para. 10.15)

(207) While the monitoring and assessment of sectoral programmes in relation to the employment aspect should primarily be the responsibility of the executive agencies implementing such programmes, the apex organisation should be supplied with the relevant data and the results of assessment by the implementing agency so as to facilitate the assessment of the overall employment situation as well as the effecting of such co-ordination and such adjustments of policies and programmes as may be necessary.

(Para. 10.16)

(208) It is necessary that the question of suitably strengthening the data collecting agencies and making adjustments in their procedures should be kept under constant

review by the department entrusted with the subject of statistics in consultation with all the agencies collecting such data and the apex organisation which would be entrusted with employment and manpower planning.

(Para. 10.17)

(209) A sustained flow of relevant and timely information has to be ensured from the various agencies to the apex organisation entrusted with the responsibility for manpower planning.

(Para. 10.17)

(210) There is need for setting up a suitable organisation (a) to ensure overall co-ordination among the agencies generating data, (b) to analyse the available data and to suggest changes from time to time in the system of collection of data and (c) to formulate practical policies and programmes pertaining to the planning of manpower and employment from time to time in the light of developments in the economy.

(Para. 10.18)

(211) We feel that at the Centre as well as in the states, the agencies which deal directly and exclusively with the planning of manpower and employment should be merged to form a separate department of the Central Government and of the State Governments. In particular, at the national level, the Directorate General of Employment and Training, the Directorate of Manpower and the Employment and Manpower Cell in the Cabinet Secretariat should be merged to form a Department of Employment and Manpower Planning.

(Para. 10.19)

(212) The implementation of programmes of self-employment sponsored by the Government and other agencies as well as the situation regarding self-employment in the country from time to time should be continuously monitored by the appropriate agencies of the Government, and the Department of Employment and Manpower Planning at the Centre should exercise a co-ordinating role in the matter.

(Para. 10.21)

(213) We feel that it is necessary that there should be a separate organisation at the national level with sufficient autonomy and authority which should devote itself exclusively to a comprehensive assessment and review of the employment situation on a continuous basis and provide guidance and advice to the various ministries of the Government and other agencies in their policies and functions in relation to the employment situation. We feel that besides the Department of Employment and Manpower Planning at the Centre,

there should be a separate high power organisation with adequate authority. We, therefore, recommend that a National Commission on Employment and Manpower Planning should be established. The Commission should enjoy the requisite autonomy and be in a position to take up *suo motu* the consideration of any matter relating to its functions.

(Para. 10.25)

(214) The proposed Commission may be a compact body consisting of a small number of members some of whom including the Chairman, should be full-time members.

(Para. 10.28)

(215) The Commission should have, *inter alia*, the following functions:—

- (a) to conduct periodical reviews of the situation pertaining to manpower, employment and unemployment indicating, where necessary, particular areas demanding attention;
- (b) to make projections of the labour force and different categories of manpower on the basis of available data and information with an adequate degree of disaggregation;
- (c) to evaluate the situation regarding supply of and demand for manpower at different levels and the likely developments therein, both short-term and long-term, having regard to the changes in the general economic situation, production targets and other relevant factors;
- (g) to advise the appropriate ministries or departments on policy matters and to make suggestions to them for the better implementations of programmes in various sectors affecting employment generation.

(Para. 10.29)

(216) (i) The suggestions and recommendations made from time to time by the Commission should receive careful and prompt consideration by all ministries and agencies of the Central Government as well as by the State Governments and other organisations.

(ii) A Committee of secretaries of the Central Government under the chairmanship of the Cabinet Secretary should be entrusted with the responsibility of considering the major issues arising from the Commission's suggestion and recommendations and taking necessary decisions on administrative and policy matters for the guidance of the various ministries, departments and agencies of the Government.

(Para. 10.30)

(217) We would suggest that Parliament may consider the desirability of constituting a committee somewhat on the lines of its existing financial committees. The proposed Department of Employment and Manpower Planning as well as the National Commission should submit periodical reports to this committee on the employment situation in the country in general. Also, the Central Government should take steps to place before this committee the annual reports on the activities of the Department and the Commission.

(Para. 10.31)

(218) We consider that as a counterpart of the Department of Employment and Manpower Planning recommended by us at the Central level, there should be suitable organisations also at the state level. These organisations should have the same relationship with other state Government departments as the Department of Employment and Manpower Planning would have with its sister departments at the Centre. However, it does not seem to be necessary to have at the state level an organisation similar to the National Commission recommended by us for being set up at the Centre.

(Para. 10.33)

(219) The review and appraisal organisation in the departments and ministries dealing with various plan schemes and other measures concerned with employment generation should be strengthened so as to cover the aspect of employment generation in addition to the physical and financial aspects of the programmes. The arrangements in the departments for the formulation and review of Plan programmes should also be strengthened for undertaking the analysis and appraisal of employment generation in their respective fields. The strengthening of such arrangements in the executive and appraisal agencies at the state level would also be necessary.

(Para. 10.34)

(220) It appears necessary to strengthen and suitably equip some of the existing organisations dealing with the collection of data and the appraisal of the progress of various

programmes. In particular, the following suggestions are made :—

- (i) The Programme Evaluation Organisation of the Planning Commission should be geared to increase the coverage of its work. In particular, it should evaluate the development programmes as regards their effectiveness in respect of employment generation.
- (ii) With the increased emphasis on manpower planning and employment it would be necessary to strengthen at the state level the state bureaux of economics and statistics which are specialised organisations equipped to deal with the subject of statistics for all sectors of the economy. Their technical services could thus be more effectively utilised for developing employment statistics and manpower data.
- (iii) The statistical machinery charged with the collection of educational statistics, both at the Centre and in the states should be strengthening so that in addition to the collection of educational statistics for administrative purposes, it can also provide necessary data required for employment and manpower planning to the apex organisation at the Centre and to the state departments dealing with employment and manpower planning.

(Para. 10.35)

(221) The Department of Employment and Manpower Planning should be adequately equipped and provided with sufficient funds at its disposal to undertake studies directly in those states and union territories where a sufficiently well-equipped organisation for this purpose does not exist or cannot be established within a reasonable time. It should also be able to undertake such pilot studies and surveys in special fields as it may consider necessary, either directly or by assisting suitable research institutions or academic bodies.

(Para. 10.36)

11.2 Dr. Ashok Mitra has substantive reservations about certain aspects of this Report,

and has appended a note of dissent.

(Sd.)
(B. BHAGAVATI)
Chairman

(Sd.)
(K. BALACHANDRAN)
Member

(Sd.)
(JYOTIRMOY BOSU)
Member

(Sd.)
(GAUTAM MATHUR)**
Member

(Sd.)
(B. R. GUPTA)
Member

(Sd.)
(M. ANANDAM)
Member

(Sd.)
(V. L. GIDWANI)
Member

(Sd.)
(I. J. NAIDU)
Member

(Sd.)
(R. K. SINHA)
Member

(Sd.)
(ASHOK MITRA)***
Member

(Sd.)
(MAN MOHAN SINGH)
Member

(Sd.)
(J. S. TILAK)
Member

(Sd.)
(N. V. KRISHNAN)
Member

(Sd.)
(CHANDRAJIT YADAV)
Member

NEW DELHI
May 15, 1973.

(Sd.)
(N. S. PANDEY)
Member-Secretary

*Subject to a Note of Dissent.

**Subject to a Note of Supplimentation.

***Subject to a Note of Dissent.

NOTE OF DISSENT

By

JYOTIRMOY BOSU, M.P.

In my resolution on unemployment which was responsible for constitution of this Committee in 1969, I tried to make clear certain things connected with unemployment and its growth in the country during different plan periods. Almost the entire House of Lok Sabha was with me and the ground on which I had withdrawn the resolution from being put to vote was something different from what the terms of reference of this committee are. The terms of reference of this committee have been considerably watered down and in fact certain issues have been dropped. The government took about 13 months to constitute the committee and even after that the committee hardly got prompt and sufficient attention from the government in the matter of getting its many of the requirements met. I think the committee could have submitted its report earlier had the government shown keenness in helping the committee in its enormous task. In actual fact it was after a lot of pressure I had to exert on the government that the committee came into being.

Here I must thank Shri B. Bhagawati, the Chairman of the Committee who had made untiring efforts to further the cause of the committee, and other members, panel members, advisers, executives and staff for their continuous hard and sincere efforts without which the job would have been far more difficult for us to conclude.

The final draft has recorded a number of improvements. But in spite of that things remained with which I cannot agree. These are basic differences relating to our "approach to the problem". Hence this note of dissent.

I would like to make my basic position clear and the issue may be presented in the following manner:—

Full and productive employment for all able-bodied persons of employable age should be the objective of the country's employment policy. No doubt there is always a big difference between the objective and what is feasible. Now the question that arises is, whether the objective of full employment is realisable under our present socio-economic set up which is based predominantly on private ownership in the means of production, particularly, when more than 90% means of production are out-

side the scope of state planning. To my mind it is not possible. In an economy which is based on capitalist mode of production and where the productive activities are carried on with the sole objective of maximising profit, it cannot cater to the needs of the welfare of the society as a whole. The capitalists cannot thrive and their profits cannot be maximised without the existence of a reserve army of unemployed which was described by late Karl Marx as "the Industrial Reserve Army." This unemployed band are used as a weapon by capitalists to depress the earnings of the wage labourers employed by them. Because their anxiety will be always to remain in an "employer's market." In their drive for maximum profit the capitalists constantly resort to rationalisation, modernisation, automation, mechanisation, market manipulation and other labour-saving devices and thus the process of replacing of human labour by machines and other artificial methods, is a continuous one. In this process more wage earners lose their jobs and swell the rank of the unemployed. This is the universal law of capitalist development and like all other laws it is subject to variation according to circumstances. Even in a rich capitalist, highly industrialised country like America, they have failed to solve the problem of unemployment which ranges from 5 to 12% (I do not dispute it is not high) of the labour force. In India, which is a backward, poor and much exploited country, there cannot be an exception to this general law particularly when it has taken the capitalist path of development since independence. I shall be living in a "fools paradise" if I think that the problem of unemployment and under-employment could be solved, and full employment ensured in my country under the present socio-economic set up.

In our constitution "right to gainful work" has been enshrined, but in reality our unemployment has grown by leaps and bounds with the passing of time. This has grown at such an alarming rate that it is now sapping the very vitals of the country.

The realisation of the objective of full employment is possible only in a real socialist system where productive activity is thoroughly planned and carried on solely in the interests of the society as a whole. It has already been demonstrated in practice in various countries what socialism can achieve. Soviet Russia solved the problem of unemployment in the course of its very first Five Year Plan. In China, where the problem was no less acute than what it is in India, unemployment has been banished from the society. Similar is

the case with other backward countries which has taken the socialist path of development. Although I must admit here that there may be some sort of frictional unemployment in these countries, but the problem in the main has been solved.

We are quite conscious of the fact that the committee have had to formulate their recommendations under different circumstances altogether and not under a desirable or "ideal" system. One should not draw a pessimistic picture from what has been stated above. According to us, even under the existing socio-economic system it is possible to generate greater employment opportunities which could go a long way in arresting the deterioration in our unemployment position. To attain this objective it is necessary to radically change our whole approach to planning, investment, employment policy, etc. But with regret I must mention here that the committee's recommendations have not gone very far in that regard. I find much sense in what Dr. Ashok Mitra has said that the recommendations are confined to traditional sphere and line of thinking.

The schemes recommended by the committee are more or less already there, as for example; Crash Programme on Rural and Urban employment, expansion of irrigation facilities with particular emphasis on small irrigation schemes, land reclamation, rural electrification, rural roads, rural housing, rural water supply and similar other labour-intensive industries.

The committee of course in their sincere effort urged the government to provide adequate funds for implementation of labour-intensive schemes and these will undoubtedly receive all full support. But these project implementations alone will not achieve the desired objective of employment generation, unless radical changes are brought in the present institutional set up. There, unfortunately, the committee have not made positive and firm recommendations.

The basic cause of growing unemployment and under-employment in India, according to us, is the predominant existence of private ownership in the means of production. The problem got aggravated during the last 25 years because of wrong economic and fiscal policies pursued by the present government, which has a particular class character. These motive-oriented policies of the government are continuing to consolidate and strengthen more and more every day, the position of the big business houses and rural rich on the one hand

and causing shrinkage of employment and job opportunities on the other. The same fatal policies have led to the fall in the actual growth rate of our economy. Unfortunately the committee did not apply their mind to this aspect of the problem. In the absence of a firm and basic approach the recommendations of the committee are inclined to be little stereotyped in character.

I must point out the committee have not dealt with the phenomenal growth of foreign and Indian monopoly houses in terms of profits, assets, turn over and remittances in spite of the so called curbs imposed on them by the government through its "NEW" industrial licensing policy and formation of the Monopoly and Restrictive Trade Practices Commission. The Committee did not find it important enough to recommend imposition of any drastic curbs on the activities of the monopoly houses. Over and above, their recommendation on industry under Chapter VIII on regularisation of irregular increase in installed capacity, if implemented, will undoubtedly lead to the further strengthening of the position of the monopoly houses which will in its turn worsen the problem of urban unemployment. Similarly we in the committee did not consider it necessary in Chapter VII—"Agriculture" to recommend measures for curbing the growth of the rural rich who are equally creating difficulties in the way of providing productive employment to the rural surplus landless labour force.

One of the fundamental drawbacks of the planning in India is the absence of any provision for compulsory implementation of the schemes included in the plan. Even most modest targets set in the plan remained unfulfilled or unimplemented. The fate of the Crash Scheme for rural and urban developments should act as an eye-opener to all of us. Even the meagre fund earmarked for a particular project has been either kept unspent or is being diverted to some other low-priority unproductive projects. The fate of "the Crash scheme for rural employment", introduced in 70-71 with the object of providing employment to 1000 persons on an average per year in every district is a glaring example. This scheme was put into operation on the basis of 100% grant of the Central Government, and with an annual allocation of Rs. 50 crores. Thus each district was allotted on an average Rs. 12.5 lakhs per annum. The study of the expenditure pattern reveals the following picture:—

During 1971-72, 81 per cent of the total expenditure incurred in 13 states and 5 union

territories relates to one item alone namely "construction of roads." The expenditure incurred on minor irrigation is only to the tune of 8.89 per cent. And on land reclamation it is as low as 1.6 per cent (source—36th report of the Estimates Committee—, fifth Lok Sabha 72-73 page 65). Many other crash schemes have met with the same fate.

Under the circumstances there is no guarantee that the Committee's recommendations on the employment generating schemes, even if accepted by the government, will be given effect to. The government, as seen by its past and present performances, will discharge its duties by setting a number of targets without sincerely meaning their implementation.

It should be remembered that the bulk of the productive activities are carried out in India as in many other capitalist countries, by private individuals and joint stock enterprises. The productive enterprises owned by the government account for not more than 6% of the net domestic product. (Source: Pocket book of economic information, 1971, published by the Ministry of Finance, Government of India). The accepted recommendations of the committee will not be implemented in letter and in spirit unless there is some form of compulsion including provision for penal action. It is equally and urgently necessary, along with that, to raise the public sector to the 'commanding heights' of our economy in the true sense of the term meaning, the vital sectors of our economic activities, including business operations of the foreign banks and other companies where there is foreign equity participation, have to be brought under the public sector.

The committee have recommended additional and new fiscal incentives to all entrepreneurs with a view to encourage them to set up industries in backward regions. Before making these recommendations it was necessary to have an assessment of past overall impact of the incentives that are already available. From the reports that we have, we do not find any break-through in this direction unfortunately.

During the last 3 years, out of a total number of about 247 industrial licences issued to 20 larger business houses and foreign companies, not more than 25 relate to setting up of industries in backward regions (Parliament replies).

The lending policy of the term financing institutions and nationalised banks is more or

less meant to favour the metropolitan cities and large business houses.

From a recent study by the credit planning cell of the Reserve Bank of India on the state-wise and region-wise performance in deposit mobilisation and sector-wise credit disbursement and also expansion of bank branches by the public sector commercial banks between end-June, 69 and end-June, 72, it could be seen that the public sector banks have not generally so far operated in the manner they should have had in conforming with the basic declared objective of nationalisation. Even now, the priority sectors remain neglected. Pace of expansion of bank branches in the rural and unbanked areas for mopping up surplus resources and for agricultural credit facilities to the rural needy has slowed down in the last 2 years.

It is not enough to recognise in theory, the necessity for tackling the problem of unemployment and under-employment on a war-footing. It is also necessary to translate this theory into practice and with that objective in view the committee could have recommended measures for compulsory implementation of the plan schemes with provisions for punishment in case of failure and non-implementation.

But unfortunately no such recommendation has been made.

In this connection I fully endorse the suggestion put forward by Dr. Ashok Mitra for creation of a "Central Employment Fund" with contributions from industrial employers in the private sector, rural rich, public sector undertakings, nationalised banks, financial institutions and Central and State budgets.

On Chapter VII "agriculture", there is not much of disagreement over the recommendations. But it must be mentioned that the committee's recommendations have amounted to 'putting the cart before the horse'. It is necessary to take drastic and honest measures for break through in agriculture, which is now stagnating. In other words, it is absolutely necessary to improve agriculture on a sustained basis by releasing the rural productive forces. Adequate employment opportunities could easily be generated in the rural areas through this measure alone and not through mechanical implementation of a number of schemes.

In our opinion the country's strategy for breaking the stagnation in agriculture should

be the adoption of a programme of genuine radical land reforms in the interests of the peasantry and this should get first priority.

The land policy of the government has not been directed to bring effective and radical land reforms in the interests of the peasantry. It was mainly directed at some reforms in the existing land relations by transforming the feudal landlords into capitalist landlords. In this way the government expected that agricultural production would substantially improve and food problem thus solved. In this process a new class of rural rich has come into existence and this class now dominates the rural economy. This new rural rich has been mainly able to derive major benefits out of the rural development schemes of the government. As a result, social tension in the rural areas has increased and the economic position of the agricultural labourers and small farmers worsened.

Even the limited programme of land reform (like consolidation of holdings, tenancy reforms, ceiling on land holdings and distribution of surplus land among the agricultural labourers and poor peasants) included in the First Plan remains unimplemented to date.

The Planning Commission's task force on agrarian relations has come to the conclusion: "In the context of the socio-economic conditions prevailing in the rural areas of the country, no tangible progress can be expected in the field of land reforms in the absence of requisite political will. The sad truth is that this crucial factor has been wanting."

The task force's report goes on to say that in no sphere of public capacity since independence "has the hiatus between precept and practice, between policy pronouncements and actual execution has been as great as in the domain of land reforms."

Farming cooperative movement in India has not made any headway and most of the existing farming cooperative societies are controlled by the rural vested interests. It is bound to be so. Correct solution of the land problem is the main guarantee for a successful cooperative movement. The cooperative movement in the peoples' Republic of China was successful simply because the government of that country drew up and implemented a scheme of radical land reforms in the interests of the peasantry.

Rapid growth of farming cooperative societies (which is possible only in the back-ground of a successful implementation of the policy

of radical land reforms), is the only solution to the problem of growing fragmentation of holdings. Unfortunately the committee did not lay any emphasis on this important issue.

The need for a bigger Fifth Plan

One cannot deny the fact that one of the main causes of growing unemployment/under-employment in the country is the low rate of growth in the country's national income, which in its turn should be attributed mainly to the low rate of capital formation. Capital formation is not only low, the rate of growth has fallen during the past few years.

Why this low rate of capital formation? Our country, though under-developed, has no shortage of financial and natural resources. By resources we mean not simply visible financial resources. By his term we mean actual and potential and hidden 'economic surplus' which is lying with monopolists, big traders, speculators and the rural rich. The committee did not deal with the question of resources.

We feel, it is possible to invest 20-25% of the country's national income without imposing any curb on the current consumption of the overwhelming majority of the population. Of course, the conspicuous consumption by the very small richer section has to be drastically curbed.

Without a bigger Fifth Plan, it will not be possible to create adequate job opportunities. According to us, it is certainly possible (and desirable too) to raise the Fifth Plan outlay by at least 50% without imposition of any fresh burdens on the common people. It is even possible to lessen the burden on the common man and at the same time step up Fifth Plan outlay and investment.

For doing this it will be necessary to launch a ruthless attack on the urban and rural vested interests. But we do not think, the present government with its particular class character has got the political courage and plans to do that.

Other Topics of Interest

"Dimension of the problem."

The final draft is somewhat improvement upon the first one in that an attempt has been made to present an overall picture of unemployment and under-employment in the country.

We have no disagreement with the view that the "the estimate of unemployment should

include the persons who are wholly unemployed as well as those who have work for less than 14 hours a week. On this basis, according to the final draft, the likely number of unemployed persons may reasonably be taken as 18.6 million including 8.9 million who are unemployed and 9.7 million who work for less than 14 hours a week and who may be treated on par with the unemployed. This will include 16.1 million persons in rural areas. (7.6 million males and 8.5 million females) and 2.5 million persons in urban areas." According to us the figure relating to urban unemployment is a gross under estimate. The survey conducted in various States will bear this out. We think a separate paragraph should be inserted in this chapter dealing with the problem of under-employment.

Total number of persons working less than 28 hours have been estimated by the committee at 27.2 million heads. These 27.2 million persons should be categorised as "severely underemployed". This will enable us to get an overall picture of the magnitude of the problem. Besides, the committee could have also made the following recommendation: viz.

That the Central Statistical Organisation should publish every year a white paper on the trends of employment, unemployment and under-employment, on the lines of yearly statements on national income estimates.

Now I come to Chapter on Education and Training "Causes of educated unemployment."

According to the report "a major factor has been the evergrowing rush for higher education, etc."

A major factor, according to the Education Commission's report and many other such reports, is the present system of education itself. The British rulers introduced the colonial educational system in India to recruit clerks for their colonial administration. The system introduced by the alien rulers remains more or less unchanged even after the 25 years of independence. There had been however very minor modifications here and there. Surprisingly enough this basic factor has not been mentioned in the report.

The recommendations with regard to higher education, we apprehend, will lead to curtailment and restriction of higher education. This, we oppose on principle. The Committee's recommendations are based on an erroneous and lop-sided notion of so called "higher educational explosion" in India. The following table will speak for itself.

Students in Higher Educational Institutions
(per 1000 population in 1968)

1. China (mainland)	122
2. U.S.A.	37
3. Canada	23
4. U.S.S.R.	19
5. Philippines	16
6. Japan	15
7. Sweden	15
8. Netherlands	14
9. Australia	14
10. France	10
11. Poland	10
12. Italy	8
13. West Germany	7
14. Belgium	6
15. U.A.R.	6
16. Pakistan.	3
17. India	2

Source—India, Pocket book of Economic information 1971; Government of India Ministry of Finance, Department of Economic Affairs.

It can be seen from the table that India's rate of admission is lower than even Pakistan.

Qualitative improvement in higher education is certainly desirable and for that the present structure has to be radically changed and a new one brought into existence. Higher education in the field of art, culture, etc. must not be curtailed in the name of "quality".

Some Basic Issues

The committee have rejected the suggestion for unemployment relief. We wholly disagree with this. We do not lose sight of the fact that it is an enormous job to identify the persons who are genuinely unemployed. The financial commitment in connection with the implementation of the scheme is also considerable. Besides there will be causes of misuse and corruption. But on these grounds we cannot deny subsistence allowance to the unemployed. They are suffering not because of any fault of their own. The Government has to

take the blame for adopting wrong development programmes and in keeping alive the outdated socio-economic system as we find today in India. It is the bounden duty of the Government either to provide them with suitable employment or in the alternative give them subsistence allowance so that they can survive. In almost all the countries of the world worth mentioning, the government takes care of the unemployed persons. We feel in India too the unemployed persons deserve equal treatment. We should have recommended in clear language the broad principle on the basis of which the government should work out a detailed scheme on this.

If the government has the mind to be good to these unemployed, the problem of funds can't stand on the way. We have to treat this whole thing as a war on poverty and unemployment. And when we fight a war we do not hinder our cause for want of money.

The recommendation for the creation of a special fund (unemployment subsistence fund) should have been given top priority. This could easily be created by a direct special levy on the concerns under the control of the 75 monopoly houses, large independent companies, as well as the foreign controlled companies. Nobody will deny that they are passing through very prosperous days. This special levy which may be called "unemployment subsistence levy" should be imposed on the rural rich also.

While the committee have generally expressed their opposition to automation and other labour-saving devices, it had recommended introduction of sophisticated technology and mechanised equipment in certain cases. This recommendation, in our opinion, will undoubtedly lead to misuse and backdoor automation and mechanisation. It was necessary to say categorically in the report that we are opposed to automation in principle. Even in advanced countries like the U.S.A. and the U.K. it has been seen that automation has led to displacement of human labour. In India, where we top in the world in unemployment and where the avenues of employment is severely limited, any kind of automation will only make a bad thing worse.

I am grateful to my colleagues in the committee for giving me the opportunity to submit this note of dissent.

(Sd.)
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MINUTE OF SUPPLEMENTATION

By

GAUTAM MATHUR

I. PREAMBLE

While forwarding the Interim Report of this Committee to the Hon'ble Minister of Labour and Rehabilitation the Chairman had mentioned that we were addressing ourselves to some Basic questions and eliciting the opinion of the groups on them. Since that time a discussion on these has taken place within the Committee on a number of occasions, and it has also had the benefit of the report of the Groups with their annexures including one dealing with the special viewpoint which is known as the Long-Term Strategy Approach. The Committee has wide terms of reference regarding Long Term measures for promoting employment including changes in the industrial, fiscal, monetary and educational policy required for the purpose. In that context, in the Chapter on Basic Issues the Committee has considered some of the elements raised by the Long-Term Strategy Approach and incorporated them in the relevant section of the Chapter. In view of this a Minute of Supplementation on this approach written by the present signatory is included as part of the Report as the issues raised require to be given serious attention in the formulation of Government and National Policy, though the way the Strategy may be implemented, would require a considerable amount of further research. In its various recommendations on particular matters the Committee has tended to lean towards the principles of choice as enunciated in the Long-Term Strategy Approach as far as it may be practicable. But the present signatory has the feeling that the Committee will find it difficult to see its way to accepting the Approach in its entirety, and hence it has been necessary to write a separate note to present the viewpoint in its essential elements in an integrated manner. This note, therefore, presents the elements which are of a basic nature in the Long-Term Strategy Approach which, in the opinion of the signatory, ought to regulate the policy towards non-employment.

II. GROWTH AND EMPLOYMENT

2. In the Strategy Approach the question of creation of employment opportunities is intimately linked to the Growth process. The question of employment is viewed as an essential part of the development process and a part of the plan, not outside it. As a matter

of fact in the Strategy Approach there cannot be any activity outside a proper Plan of Development, for any increased level of work in any field either uses physical resources or produces them, and hence the level and composition of the National Product is effected. For a plan to be consistent, production must be at least approximately, according to its provisions.

3. The Strategy Approach rejects the viewpoint that employment should be created in jobs which do not form part of a proper National Plan which is to be in accord with the optimum strategy for the path to a state of development and gives effect to it in operational terms. It is the growth of the National Product in the appropriate directions as laid down in the proper plan which must alone create employment, and it is denied that jobs ought to be created in any way one can even though for unproductive purposes, under pressure of vocal or dormant demand. This is so because the problem of unemployment can be tackled through the Development Path alone. There are innumerable avenues of productive employment in the country where each person can contribute to the National Product forming a part of a proper plan rather than drawing a wage from various forms of mis-employment be it as a doorkeeper outside an executive's office or at a higher level, a Minister without adequate portfolio.

4. Efficiency in production must be the criterion for creating the jobs, and what it consists in, is the scope of a part of this minute, in so far as an efficient technique is one which forms a part of the Optimum Strategy obtained on the basis of minimising the time for obtaining the objective subject to the constraints. Giving jobs through some special programmes outside the strategy can only be the result of failure of effort to plan for development properly or shortfall in implementation. A plan should be flexible enough to allow introduction of alternative measures in case of shortfalls without affecting the structure of resources required elsewhere in the plan.

5. Secondly, the Strategy Approach denies the view that in conditions of existence of quite a large reserve of non-employed population, employment can be created in the long run without growth, or that there is a choice between growth and employment. It is known that in the Optimum Strategy pertaining to the existing conditions, one cannot get

employment except through laying the foundations of an economy growing in an optimum manner, and, on the other hand, one cannot get the economy growing in the *right manner* without creating sizeable employment. If there is any deviation from these two counterpart principles, then any stray employment offered is misemployment, while any odd investment created is misinvestment, both of which reduce the capacity of the economy to offer more employment to others, because the appropriate capital and consumption goods are not correspondingly built up, on the basis of which goods, future growth would be accelerated.

6. One cannot also create employment validly by techniques which yield so little product that a part of the wage has to be subsidised from some other industries. To put full employment as a short-term objective in an under-developed country is to condemn it to perpetual under-development, because this can be achieved only by techniques of production which have so low productivity per man that even the payment of a subsistence level wage is jeopardised. Such a course must be avoided, howsoever strong may be the demands for full employment by the non-employed members of the working force. The economy should draw into the organised sector of appropriate techniques (be they found to be of high or low degree of mechanisation) as many non-employed workers, full-time or part-time, as possible at the subsistence wage, while the rest should remain waiting in the traditional occupation drawing the same wage as they have done till hitherto. It is through this that fast rate of growth will be engendered for those non-employed workers to be brought into the pale of the organised sector as employed persons in the next few years.

7. A contravention of this principle by using too high a degree of mechanisation (for the economy as a whole) gives little employment now and little in the future because of the low rate of growth on account of the very high capital intensity per man. A contravention by using too low a degree of mechanisation (for the aggregate economy) yields no possibility of growth, and hence it may be that a high level of employment (though at a wage level below subsistence) may be achieved now, but in the future the situation cannot improve much, as growth is stultified. The optimum technique is the proper vehicle of growth, employment and social justice, and it lies in between these two extremes, but

leaning towards a fairly low degree of mechanisation in the consumption sector, and consequently yielding a high employment-potential.

III. LONG TERM AND SHORT RUN

8. When we talk of Growth, it is meaningful to view the process of growth over a long period. All development has to have its sights fixed to a long-term objective and what is created in the short run is the initial instalment of a long-term path of development. Non-serious thinkers often close their eyes to the long term by quoting Keynes out of context: "In the long run we are all dead." They laugh over the forty-year old joke and for them the matter ends there. They fail to understand that Keynes was, in this quip, getting impatient with laissez-faire economists who were recommending government inaction on the basis of a theory that, in the long-run, unemployment would be corrected by itself. The aphorism has no significance for a situation of planning where the economist is recommending immediate government action but the matter to be decided is whether the choice of investment is to be governed by consideration pertaining to a short time-horizon or a long one. In this context it is relevant to assert that though we die in the long run, as builders of our national economy we live for the long-run and, aim to create an economy wherein our children will have a better deal than what we have been able to enjoy. This is envisaged through planning with a long-term horizon. A series of short-range palliatives will not change the situation substantially and will take the country astray.

9. It is, therefore, desirable to distinguish the term "long-run" which signifies automatic equilibrium through the market mechanism without government intervention, and hence a mythical state which may never be reached, from "long-term" which signifies the long-range horizon for active government intervention through a plan of development to actuate activities to take place which would not automatically have occurred in a laissez-faire economy.

10. Take for example, the policy that we earn foreign exchange in the short-term by exporting iron ore. It looks an exceedingly attractive proposition for solving balance-of-payment problems. But a little bit of thought as regards its long-term effects would yield the result that if this is continued to be done we shall one day find that the iron ore

reserves for our own needs have been depleted, and our further development is retarded. This is apart from the result that much more foreign exchange could be earned by converting the iron ore into steel, the steel into equipment, and the equipment into consumer-goods which are required for the export market. We also avoid thereby the loss of foreign exchange in the short-term which is due to other countries importing our iron ore, making use of it for their own growth, converting it with a superior technology into equipment and goods which they sell to us at prices higher than those charged by Indian manufacturers, as also compete with us in the markets of developing countries. Further, it hits market within the country also, because of the craze for imported goods which finds scope through partially successful pressure for liberalising certain types of unnecessary imports or goods smuggled into the country.

11. In terms of employment, there is a similar confusion between short-term measures and long-term measures. For instance, there is a lot of effort regarding implementation of crash programmes. A crash programme should not, in spite of what its name signifies, refer to an unplanned and haphazard set of schemes. Ordinarily the schemes should be well thought-out in advance for various contingencies, so that they may be interlinked in an integrated manner with the growth process. They should be parts of a contingency plan and there should be no quality of 'crash' about the programme when it means only that it is implemented speedily. It should really comprise of a set of interlinked district plans which are to be as a whole speeded up to the limits of the physical feasibility and should provide employment through that process, whenever special needs arise. The schemes in a crash programme which are not a part of the plan, conflict with the long-run needs of development because of the random use of the resources. Speeding up a properly worked-out plan does not conflict with the long-term objectives because it brings its fulfilment nearer. Hence, the latter alone should be the vehicle of providing employment. According to the Strategy Approach an ill-worked out crash programme will not solve the problem of unemployment but a well-integrated plan only will substantially solve the problem of unemployment. If the schemes are outside the plan, the problem of unemployment cannot be solved by crash programmes of the uncoordinated sort wherein a road is built from nowhere to anywhere, or a couple of extra clerks are employed to fill up ledgers which

should have been done anyhow by the already under-worked staff.

12. Let us examine another view which states that short-term employment may be increased through production of goods which show a high demand-potential. When we decide to allow production of goods on the basis of demand alone we come across goods which cater to the requirements of those who have high purchasing power. In the short-run the production of these goods creates employment, but in the long-run it takes the economy away from the equalitarian structure (of reduction in disparities in consumption standards). It militates against social policy as well as employment policy, for it brings about a regime in which goods percolate from the top towards the middle income-groups in a very slow fashion, while the common men's requirements are not met.

13. It also generates an economy in which modernised consumer durables are given substantial proportion of investments. Many of these goods can be produced only through highly mechanised forms of production which offer very low employment per unit of capital investment. They set the pace of the economy as a low-employment economy. What is gained in terms of short-range employment through consumer luxuries is lost in terms of potentiality to give employment in the next period. We have got into this malaise of a low-employment economy by concentrating upon the short-run each time. The country can no longer afford to take short-range measures which do not form a part of the long-term-Optimum Development path.

14. The above attitude does not deny the importance of the short-term and the action necessary to be taken therein. But it is to be emphasised that the short-term ought not to exist by itself but should be treated only as a segment of a longer horizon to which pertains a well thought-out plan of development from the present conditions to the objective to be attained in the long-term. Each bit of the short term must take us forward along the chosen path towards that long-term objective and hence the achievement of the short-term becomes extremely important. It is because of this that the short term cannot be thought of except in the context of the long-term path. On the other hand, with changing circumstances (like technical knowledge improving) the long-term path has to be re-chalked periodically, while for short-term shortfalls in implementation changes are required for adjustment purposes. These are

the proper domain of short-term considerations for economic action.

15. This also does not mean that when there are employment opportunities for productive purposes using little of the scarce resources they may be left untapped in the short-term. What is to be stressed is that if these cater to the needs of the common man they ought not to be left untapped and should form a part of the long-term path of development, because they would thereby be able to cater to the demand for consumer necessities which a rapid expansion of the capital-goods sector necessitates. The production of such of the goods as can be exported as handicrafts or works of skill should also form part of the plan and encouraged. Since the same services may be got from many types of goods, the types which substitute the use of the production of the heavy-investment sector by those in plentiful supply may also be allowed to be covered by the plan (e.g. straw-curtains instead of air conditioners). There should be a provision in the plan itself for tapping of the potentials at the district level and the plan at that level ought to be flexible enough to make provision for the commodities which do not require scarce resources and are produced out of the enthusiasm of the local people.

16. We can, therefore, state that our sights fixed on the long-term objective and eyes both on the long and the short period will indicate investment plans for the present period which take us nearer to the target. Our eyes scanning only for feet make us oblivious that we are nearing the edge of a cliff. The tremendous inflationary pressures which an ill thought-out crash programme can generate in the economy, through unproductive investment, would push it to the brink of an economic disaster.

IV. UNEMPLOYMENT AND NON-EMPLOYMENT

17. In the literature of development economics an important distinction is made between unemployment which refers to people who were in employment previously and have been driven out on account of a depression in economic activity and the state of non-employment wherein a large mass of people were never in appropriate employment and are to be drawn into it. If the figures as collected by various surveys are to be heeded they show too low a degree of lack of employment to be meaningful. The definition of lack of employment as used in these surveys itself needs to be revised, for people may be in jobs which provide them too little

even for subsistence, or they may get paid employment for too few days in the year. The Committee has very properly rejected these definitions and has taken the poverty line as a more reasonable measure with social meaning, of lack of employment providing even subsistence. In the present minute, an even wider definition is adopted, termed "non-employment" as referring firstly to the people who do not get subsistence wage whether occupied or not, and secondly to those who do get it but not through using the more efficient set of mutually non-inferior techniques. In the two categories together are all the non-employed. It signifies that if one were wanting to shift to the most efficient set of mutually non-inferior techniques from the individual inferior techniques largely used at present, there would be no labour bottleneck to the shift to the extent of existence of non-payment. The degree of non-employment, therefore, reflects the magnitude of the task of development ahead and the degree of deprivation of the mass of our population at the present from what is attainable.

18. The most efficient set of mutually non-inferior and non-superior techniques are the set of techniques of both low and high degrees of mechanisation (arranged as what is termed a production function connecting capital intensity per man employed to productivity). Herein no technique is inferior to another on the criteria of productivity per unit of capital and per unit of labour, being satisfied simultaneously. Hence, techniques where output-capital ratio is high but output per man is low get high marks on one count though low on the other, are not, therefore, inferior to techniques where labour productivity is high but capital productivity low. They are mutually non-inferior and hence non-superior. They are superior to all techniques wherein output per unit of capital and per unit of labour are both low, because then both the criteria are satisfied simultaneously.

19. These techniques form the set of mutually non-superior and non-inferior techniques depicted as an Efficient-Production-Set or the production function mentioned above. Employment outside these is termed as employment. To be given a job within this set, but in the subset of appropriate techniques chosen on the criterion of national benefit may be called 'True Employment'. During the path of development to the objective, people are to be gathered from the regions of inferior techniques in the sphere

of non-employment and non-True-employment to the fold of superior techniques in the sphere of True Employment.

20. At the end of the path of development the appropriate techniques may be different from the path and hence by the time we have finished traversing the path of development and enter the state of development all the population must be truly employed in the "golden-age" technique as described in the literature pertaining to the work of Professor Joan Robinson in her book "Accumulation of Capital" written eighteen years back. This concept has been taken by the present signatory as the long-run objective of growth in analysis conducted since that time.

21. The problem of lack of employment is thus a long-term problem of lack of True-employment rather than a short-term one of too many people chasing too few jobs. It spans the whole Development Path and is solved by ending the state of under-development altogether. Provision of jobs without reference to this path is a short-run palliative and will not solve the problem of lack of employment. Consequently, if we have to look at the problems of Unemployment we cannot escape the problem of looking to the structure of Development Path and its objective as a whole.

22. This can be done through the framework of Strategies of Development, rather than merely Strategies of Employment-creation.

V. OBJECTIVE OF DEVELOPMENT

23. The objective of long-term development taken as the attainment of golden age refers to a state wherein all the working population then existing will have been given employment in the technique which gives steady growth at continued full employment at the highest standard of living technically feasible and rising according to the full utilisation of scientific advances. The composition of the packet of the standard of living at the objective of development is given by moral choice of the constituent individuals whether they would prefer to have largely material goods or cultural goods. But the potentiality of the economy will be to give goods of either composition, to prevent the situation where people in advanced countries enjoying higher standards of material well-being, laud the great spiritual benefits accruing to the rest of mankind by the lack of these goods for the latter. If austerity in living will be chosen for the long run, it will be the choice of that generation based upon its will, not

forced on them for lack of capital-equipment-capacity to produce the material or cultural goods whichever they will demand.

24. Hence, in the long-run, for the economy to be able to give this choice, the capital stock of the country has to be very high, specially in the basic industries which provide equipment for themselves, for the newer forms of technology and for whatever type of consumer goods which the society may then want. The derived objective then becomes to accumulate the stock of capital in basic industries as much as possible.

25. It may be asked as to why we should worry about building up the capital stock of basic industries when the general standard of living is below what would be considered as a reasonable subsistence level if they were employed. The Central Legislature of a country is composed of members who represent the interest of the people of the country as a whole. In this function, it is submitted that emphasis must be placed on the interest of the future people of the country as well as the present, for it is only on this basis that nation and economies are built up. It is for this reason that our Parliament has committed itself to a policy of priority for heavy investment reflecting our national commitment to the future generation.

26. For more than a century and a quarter we have been in the process of slow development. If the commitment to rapid development had been undertaken a hundred years back, we would have been, by this time, economically one of the front-ranking countries. However, due to the lack of commitment by the Government then in power, our growth of infra-structure and basic industries suffered, so that although we had a College of Civil Engineering many years before the establishment of M. I. T., in the U. S. A., we have been left far behind in technology, though we started planning railroad construction a century and a quarter back, our present network is rudimentary for a large country generating the traffic attendant upon an industrial devolution. Our commitment to the present generation is to give it a subsistence standard as a minimum for all the members who can be absorbed in employment in the optimum strategy, but it could not go beyond that till an adequate stock of capital has been built up in our basic industries. A hundred years back the decision rested with the foreign government. Now the decision lies with us and let us not be accused by the generation a hundred years hence that we left the pursuit of the future for the gains of the present

beyond the level which necessity dictates as subsistence. There will be plenty of opportunities twentyfive years hence to let off steam a little bit after a spell of the Austerity economy. By a gradual rise of the standard of living after near-full employment is achieved, the rigour of the capital-accumulation economy in the Development Path may be somewhat alleviated through phased rises in consumer necessities for all.

27. Various strategies by which accumulation of requisite stock of capital could be attained, can be framed with regard to the type of goods which they stress. The one which is likely to reach the objective in least time subject to the constraints on the path is to be selected as the optimum strategy.

VI. THE CHOICE OF GOODS

28. There are two basic choices which must be made if the economy is to achieve true employment which, as we have stated, can come only from hastening the growth process in a proper manner. The first is what type of goods must an economy manufacture in the consumer-goods sector and the second is the degree of mechanisation for producing these. In some cases these are inter-related, for if cotton clothing is to be encouraged then there is a choice of technique through production of cotton by use of tractors or ploughs, but for terylene there is no alternative to the use of highly-mechanised processes for the production of its basic material. The choice between production of modernised luxury goods and consumer necessities cannot be escaped, because to the extent to which the former draw upon the resources of the Heavy-Investment Sector, the growth of the latter is restrained, because the essential Heavy-Investment materials which consumption necessities require are shifted to luxury production (e.g. steel for drinking water pipes in rural areas is diverted to construction of superb residential colonies in suburbs of towns).

29. The possible strategies are divided into two types on the basis of the choice of consumption goods. In the first case, the choice flows from the Doctrine of Percolation whereby modernised luxury commodities are manufactured for the benefit of the top income-level of the population and it is expected that their use may percolate downwards as capacity expands. But it has been noticed that this process must necessarily be thwarted for two main reasons.

30. Firstly, fresh investment goes into ever newer types of products which the high income-groups keep on voting to themselves.

Thus they get promoted from earthenware coolers to ice boxes, from there to refrigerators and thence onwards to the deep freeze, rather than simple earthen-ware coolers with drinking water sources being rapidly diffused and new investment substantially flowing into them.

31. Secondly, the productive capacity rising does not necessarily lead to economies, because, to achieve these economies large-scale factories with different techniques are required, which means a huge capital cost especially of scarce types of equipment. Hence, the cost may fall only slightly or may be higher than in other small-scale techniques, a phenomenon sometimes wrongly attributed to better quality but which may be observed as having been really caused by over-capitalisation. However, the income falls steeply as the market expands from the top, because of the highly-skew distribution. Hence, the market expands on the strength of high-level salesmanship, advertisement and the pressure of demonstration effect. This leads to shifting of expenditure from essential wants to inessential ones, and the attitudes of mind diverted from achievement of performance of one's work to achievement in acquisition of consumer durables and other essentials.

32. At the same time the techniques pertaining to modernised luxury-commodities being highly mechanised, and the volume of investment large in this sector and in sectors catering to its inputs, as a proportion of investment in manufacturing industry, the profit to wage ratio becomes high and the ratio of management-salary to wage bill of unskilled labour goes up, in spite of wages being above average in many of these industries. The whole process leads to increased disparities in income and through that further disparities in consumption in the absence of effective restraints on consumption. In this sense, a small portion of the working population drawing high salary, profit and wages above average helps in manufacturing the inessential goods which it consumes along with the other privileged sections of the society and the rest of the population keeps on watching this consumption taking place. But when the latter stretches its hand to purchase these goods, it finds them much beyond the capacity of the common man to buy. A so-called glass curtain separates them from the possibility of consuming that which others are seen to be enjoying.

33. The social tensions caused by the Glass-Curtain economy have enormously deleterious effects.

It makes the effort at work for the poorest operative seem to be irksome rather than creating joy in the application of effort. Interest in the work is also lost by those who no longer accept as an act of God the fact that widely disparate rewards are seen to be given per unit intensity of human effort, because those engaged in back-breaking traditional labour get much less than those tending equipment in conditions of ease. This also explains the phenomenon of demand for higher emoluments at all levels, as also the paradox that some unemployed people are not willing to take up regular productive employment at the subsistence wage but are working for short cuts through sinecure jobs like those of peons, or applying their ingenuity or luck to illegal transactions, to gambling, lotteries and stakes. The entrepreneurship also shifts its character from the long-term risk-takers (who are supposed to be the captains of industries and on whom depends the justification for the temporary continuance of the capitalist system during the age of transition towards an egalitarian society) and becomes a band of short-term profit-earners and speculators. To get rich quick and to enjoy the fruits of high living becomes the motto of the society, and is confirmed by economists who call these the incentive to effort for the "take off". But it is not realised that for purposes of rapid development in a plan regime, the whole structure of our society gets vitiated by the picture which the Glass-Curtain Economy establishes. Apart from diversion of resources to inessential wants and fancy goods, the highly mechanised forms of production in this sector and the low rate of growth which it imposes on the economy as a whole results in continued non-employment for the rest of the economy for a very long span of time, if not possibly, on a permanent basis.

34. One cannot recommend the creation of employment through industries belonging to the Glass-Curtain Economy, for that employment is illusory in terms of the alternative employment foregone. Thus a tape-recorder factory may use up scarce types of physical capital to the extent of half a crore of rupees and a corresponding figure of scarce human capital, and the employment it may offer may be to a hundred workers direct or to two hundred including ancillary purposes. Increasingly, to secure a large chunk of allocations in the Fifth Plan, the manufacturers or the departments of industries at the State level and the Central level, are making out the case for the highly mechanised modern luxury-commodities to be actively encouraged,

either on the basis of extra employment they will offer or by trying to show they are necessities of a functional nature or are useful for education, or for family planning or rural uplift while it is well known that though these attributes may be true to a certain extent, the decisive factor for the goods to be produced depends upon the demand created by the entertainment or such other elitist value they may possess, and the employment created will be microscopic in relation to the opportunities lost through not making an alternative use of the scarce capital in less-mechanised techniques.

35. One can also countenance extension of this type of production through creation of demand for the goods through advertisement. The neo-classical economist stresses on savings but allows free inroads into its implementation through the process of advertisement which is more persuasive than the national call to austerity in consumption. Till the Advertisement Economy exists, and grows with better techniques of mass media, marketing etc., for the creation of more wants by psychological appeals, effort of the Government for a savings campaign is a losing activity. The strong appeal to consume more must, in the minds of the public, win out against the feeble attempt at the appeal to consume less. A reversal of the strength of these two appeals is essential to undo the ravages, which the Glass-Curtain Economy is bringing into our total economy and society.

36. Because of this, one must change over fundamentally from the procedure of asking how many jobs can be created in what industry and adding up for total employment. Employment created through the Glass-Curtain Industries and activities is dearly bought. It destroys employment opportunities multi-fold elsewhere. It also nullifies the attempt of the Government as has been accepted in the Fifth Plan Approach to give social and economic justice to the common man.

37. It having been decided that the Doctrine of percolation hitherto followed by our economic system cannot bring the target of long-run development and employment nearer, nor can it yield social justice, we turn to the Doctrine of Permeation, which is the alternative choice regarding method of diffusion of consumer goods for improvement in the standard of living.

38. According to this Doctrine, the consumer-goods sector of the economy concentrates on producing the goods which the employed workers require at subsistence. The

idea is, as enunciated as a moral dictum by Professor Richard Kahn in his Jerusalem Lectures about fifteen years back, that the standard of living ought not to be raised for the fortunate few who happen to be employed, while non-employment lasts and until the whole population has been brought into the net of employment. Till that time all increase in consumption-goods production ought to be more equitably distributed through greater employment. Only after near-full-employment is achieved can a moral case be built for gradual rise of standard of living beyond subsistence and there also the interests of the long-term growth may restrain the rise.

39. After full employment is achieved, whether the real wage may or may not be raised will depend upon the choice of Parliament, for reaching the state of full development early or allowing better living standards gradually. In any case the rise howsoever gradual will be through permeation of the economy with goods which all will consume rather than selected goods for the top-most income brackets. Hence, such an economy will not get to producing what nowadays may be described as luxury articles, until the time accumulation of capital has gone upto such a height that there is productive capacity for these goods to be given to all. Barring advance action in preparation of next phase so that changes are not abrupt, for the whole of the present phase it envisages the formation of a society in the meantime, which has equalitarian structure of consumption, through fast expansion of consumer necessities. The rate of growth is initially very high in this economy as the wage is at subsistence, and technical improvements keep on taking place in the most efficient set of mutually non-inferior, non-superior techniques available to be embodied in physical capital. The rate of capital accumulation will, therefore, remain high in such a case. Only after enough capital has been accumulated to satisfy the requirements of consumption for everyone at the targeted standard of living, does not allow the actual standard of living to rise fast and the rate of accumulation to drop from the high level of the path of development to the lower level of equilibrium rate of growth as a developed country.

40. The planning authority in the regime of permeation, all the time chooses the consumer goods which are to be produced and takes measures to ensure that they are produced in the right quantum to satisfy the requirements of all in employment at the standard prescribed for efficiency, and of the

rest at the minimum requirements for existence. The choice is a technical choice as regards nutritional and clothing standards etc., and is made by the democratic state not by the producer. Such an economy chooses the goods and equipment for producing them not by the pressure exerted by the producers that such and such products are "good for you", nor by the consumer that "we want such and such goods", but by the needs as envisaged by the Democratic State.

41. The principle of democracy which envisages equality of voting rights for everybody is thus extended to the market. Hence, either there is equal distribution of income and wealth, or the principles of consumers' sovereignty is exercised through the choice of the representatives of the consumers elected to Parliament and action taken through direct controls or fiscal instruments to enforce the choice. It cannot be allowed to be exercised by the individual consumers in an unfettered manner when inequality of purchasing power allows some individuals to cast more votes than others for certain commodities, thus violating the extension of the democratic principle to the field of consumers' choice in the market. The distortion in the composition of the consumer goods produced comes about because one of the essential principles of democracy of 'one man one vote' is not extended to the economic field.

42. There are other reasons also by which misinvestment is encouraged. Thus it is suggested sometimes that a rural housing programme is desirable for employment-creation because it will tap the financial resources of the farmer who has recently become rich. From the point of view of national benefit a rural mansion built for the new-rich farmer with a holding near the ceilings level is of very little value as a national asset. If the employment is to be created productively, it ought to be for creating the infra-structure in the rural areas and not through allocations of physical materials in the rural housing programmes for the richer farmers. When one talks of housing in the rural areas one should first of all talk of investment in the worst parts of the village habitations and some minimum degree of shelter for the poorer farmer rather than for the richer one. In that case the linking of that programme with the wealth of the richer farmer gets us nowhere, for the poor farmers' housing schemes will have to be subsidised on government expense and the richer farmer's wealth does not automatically get mobilised for that purpose. Thus adherence to Classical Public

Finance to "mop up financial resources" results in the distortion of investment in this and many other cases.

43. The structure, of the economy operating under the Doctrine of Permeation also envisages that demand cannot be left to determine the choice of the goods to be produced. Hence, the Democratic State takes up the right to determine what will be produced and what will not be produced, so that the top decile among unequal consumers will not assert their sovereignty against the class of consumers as a whole. What measures are taken towards it depends upon the political structure and the type of the economy. But let it be clearly understood that a mixed economy operating in a democracy is as much subject to the principle of choice of goods by the State, as an entirely socialist economy would be. The difference lies in the instruments of implementation to get the desired results through the private and public sectors, not in the purpose to be achieved.

44. Such an economy envisages the withdrawal of the right to advertise and to create wants where none existed. It cannot allow the continuance of the present state of affairs whereby two major policies of a conflicting nature are simultaneously being followed by the system, so that we have a powerful Advertisement Drive to consume more taking place through private as well as public-sector auspices and mass media at the same time as a Savings Drive which is quite ineffective relatively in its appeal to consume less. We cannot expect the propensity to consume to be low in such a set-up. Under the Doctrine of Permeation the drive to consume less will not lose the game all the time to the drive for consuming more. Hence, persuasive advertisement in the press, on the air, screen and on the road-side and in buildings are all to be curbed. Informative advertisement as to where such and such goods in the priority sectors can be found, may be permitted, but great care must be exercised that it does not deteriorate into Persuasive Advertisement for the non-priority goods.

45. For such a purpose it is not much use pointing out that it would be impracticable to demarcate the line between the two types of advertisements. Such a criticism is being made even with respect to the line between essential and inessential goods quite often. But it should not be forgotten that the social laws are all the time making and enforcing fine distinctions. How is the line drawn between a "nice drawing" and an "immature

depiction", between "good taste" and "bad manners", between 'libel' and 'fair criticism', between 'literature' and 'pornography'? Yet it is done every day by art critics, followers of social etiquette, editors, censors, courts, etc. So also, it can be easily determined whether the use of sex appeal for selling quality cigarettes can by any stretch of imagination relate to informative publicity for the priority sectors of the Austerity economy. Persuasive advertisement can be stopped without harming the flow of free information for industrial production of goods belonging to the optimum strategy and their equipment, if the authorities so wish and take action with a will.

46. It may be asked as to what is to be done with the industries already established or producing luxury commodities. The answer would be two-fold.

47. Firstly, the industry should be made export-oriented, and even if it has to be subsidised for holding its purposes of competitiveness, there is a gain for the nation in foreign exchange for the subsidy will be in rupees. Secondly, the remaining product should be used for common consumption, for instance, the refrigerators in hospitals and laboratories, car as public vehicle, etc. To equate the position of those who already have these goods and those who would have bought them and they are now denied because of change in social policies, the consumer durables with the individuals may be requisitioned and taken for public purposes for which a rental should be paid to the owners.

48. It is undeniable that administrative problems for such actions would be enormously difficult to solve, but methods do exist of solving them. In conditions of stress other democracies have used the administrative sanctions for similar purposes. A firm state, if it is worth its name, ought to be able to solve these problems. If it is not possible to surmount the administrative sanctions in the structure of socio-political economy which we have, then let us be clear that in that case the society will have to choose between giving up the system of planning dedicated to equalitarian policy or the political structure itself. A society which allows itself to be dictated to by smugglers and black-marketeers and cannot change the situation will, in any case, collapse one day under the strain of the deprivations inflicted upon it by the parasitic elements.

VII. NON-INFLATIONARY GROWTH

49. In the working of the Doctrine of Permeation, the consumer goods necessary having been decided, the next choice to be made is the choice of techniques of production. For this purpose we have to choose between alternatives, each generating a strategy because the profile of production and the framework of the economy from the present time till the common objective of all strategies is reached is different for each type of technique used which generates the corresponding strategy.

50. In each case, growth is to be non-inflationary in the sense that real inflation would not arise wherein prices rise faster than money wages. This is brought about through investment in equipment and other inputs of consumer-goods production along with the equipment already existing being at a level sufficient for supplying the total requirements of consumption goods of the employed population. In such a situation, if the money wages are constant, so also will the prices be stable and vice versa. Hence, any other type of investment which does not enhance the production of consumption necessities and only create the requirements, waits upon the expansion of investment in consumer goods so that the surplus created there may be used for catering to the requirements created in the consumer-goods sector itself and other outside investments or expenditure. The investment in goods which are not consumption goods can be planned only in a complementary manner with investment in consumption goods. The position of investment in nonconsumption items is like that of a guest in a Mess Hall who can validly gain entry only when accompanied by a member and when not more than, say, two guests come with the member (which in this case is amount of investment in consumption goods). The entry of the former without the appropriate quantum of the latter in a plan contravenes the rule of non-inflationary growth. As long as the correct ratio is maintained between the Inflation-Dampening and Inflation-Creating expenditure growth will be non-inflationary and there will be no shortages. It is the attempt by planners to make the non-consumption-goods investment gate crash into the system when unattended by Investment in Consumption necessities that creates the bottlenecks, shortages and rise of prices, by upsetting the balance between investment in consumer necessities (which are anti-inflationary) and other expenditures which are pro-inflationary.

51. In our monetary policy we have been under the substantial influence of the Classical Public Finance by which essential investments suffer from the bottleneck of finance, in the unfounded fear that inflation would be caused by providing finances beyond the current and the capital receipts of the government.

52. The main point which is brought out on the raising of resources overlooks the fundamental aspects of the situation that the resources at the national level are the physical resources and not the financial resources. If a certain set of projects interlinked together on the basis of present physical endowments including natural resources, equipment and skills, is physically feasible, then there must be a feasible financial counterpart of that. For projects to be physically feasible there must be the natural endowments, equipment and skills available, as well as the consumption goods for operatives who are engaged in completing the projects or those who are going to require goods, as workers operating the project when it is ready. Hence a huge programme of adding to the necessities of consumption is an essential pre-requisite of any set of feasible projects.

53. The balance between the programmes which increase consumption of necessities in a short time in relation to the projects of longer duration and other projects is referred to as Balanced Allocation Ratio. If the Planning Framework fails in putting investment allocations according to this ratio, there is bound to be expectation of inflation occurring. In this system, control of inflation lies in the physical allocations themselves. This process liberates the planning of activities from the artificial constraint of financial resources, because for this expenditure in the Balanced Allocation Ratio the source of how finances are raised is immaterial regarding creation of inflation.

54. The conditions for non-inflationary provision of finance is unlimited quantum may be listed as follows :—

- (i) The programme of quick-yielding nature for production of necessities to be in such ratio with longer gestation projects that the surplus created in the former sector off-sets the pressure of demand for consumer necessities generated in the other.
- (ii) The technique used should have as high a surplus for re-investment as technology allows at a given capital

intensity, and must not be an inferior technique for that capital intensity, after allowing for value of capital for the notional value of scarce types of capital whose actual price is low (e.g. foreign exchange).

- (iii) The inputs should stress conservation of scarce resources (foreign exchange, steel and other products of Heavy Sector), if the production is outside the Heavy-Investment Sector, and techniques are available.
- (iv) There should be linkage and coordination with other activities in the same field inside or outside the unit of development in keeping with the Area Development Plan.
- (v) There should be feasibility in physical terms, e.g. the availability of raw material or possibility for it to be raised through quick investment, the existence of under-employment in that area or an active policy of labour immigration, etc.
- (vi) The goods selected should be consumption necessities or their equipment of a low degree of mechanisation or infra-structural facilities.
- (vii) If the scheme is in the private sector with firms operated by the self-employed, it tends to encourage the miniature or small scale of production.

55. Under these seven conditions, the project can be immediately financed by deficit financing without fear of inflation. It is for spending on activities related to Defence or the Long-gestation projects or Consumption expenditure of government (e.g. the implementation of awards of the Pay Commission, or paying for huge secretariat buildings, military parades) or for making heavy-capital goods that the government has to be worried about financial resources through taxation, because of these expenditure some are highly necessary while others are unnecessary but all are of inflation-creating nature. We have, on the one hand, investments like Defence which create demand for necessities through expenditure incurred but do not automatically increase the supply of necessities of consumption. In technical terms this is equivalent to having a gestation lag as large as infinity as regards their capacity to generate product for the civilian sector of the economy. There ought to be, therefore, a balance between Inflation-Creating Investments and Inflation-Dampening Investments,

so that the fear of inflation is not there whatever the way finances are raised. This particular attitude serves the link of physical planning and employment creation from the way finances are raised, and hence abandons the system of artificial restraint of financial resources which curb the fruitful investments.

56. The above does not imply that one lacks consciousness of the fact that creation of employment in a productive manner requires investments which will impose a burden on certain sections of the community. But it is not merely the financial burden of paying taxes which is the important aspect here but of denying to the upper-consumption groups of the community access to certain goods. It is the revenue from tax on advertisement and commercial broadcasting which men used for employment-creation generates sufficient productive employment, but the stoppage of further investment in television altogether, and utilisation of those resource for electric generators which will help lifting of underground water up in small villages where provision of water supply for irrigation or even for drinking is lacking.

57. It is not merely the resources raised by taxing occupants in luxury hotels which has to put a burden on the upper-consumption group, but the resources set free for the nation by not building any further luxury hotels for use by our countrymen. It is not the tax revenue from sale of luxury goods but the reduction of investment in such goods which are being sold which sets free resources of a physical nature to be utilised for productive-employment schemes which are of benefit to the lower-consumption classes in society. It is through this deprivation that the burden of higher employment ought to be imposed upon the higher consumption-groups. If the higher consumption groups continue to have access to goods varying from luxury limousines, hotels, restaurants, palatial residences or refrigerators, tape-recorders, decolam furniture, television sets, travel by Jumbo Jets etc., to terylene cloth and cosmetics, then what is the burden which is being borne by the higher-consumption-groups for the purposes of employment generation? The burden of providing employment is not that some of their assets are being raked off through taxes, for that is no burden at all if the comforts which are being created, beyond the functional requirements, continue to proliferate among the richer classes, while the lower middle classes and the poorer sections of the community are not able to get even adequate nourishment for the purpose of efficient work,

and their families are deprived of minimum clothing, shelter, and opportunities for training for productive jobs.

58. Hence, in the remaining year of the Fourth Plan the creation of infrastructure in about a thousand selected Growth Centres in the country, is essential for the provision of necessaries of consumption to the lowest income-groups. As the techniques used therein will be of low capital intensity, they will create employment as a necessary part of the plan of production. This will aim at rapidly increasing requirements of wage goods for subsistence for the weakest sections of the population. They will also serve partly the framework of securing the longer-term requirements of the infrastructure of growth in the Heavy-Investment Sector. All this will be attempted, moreover, without inflationary consequence, because the physical allocations would be done with the Balanced Allocation Ratio in the view. Social justice would be achieved, and the burden of this employment creation will then fall on the high consumption groups not merely through higher taxation on investments, production and sale of these goods but the diversion of physical resources of investment away from inessential goods which is taking away a big chunk of our industrial investment which ought to be going into Heavy-Investments for the future benefit or equipment for consumption necessaries of a low degree of mechanisation (and of a nature which conserves scarce capital). In such a situation deficit financing carried to any extent is free from danger of inflation, and a programme resulting in employment creation through Balanced Allocation Ratio does not have to be scuttled for lack of finance.

59. In a proper plan we shall have to determine the Balanced Allocation Ratio from the technological data of inputs and productivity coefficients and the gestation period of production alongwith real wage rate and consumption propensity of entrepreneurs. A considerable amount of research would be required for it, though the approximations could be done on basis of existing data. We shall then know that, say Rs. 100 crore of investment in long-gestation projects can be added only if, say, Rs. 50 crores has been invested in, additionally, for the production of consumer necessaries. If the latter part is missing, the former can enter only by upsetting the balance and causing inflation all round. The Balanced Allocation Ratio is one of the most important parameters of

economic planning but is not used in our planning structure, even approximately, as a yardstick.

60. In each strategy this yardstick would be different, as the technology used would be different. But sticking to the composition of investment according to this yardstick is most important for the strategy concerned. Under such a regime, real inflation cannot arise in the economy whether financial resources are raised through deficit financing or through taxation. In case of an imbalance in this, inflation must arise and taxation would be ineffective in curbing it purely through taking away a certain quantum of funds from the public for this burden may fall on investment and not on consumption or it may fall substantially on those buying consumer necessities. Inflation has been caused in our economy in the past by never paying attention to allocations for investments according to the Balanced Allocation Ratio, while deficit financing has been accused of it each time, a situation as unreasonable as would exist if defective signalling equipments are responsible for railway accidents while the engine drivers were to get blamed for them repeatedly.

61. In a regime of non-inflationary growth with Balanced-Allocation Ratio, deficit financing would be available to any extent that physical feasibility allows for production of consumption necessities through the techniques with high output to capital ratios. However, budgetary discipline will be maintained in a stronger measure—not as regards balancing the budget, but in respect of balancing the allocations. Any expenditure proposed to be incurred will have to be carefully scrutinised for its inflation-creating or dampening potential, and if it belongs to the former group it will have to be shown to be absolutely necessary (which scrutiny will apply even to various types of defence expenditure to determine which ones are inessential).

VIII. CHOICE OF STRATEGY

62. Among the strategies of non-inflationary growth stressing consumer necessities in the initial phases for reaching the objective of development, we take two main possibilities depending upon the technique to be used.

63. The first strategy uses the technique which advanced countries used for the production of necessities like foodgrains and cotton cloth. They are highly-mechanised techniques and use the products of the Heavy-Industries Sector. The product per man employed is high in these techniques but capital is more than proportionately higher than in the less-mechanised techniques. In addition, the scarce type of capital owing its origin to the Heavy-Industries Sector is even higher in proportion than capital in general, which attribute would be shown to be an even more accentuated form if the correct notional value of scarce capital content were used. In general such techniques exhibit high profit to wage ratio when general wages are at subsistence level, while they create a distribution of income unfavourable to social justice.

64. They also create little employment per unit of capital in the aggregate (even if we include ancillary and servicing industries). They are viable because they create little employment for otherwise, with capital costs being so high in these techniques, if total wage bills were also to be high in this economy, it would be using a highly inefficient technique. The argument that tractors do not displace labour because of the supplementary employment in tractor manufacture, servicing, repairs, ancillary services, etc., is entirely fallacious, for when aggregate capital intensity is high, for a given investment definitely less employment will be offered. There is no point in comparing the situation with an advanced country to say that they have near-full employment in spite of capital intensity being high; for scarce type of equipment is the bottleneck for us while it is not so for them, and our criterion has to be measurement of employment potential per unit of bottleneck good valued according to its real value of alternatively more socially productive uses.

65. The argument against this strategy stems basically from the effect on long-run growth through the leakage of the products of the Heavy-Industries Sector to consumer-oriented production. To the traditional economist who uses simplistic models without differentiation between heavy and other types of investment, this technique seems to yield potentiality of future growth through the high rate of surplus to wages. But this does not mean high rate growth, for capital productivity

is low because of capital intensity being too high. It does not also lead to high rate of growth of the Heavy-Industries Sector which is the key to the future growth of the economy.

66. The second strategy is based upon the use of the less-mechanised techniques for the consumption-good sector. Its rationale is, that for the attainment of the desired objective of the maximum accumulation of the Heavy-equipment and ancillary investment, the rate of growth of this sector should be kept as high as is compatible with technology and the needs of inputs of consumer necessities. The Heavy-Industries Sector include all industries necessary for the self-reproduction of that sector with consumption goods used by the workers and equipment of their manufacture excluded. Thus it includes Steel, Metals Mining, Heavy Engineering, Machine tools, Transport, Colleges for Engineering and Managerial Skills, etc. But it does not include fertilisers because the criterion of ours is not whether the factory looks Heavy (as is the Planning Commission's criterion) but whether technologically it falls in the sector of re-production of the Heavy-Industries, or is derived from them, and is direct input in consumption-oriented industries. Many more industries would be included in the Heavy-Industries Sector, like paper, but only to the extent that it is necessary as packing, writing and drawing material for the Heavy-Industries while paper used for providing cartons for ice creams would not be a part of the Heavy-Industries Sector. If the consumption sector needs of these industries are minimised and substituted by the techniques conserving the use of Heavy-Sector resources, the investment flowing into many of these might have to be reduced to be only upto the minimum level which sustains the work of the rest of that sector. In such a case investment, though employment creating, in five-star hotel, construction would only be allowed to the extent that it caters to the actual foreign tourist traffic through demand which is not bolstered up by use by the executives and officials and tourists of our own country.

67. Now with the techniques of low degree of mechanisation used in this strategy in the consumption-good sector, we know that they are likely to be of such a character that they conserve the resources of the Heavy-Industries Sector and hence do not draw away the resources of that sector to any sizable extent towards consumption. Hence, the leakage out of the Heavy-Industries Sector being low, the plough back of its products within itself

would be very high. The internal relation of processes in the sector are so worked out as to ensure demand and supply equality yielding a non-bottleneck and maximum rate of growth equilibrium of the Heavy-Industries Sector. Hence, no dearth of demand for steel and other products of the Heavy-Industries Sector ever arises, nor is there ever a shortage within the sector. For the essential uses of its product outside that sector, for example for the minimum amount of steel etc., required for the techniques conserving the inputs of the Heavy-Industries Sector also there would be no shortage. But for all other uses there would be created conditions of extreme scarcity and non-availability of the products of the Heavy-Investment Sector. Thus the pricing policy of controlling the maximum price of these products may be replaced by establishing a floor price and for consumption necessities bought by workers in this sector a ceiling price.

68. The Heavy-Industries Sector may use the most advanced and sophisticated techniques alongside the less-mechanised methods. Where superior techniques are available in the Heavy-Industries Sector and are highly mechanised, they should have preference over employment-creating but inferior techniques, because the former increase the rate of growth of the Heavy-Industries Sector. But the same is not true for the Consumption-good Sector, for it may happen that a seemingly superior technique uses so much of the resources of the Heavy-Industries Sector per unit of output of consumption-good, that the rate of growth of Heavy-Industries Sector is reduced because of the diversion of its products from that sector's own use.

69. A combination of techniques of different degrees of mechanisation in the Heavy-Industries Sector along with the techniques conserving the use of products of the Heavy-Industries Sector in the consumption-sector create a number of effects which give the due profile to this strategy as one generating Growth with Social justice.

70. Firstly, the stress on high rate of feed back of the products within the Heavy-Industries Sector itself creates the conditions for the benefit of long-run growth.

71. The emphasis on the use of techniques in the Consumption-good sector which conserve the product of the Heavy-Industries Sector ensure the minimum leakage of the products outside that sector and yet give scope for social justice. This is done, firstly,

through the ample supply of necessary consumption-goods for the requirements created by the workers and in the consumption-good sector and the Heavy-Industries Sector. The price and wage stability is induced by this.

72. Secondly, the use of low degree of mechanisation in this production yields social justice through employment-creating techniques (which bear on their shoulder the burden of fast growth of the Heavy-Industries Sector rather than conflicting with their growth).

73. Thirdly, social justice is achieved through the techniques having a low profit to wage ratio and the distribution of income in favour of social justice which purely Fiscal Policy has failed in achieving hitherto.

74. Fourthly, these techniques are usually of the miniature scale, and some times of small and medium scale. Rarely will they be of large scale. Hence, the conditions which encourage monopolism in the market are absent in this picture and social justice is achieved through prevention of concentration of economic power and the encouragement of the very small producer.

75. Fifthly, social justice is achieved though the techniques which can be diffused in the countryside through the organisation of integrated programmes of Growth Centres. They do not require the expansion of metropolitan centres and their use may reverse the trend of mammoth urban growth with its undesirable social, regional and economic consequences.

76. The second strategy is the natural vehicle of the policy of the Priority to Heavy Investment, because it allows the rapid expansion of that sector to be achieved without the burden of inflation or cut in the consumption standards. This is made possible by the provision of consumption necessities in balanced ratio with the demand created by the Heavy-Industries Sector. In the first strategy considered earlier which used highly-mechanised techniques for consumption necessities, the priority to Heavy Investment is either low (or if a higher degree of priority is imposed then the flow of resources to the consumption sector in the form of Heavy-Industries Sector's products would be reduced and hence quantity of investment would fall in the consumption-good sector leading to shortages in supply of necessary consumption goods). Hence priority to the Heavy-Industries Sector cannot be achieved through the first strategy but only through the second one. On this account

we shall call the second strategy Heavy Investment Strategy and the first one Mechanised Consumption-machinery Strategy, for the second strategy emphasises growth of Heavy Industries, while the first one stresses the growth of mechanised equipment for consumption goods.

77. It may be noticed that the act of diluting the Heavy-Investment Strategy by mixing it with Mechanised Consumption Machinery Strategy to that extent draws the resources of the economy further away from priority to Heavy Investment. The more is the dilution the less the priority to Heavy Investment, and the interest of the long-run suffers while less also is social justice, so the interest of the short-run suffer.

78. Now we may analyse our own economic policy of the last twenty-two years in the context of the framework of the strategies. The avowed national policy was enunciated by the late Prime Minister Nehru as Priority to Heavy Investment. Its means of implementation ought to have been through the Heavy Investment Strategy. But economic analysis had not at that time reached the stage of its having been worked out in the form of strategies. What came to be worked out was the Mahalanobis Two-sector Model which can be recognised to be a faithful reproduction of the first type of strategy and hence basically of the character of anti-priority to Heavy Investment and anti-social justice.

79. In fair tribute to Professor Mahalanobis it ought to be stated that he sought to mitigate the anti-social justice elements in his Two Sector Model by introducing another two sectors which were for creation of employment. But the key word is "mitigation" for this amendment was of a marginal nature. The addition of two sectors were annexures to the main technique used in the two-sector model, while the methodology followed in the two-sector model remained the basic one. Even the leakage of the products of the Heavy Industries Sector to the consumption sector did not fall with the introduction of the employment-creating techniques, and hence the concept of use of employment-creating, low-degree-of-mechanisation techniques in their true elements as techniques conserving the products of the Heavy-Industries Sector was alien to the Mahalanobis Four Sector Model as it was worked out. There was no optimisation of the ploughback within the Heavy-Industries Sector for priority to Heavy Investment to be achieved, for in that case

techniques conserving the products of the Heavy Industries Sector would have won the day and driven out of his Four-Sector Model, the second sector altogether composed of mechanised consumption-good-machinery technique. The Second Five Year Plan following the Mahalanobis Four-Sector Model also was, therefore, not a plan for priority to Heavy-Investment at all and its structure was quite different from the frameworks which could have given this priority. It was a mixture of the two strategies described by us, heavily weighted towards the strategies affixing low priority both to the Heavy-Industries Sector and to the social justice element. Our Planning has, since then, been basically anti-growth and anti-social justice in its basic structure, although they have been claimed to be pro-growth, pro-Heavy Investment and pro-social justice.

80. The Second Plan and the subsequent ones, in their working did not even confine themselves to the state of dilution described as mixture of the two strategies. The Mahalanobis Model did not specifically envisage huge investment in luxury consumption. It left the field open for both types of consumption goods and investments as it talked in terms of average income rising. In the actual working of the model, the pressure from various directions stressed the implementation to be not in the form of emphasis on strategies of consumer-necessaries under the Doctrine of Permeation but in the form of the Doctrine of Percolation, and the substantial injection of elements of the Luxury consumption-goods strategy came about.

81. The priority to Heavy-Investment was later on even dropped from the list of pronouncements. The policy as it came to be implemented was, therefore, not merely of low priority to Heavy-Investment and of low element of social justice, but as we have stressed the whole atmosphere became one of the nature of anti-priority to Heavy-Industries and anti-social-justice. Hence, it is more appropriate to describe the mixture of strategies as in the Third and the Fourth plans by the term environmental pollution rather than dilution, when the country was in the early stages of development and there was quite a large degree of non-employment. It is this analysis of policy in the form of implementation which gives us the true picture of what has happened during the last twenty two years of planning. The Government and the Nation have been unwittingly caught in the system which has generated the pressures.

81A. The general idea among members of the public and of some economists has been that the Mahalanobis Model was a model of priority to Heavy Investment. The strategy approach shows that it was just the reverse, because priority for Heavy Investment in that model could only be introduced by infringing the constraint of non-inflationary growth, for the larger is the proportion of heavy investment products which are to be devoted to Heavy-Industries Sector's further growth, the less is available for the consumption goods sector and hence the supply of necessaries must get adversely affected leading to a cut in real wages. Such a method of priority is entirely unacceptable, and, hence, the Mahalanobis Model was ineligible to be considered as a means of implementation of the policy for Priority to Heavy Investment. The failure of planning based upon the Mahalanobis Model has not been a failure of planning or of priority to Heavy Investment, for the proper strategy relevant to that end (i.e. Heavy-Investment Strategy) has never been tried, and did not ever form a part of the theoretical framework behind the planning action of the Government.

82. It is no use for those responsible for plan evaluations putting the blame for the past mistakes merely on implementation and making the framers of past plans escape responsibility for the wrong framework used by saying that we have already tried the policy of Priority to Heavy Investment, and its advocacy is nothing new, and why it did not work is well known to the Government and other economists as bottlenecks of implementation or limitations imposed by considerations of social justice like inflationary pressures etc. It is submitted that the furtherence of priority to Heavy Investment through the only strategy relevant to it was never tried and is neither well known to the economists in general nor had the Government in the past accepted it in principle even. It is only now that for the Fifth Plan if the objective of self-reliance, employment generation and the common man's necessaries are translated into allocations, then something close to the Heavy-Investment Strategy would have to be followed, for this strategy is not only compatible with the Fifth Plan objective, but a necessary means of their implementation.

83. A reversal of the policy of the Third and Fourth Plan is being thought of now for the Fifth Plan with a welcome renewed emphasis on priority to Heavy-Investment Sector and on consumer necessaries. But without a change in the existing policy towards

luxury consumption goods there is no indication that these industries will cease suddenly to draw physical resources of the economy from other spheres and unless that is stopped by some devices, the pronouncement of a priority of Heavy Investment will not again prove effective.

84. Further, all the time rapid increase in degree of mechanisation is going on in the consumption-goods sector which the Fifth Plan would have to keep in strict check. In the sphere of agriculture (which is very much the sector for creation of employment opportunities) the trend if allowed free play would be dangerous. Under the pressure of demand by some agriculturists, tractorisation is being pushed for becoming a part of the policy of some State Governments and the Central Government. The primary pressure for tractorisation comes from a similar lobby which has been opposing ceilings on land holdings on the basis of higher productive yields. Eight important matters have been confused by the protagonists of tractorisation.

85. Firstly, the productivity which needs to be increased is not per man but per unit of land and per unit of capital. There is little difference in the productivity per acre through tractorisation compared to the situation where sufficient additional ploughing is done by the less-mechanised methods in irrigated lands, and as regards the productivity per unit of capital, the yield is definitely lower with a tractor, while it becomes still lower if it is measured with respect to the scarce types of capital (using resources of the Heavy-Industries Sector or foreign exchange, and skilled human capital).

86. Secondly, the displacement of labour is denied by the mechanisationists on the ground of a higher employment in ancillary occupations. This is not the proper method of evaluating employment potentials of techniques of various degrees of mechanisation. Tractors are only one example of a mechanised process for consumer-good production. If one takes the total quantum of highly mechanised equipment and finds out as to what amount of alternative employment it would have created in the economy with less-capital-intensive methods, the mechanised equipment would definitely be labour-saving. We cannot befool ourselves by believing that ancillary occupations cause more employment generation, for were it correct that tractors are as employment generating as the improved ploughs, they would be having very low

productivity per man-employed in the aggregate and yet they would be more highly capitalised. Hence, they would form a fit case for being actively discouraged as a highly inefficient and inferior technique.

87. Thirdly, tractors are said to get rid of back-breaking work. If this is the objective then they will succeed in doing so for only a very small proportion of the agricultural population because of the high capital intensity. One has to build up enough capacity of the Heavy-Industries Sector to get sufficient tractors to replace all the ploughs and remove back-breaking work for all rather than for the fortunate few who can afford the tractors or facilities which the tractor custom-service stations can provide.

88. Fourthly, the cost of the tractor is not merely the rupee cost but the quantum of Heavy-Investment foregone. With ploughs we shall have steel ploughed back into steel production. With tractors we shall get the same total tonnage of foodgrains in ten years but perhaps four steel mills less than with ploughs. The cost in terms of our future capacity to grow is tremendous.

89. Fifthly, tractors are supposed to speed up operations and make three crops possible. It is not understood why such huge investment should go into the third crop in advanced regions when a much lesser amount investment in backward regions through providing irrigation or other inputs converts half-crop into two-crop land.

90. Sixthly, tractors are supposed to combat the local shortage of labour. This argument is not acceptable in planning for the country as a whole, for mobility of labour ought to be encouraged from other parts of the country. At the present, some of the more affluent areas resent the influx of labour from the less affluent areas as it goes against the sentiments of the parochial mentality. The Rules for Regional Preference for employment may not be in legislated forms everywhere, but they are no less real as sociological bottlenecks in the more affluent parts of the country in de-barring free immigration of labour and evening out regional disparities.

91. Seventhly, wages are higher where tractors are introduced. This tendency is a sure way of creating wider disparities among workers in the agricultural fields and also a more unfavourable distribution of income because incomes are less diffused in a mechanised agricultural economy.

92. Eighthly, agriculture is the largest field for giving employment. If tractors are encouraged then one will have the pattern of production in which employment generation will be severely curtailed and the present situation will be worsened as regards unemployment among agricultural labourers. The same goes for dairying and milk products as regards their handling, processing, packaging and vending in all of which occupations mechanisation is being introduced rapidly in the economy with the usual reasons of efficiency, rapidity, cleanliness, reliability of quality, confidence in the big producers etc.

93. Under the conditions of increase of mechanisation the policy for the Fifth Plan as enunciated by the Planning Commission both as regards self-reliance and priority to Heavy Industries will remain in the field of pronouncements rather than implementation, because the strategy of production is unmistakably Mechanised Consumption good machinery Strategy which cannot yield priority to Heavy Investment nor, consequently, self-reliance, nor social justice. It is for this reason important to understand that through the objectives of the Fifth Plan would be best served by adopting the Heavy-Investment strategy, yet the action of the Government departments geared to the earlier plans are in a different regime altogether and it would be expected that we might get ultimately the Mechanised consumption-good machinery Strategy in a much more reinforced fashion than in the last seventeen years. With that policy we may as well say farewell to the hope of either priority to Heavy Industries for self-reliance or employment and social justice. To escape from this conclusion one will have to lay down that use of large tractors and similar equipment is permissible only for reclaiming land or where bullocks are not available and either their services or of small tractors cannot be provided under the Agro-Service Centres under Growth Centre programmes from the Government stud farms with custom-hiring source for the really small farmer. Similarly safeguards would have to be used for preventing extension of mechanisation in the production of cloth.

94. The structure of the remaining portion of the Fourth Plan and the proposed Fifth Plan has to be geared towards reversal of the trend of the last seventeen years. Firstly, the strategy has to shift from the Doctrine of Percolation to Doctrine of Permeation in which the luxury consumption goods have no place and under which condition of austerity one may validly ask the working class to restrain demands for rise of standard of living

to allow higher accumulation to take place. It will require also an economy wherein advertisement for purposes of expanding a market for persuading potential consumers to buy some product has no place.

95. Secondly, the strategy has to shift from one using highly Mechanised Consumption-good Machinery to one using a very low degree of mechanisation. Hence, employment generation has to be inbuilt into the structure itself through a low capital-intensity per unit of labour or high labour intensity per unit of capital in the Consumption-good sector.

96. Thirdly, the feeding back of the physical products of the Heavy Investment Sector into activities of that sector itself has to be rapidly stepped up within the next ten-fifteen years from one fourth to two thirds or so. This will also be employment creating due to rapid expansion of this sector, and this would be made possible only by the second action of shifting to a lower degree of mechanisation so that the leakage of the products of the Heavy Industries Sector to the Consumption-Goods Sector are minimised for fulfilling the requirements of necessities of consumption for the workers employed in the former sector, in production of consumption necessities and in the equipment for their manufacture with techniques conserving the products of the Heavy-Industries Sector.

97. Hence, when we talk of growth and employment the proper type of growth for employment creation and longterm development is, as we have seen, in techniques which, in the Heavy Investment Sector create employment through the fast expansion of that sector, and which in the Consumption-goods sector create employment through the use of processes of production which conserve Heavy Investment resources and also happen to be employment creating per unit of investment of scarce types of equipment. These are quite different from techniques which will come about by purely following a policy of employment generation. There is a vast difference between saying that "a proper pursuit of growth leads to social justice", and attempting to maintain that, "pursuit of social justice is possible as an alternative to growth". Those economists who have attacked growth and stressed social justice alone have hardly had any concept of the proper pursuit of growth through the Heavy-Investment strategy and do not also have any idea how social justice will come about in the absence of rapid growth of employment opportunities.

IX. IMPLEMENTATION IN A FIRM STATE

98. Having decided the basic question of the choice of consumer goods, and of investment goods (dependent upon the choice of degree of mechanisation), and consequently the optimum strategy of development, we can now turn our minds to choosing the instruments through which the strategy is to be implemented. For this purpose we have to take as given the political structure which we have chosen, i.e., democracy, and the national policy objective of achieving an egalitarian state. Towards the latter objective, the present period is a state of transition, and has to be planned as such. It is, therefore, to be understood that the instruments for policy which are open to us pertain to the state of transition rather than to the long-term objective. Considerable difficulty is caused by confusing the two and thinking that we can apply the methods pertaining to the objective state when one is merely on the path towards it.

99. One can, of course, choose a political structure appropriate to the egalitarian state, and carry it into effect immediately. It is undeniable, that this will give the State the strength and the power to use the fiat instruments, and through them there would be little difficulty in achieving the allocations which the optimum strategy requires. Thus, in such an economy it would be only necessary to order that a fresh engineering graduate would report for duty at the bottom of a coal mine by next Friday, and there would be no question of the person not following the order. Similarly, physical resources would flow out of terylene into cotton clothing, should it be so decreed, without anyone daring to disregard the edict. But a fiat economy requires a Hard State wherein the directions are carried out without question, howsoever keen may have been the discussions and the controversies before a decision is taken. In a Soft State there is little difficulty in evading the implementation by a section of the population, and in effect there is one law for the poor and the powerless, and another for the influential or the rich. The very large number of underpaid officials makes it easier for those who can afford to pay gratuities to flout the edicts. There is a desire for increasing the standard of living to as high a level as people with corresponding rank in the private sector enjoy. This is evinced by even the more well-paid officials.

100. Hence, the Glass Curtain Economy coupled with the Soft State makes it easier for some of the rich persons in the community

to secure favourable decisions even at the level of officers who are not ill-paid. The consideration offered is not in all cases illegal, for a social convention may exist that rewards are given in devious and indirect forms, or there may be merely an expectancy without an actual contract (for instance, that the person in authority concerned will be looked after well after his retirement, by the parties concerned.).

101. The straight and honest officer in such a situation finds himself in a forlorn state and an object of derision. The political interference at the implementation stage creates further complications, as also the break-up of the rules of the administration regarding the limitation of access to authorities for complaints without proper channels. All these go towards breaking up the morale of the civil administration. The structure as it has evolved during the last few years is such that we have been engaged in almost destroying the capacity of the civil administration to act as an effective instrument of implementation. The Hard State also requires that the public, the government and the civil service are committed to the same basic set of ideals as regards its essential elements. This is also not the case in the present state of our administrative and political structure. We are in a Soft State, whereas we would like to think that we are in a Hard State and can consequently take measures which flow easily out of the latter sort of structure of administration.

102. To be a Hard State requires so many onerous conditions that it may be considered to be beyond the scarce administrative capacity available in the country at the moment, for creating those conditions themselves requires a long process of transition and effort. However, it should be well understood that a Soft State without a considerable reform of its administrative structure would find it extremely difficult to undertake a proper plan of development in which allocations are governed by the optimum strategy and not by the wishes of producers and consumers, as also powerful interests from abroad bringing pressures upon the government and the people in various ways.

103. Hence, though we might think that it is difficult to convert the body politic into a Hard State, it is the opinion of the present signatory that we shall find it not only feasible, but necessary, to convert its present system of governance into one belonging to the category of semi-hard, or the Firm State. In this state one does not require the public in

general to be controlled, but it only requires that the very small proportion of population engaged in government administration and that of public-sector bodies will from top to bottom, conform to a strict code of discipline. If the country cannot keep the public officials in check, it is futile to think that in such a situation any plan of achievement of socialist objectives or of proper development can be successfully implemented.

104. The Firm State rests upon three foundations. Firstly, it uses the inductive instruments rather than the fiat ones. Secondly, it relies on a strong Field Organisation for purposes of providing facilities for the plan to be completed in an integrated manner, and for inspecting that the benefits obtained on the basis of inducements to perform certain acts are rightly earned through actual performance, in the manner indicated. Thus if stainless steel quota is to be obtained for making surgical instruments by a small-scale firm, the field organisation will help both in obtaining the allocation and in ensuring that the allotment is not then sold by under-hand deals for making stainless-steel utensils in "black" plants. Thirdly, the Central Government will take up a strong position in relation to the choice of goods and equipment as well as methods of implementation and toning up the efficiency as well as the morale of the civil administration. It will also have a more unitary system of government with larger number of smaller states and ones which are more responsible to achieving the Central Government's objectives. It will also take up powers to solve the inter-state disputes on boundaries and water etc. more expeditiously as also settle disputes of individuals with the State on land acquisition etc. summarily but with adequate justice. It will also ensure that states may not be able to adopt policies whereby they may flout the Central Policy as regards National Development.

105. The hopeful possibility of the Firm State rests upon the assumption that though it is possible for a mass of individuals to conceal their incomes and wealth without collusion with government officials, because no information-system exists about individual transactions, their indexing and analysis, yet it is not possible to put up a factory (or a plant within the factory) producing a disapproved commodity without the whole set of officials belonging to the local inspectorate colluding with the erring member of the public. Whereas the Glass Curtain Economy and Advertisement Economy go on tempting the officers to break the code of discipline all the time, the

type of Austerity Economy which the optimum strategy of development described earlier indicates, helps in one respect to make the civil administrators at all levels to conform to the code of discipline, for very little is to be gained in terms of consumption standards by overstepping the bounds of rectitude.

106. In the matter of the organisational structure of the economy, it is assumed that on the path of transition to an egalitarian economy, private enterprise in some forms would be continuing to exist. Having taken the decision as to the forms in which it may be allowed, the economy is not to be a mere mixture of private and public forms of enterprise, having two different value-systems co-existing. The concept of the mixed economy is not of two separate economies co-existing or a simple mixture of the two, just as the state of youth is not an average of the characteristics of children and middle-age people, but a separate state altogether with its own attributes, specific problems, and methods of dealing with them. For this reason, the system of public and private enterprise co-existing in a Firm State will not be termed as a mixed economy, but called a "Composite Economy".

107. In this system that part of private enterprise which is allowed to be included the Composite Economy is not treated as on sufferance but an element at the age of transition, and there is no indecision and uncertainty about its role for the various phases of the transition path or what is expected of it in the phase unlike the present state when the Government speaks with two voices regarding the role of public and private enterprises, as also ambiguity regarding that part of the private sector which is not in the concentration ring. It would be clear from the very beginning that concentration of economic power in the hands of monopoly enterprise would not form a part of the Composite Economy. The managerial skills possessed by this form of enterprise would be placed at the disposal of the joint sector with the government having in its hands the reins of management. The smaller scale of enterprise is to be allowed to flourish provided they are in the priority sectors, and the government will give facilities to it both through creation of infra-structure, training facilities for its operatives, financial supports, quality control organisations, distribution centres etc. All operatives in public and private sectors must understand that the aim is an egalitarian society and the path of transition is towards attaining it. Production of refrigerators would not thus be an approved activity

merely because it is proposed to be undertaken by a government company. The priority laid down by the planning authorities will be adhered to by both the sectors, and questions of alleged interference with consumers' sovereignty of producer's choice as regards the choice of goods or of equipment by the planning authority as regards what is included in the priority sectors will not be brought up. The vertical control system operates in this regard both for the public and the private sectors. It is within this sphere that choice is exercised, for the horizontal control system of checks and balances and price mechanism, the market, and the optimum profit rate. Hence Persuasive Advertisement would be discouraged in the Composite Economy, nor would a good be included in the priority sector merely because there is demand for it, for instance automobiles except as parts of the public transport system, or room air-conditioners for private use or office except for hospitals and laboratories. The feasibility studies undertaken for loans from the banking and other financial institutions would assess the potentiality of using available inputs to produce products which are required by the priority industries of the economy rather than the fact that they are demanded by those who can afford to buy them.

Both sectors must be made to follow the same code of discipline, for otherwise the working of the public sector becomes vitiated by the sea of private enterprise around it with different practices. Wasteful use of resources is an infliction of damage upon the nation's capacity to grow, and would be penalised whether it is in the public sector or in the private sector, and one would not hear the argument in the Composite Economy that as long as the private sector makes profit it is efficient irrespective of how wasteful has been the use of resources. Hence the government would take steps to ensure that the rate of profit is assessed after taking into consideration the criteria of efficiency from the national point of view. For this purpose it would seek to change the market rates of profit by the actuative instruments at its command so that the priorities and efficiencies of allocations are maintained after inefficient use of resources has been penalised in the private and public sectors both.

X. ACTUATIVE INSTRUMENTS

109. The instruments of a fiatry nature when they are used in either the Soft State or the Firm State do not always achieve their objective. The model followed by the planners, as we have seen, was in itself inadequate

and could not be expected to achieve the objectives. But superimposed upon that has been inadequate instruments of implementation. In addition there has been a lack of determination to seek the translation of the objectives into reality. All these taken together confirm the realisation that one ought not to have ever wondered why planning has not delivered the goods which we wanted over the last twenty-two years. Due to these combined causes, poverty is still widespread, unemployment is acute (as measured by definitions which are economically and socially meaningful), there is skew-distribution of holdings, the concentration of economic power in industry is growing, the price level is rising, the production in certain essential fields is lagging behind (leading to higher money wages being demanded by organised workers who have often to use methods of protest which affect production), while luxury consumption is still going on in spite of the shortage of essentials.

110. These phenomena, as we have seen, are basically caused by the wrong strategies of development which the country undertook (Luxury-goods Strategy in practice and Mechanised Consumption-good Machinery Strategy in theory) although national policy was Priority to Heavy Investment which, if it had been implemented through the Heavy Investment strategy, we would have secured economic growth and social justice and avoided many of the above manifestations. To implement it, efficient instruments of inductive nature would have to be used. It is the purpose of this section to describe them.

111. The inductive instruments are divided into two categories. First of all they are Persuasive and, secondly, Actuative. In the Persuasive instruments comes the field of education which includes mass media. It also includes the means of indoctrination used by governments, whether democratic or directed. For the long-run persuasion by educational enlightenment is the strongest form by which one can be sure that certain modes of action will be followed, for it is difficult for a person to break the moral code dinned deep into his sub-conscious by constant repetition from various sources, especially if it is based on logic and not merely on faith. From long-term commitment to the cause of development and for conformity to the code of discipline and social values which an Austerity Economy requires, there is no more powerful instrument than educational enlightenment. The educational system instils into its constituents the desirability to following codes of

behaviour based upon methods of analysis which tend to set the mind free from superstition and unscientific thought. This element of education is necessary for development and has been used in the past whether it be to preserve the status quo or to maintain a revolution. This should not only form part of education in schools but also in Adult Functional Educational courses.

112. In the Actuating Instruments we have the combination of Penal and Incentive instruments. The rationale is that incentive by itself does not work, but first of all putting a penalty of wrong conduct is indulged in and then giving incentive for right conduct, acts as a powerful instrument because the differential between the right and wrong conduct becomes very large in that case. It also acts on the principle that an open door to the desired cool ante-room to a hall which is on fire and is undesirable to be in, is a better way of inducing a person to go to the desired place rather than just as an open door to the cool ante-room without the urgency imported in the situation by the fire in the hall, or alternatively, a fire in the hall without an open door. Tax incentives follow the policy of the open door, and taxation for revenue is of the nature of the hall on fire with a closed door.

113. The main Actuating Instruments for inducing the Private Sector to conform to the required allocations under conditions of a Firm State are Monetary Policy and Fiscal Policy. They are to be supplemented by the work of the Public Sector in the Composite Economy, such as direct provision of facilities, infrastructure and environment for growth.

114. The incentive part of the Actuating Instruments is provided largely by monetary policy. With an inspectorate or field organisation as has been mentioned earlier as an integral portion of the Firm State, one can implement a policy of differential interest rates with easy accessibility, at low interest rates, for the small producers in the priority industries as defined by the optimum strategy. The policy is possible on account of acceptance of the theory mentioned earlier that deficit financing is not by itself inflationary, but how money is spent governs its pro-inflationary or anti-inflationary character. The rationale is, that for industrialisation progressing fast, the price level of necessities for workers has to be kept under control, for otherwise a wage-price spiral which is an economically meaningless occurrence ensues. For this purpose basically the price of food-

grains and cloth has to be kept low. This is compatible with raising profitability in this activity for purposes of attracting more resources into it, on the guarantee that price of input are to be kept very low. Hence, the rate of interest is to be kept low provided the technique used is of low capital intensity derived from the Heavy-Industries Sector. This will avoid over-capitalisation while keeping the rate of interest low so as to induce investment to be high in the priority lines.

115. The programme of non-inflationary growth and social justice cannot be implemented unless the doctrine of deficit financing being inflationary by itself and irrespective of the proportion in which funds are spent of various types of activities is completely thrown overboard. Both the sectors and self reproducing Heavy Investments may not flow into them on its own account in an economy where profitability is the criterion and is found to be high in inessential lines where the effective demand is always high because purchasing power is always high and we are in a regime where it can be freely exercised. As the production of necessities consumed by the common man may not be the most profitable activity, a policy of loans at low interest rates for the producers of essential inputs for the farmers and operators of cottage industries may be necessary. It will, therefore, be dependent upon the provision of finance which does not depend upon the budgetary constraints, and is essential for maintaining profitability when the price of the product is to be kept low so that the inflation may not hit the working class in industry and agriculture.

116. At the present, we fail to provide finance at the proper time, and consequently get into an inflationary situation. When the wages and the cost of material rise, higher amount of finance is needed for more projects. The more urgent need not also be the most economically important expenditures. Hence, many highly important economic schemes get less investment or are shelved causing dislocation in the field of production and making implementation of the Plan impossible as bottlenecks arising at one place cut down production in the whole line of interlinked activities. The rise of prices in the economy as a whole leads to demand for higher wages by the government servants. These are resisted for a while but ultimately either through settlement of a strike or by awards of commissions at least a partial restoration of the real wage is affected. The acceptance by government of these rises can at that time come only from deficit financing. The Fin-

ance Ministry is then ready to increase the quantity of money but this time for an expenditure which is inflation creating, whereas it did not originally do it for inflation-dampening expenditure. The upsetting of the Balance of Allocations in the wrong direction must necessarily be inflationary. Because in the last step it was associated with deficit financing, the latter is held responsible and hanged for it and the Finance Ministry gets further scared of providing finances at the right time to the right schemes. The price level, therefore, continues to rise and distortions in the Plan keep on taking place.

117. The economists who look for slow rate of growth in lack of savings have caught the stick at the wrong end altogether. What is required is not savings but firstly curtailment of consumption and there is vast difference between the two, for one may buy a savings certificate through postponing investment in digging a well rather than cutting out a marriage feast. Secondly, what is required is investment of the right sort. Finances for that are not provided at the right time under the Doctrine of Restriction of Deficit Financing (irrespective of its complexion of the mode of spending for purposes of inflation-dampening investments) under the ungrounded fear that it will be inflationary which grips the classical economist and the administrator, and does not allow the Ministry of Finance to play its true role in development.

118. The Classical Public Finance as at present ruling the work of the government in all spheres renders the role of the government in development insignificant. As regards monetary policy because deficit financing is considered inflationary, direct help to miniature scale of production in necessaries and their equipment is kept at a low level, though a massive programme is required therein. If financial help to industries is to depend upon the principle of their capacity to repay, then there cannot be a subsidy element in the provision of the finances. Such help will, therefore, continue to be given in general, to high profit industries and to borrowers who are "Creditworthy" or guaranteed to be so by men of wealth who sometimes rake a commission for certifying the return of the loan. For high-profit industries to be helped there is no difficulty for the demand potential to be shown. The goods produced will, therefore, be heavily weighted towards the requirements of the rich from whom there is no lack of demand. The borrowers will also be predominantly among the wealthy or their proteges who are guaranteed by them.

119. For purposes of showing that a lot is being done for social justice, some of these rules will be relaxed in specific cases as show-window cases, but by and large the pattern will be against social justice, and bank nationalisation by itself would make no change in curbing production of the requirements of the Glass-Curtain Economy. Deficit Financing of a sizable character has to be a firm tenet of policy and not an apology if price level is to be contained through production of necessaries and social justice is to be achieved through production of the common man's goods by the common man. We have hardly any monetary instruments of an Inductive Nature in our hands if Classical Public Finance continues to rule monetary policy. The Paleo-economics has deprived our government of a powerful incentive facility as part of the Actuating Instruments in a Composite Economy.

XI. ALLOCATIVE EFFICIENCY OF TAXES

120. Monetary Policy by which deficit financing would be permissible to any extent as long as the schemes of the total plan conform to the balanced allocation ratios between the feasible quick-yielding projects for necessaries and for all the other expenditures, sets free the instruments of taxation from merely serving the purpose of revenue raising to being an instrument of allocation. Taxation can then be used for the social purpose of allocating resources in the manner required by the optimum strategies and the social objectives to be achieved on the path of development as an Actuating Instrument pertaining to the Composite Economy in a Firm State. For this purpose the efficiency of tax is never to be judged by its yield, but by its success in shifting physical resources from inessential to essential uses as described in the optimum strategy. Hence, we have to search for taxes which have got a large allocative-efficiency rather than merely high revenue-yield.

121. The allocative efficiency in a composite state depends upon how individuals and firms are made to change their lines of investment from what the market now dictates in response to high purchasing power of a few, into what the market would dictate after the taxes have been levied and the profitability changed. The taxes in which the rates have to be changed by a very high percentage in order to achieve a small change in the rate of profit of the industry are termed as condenser taxes and in the reverse case magnifier taxes. Under the classical-doctrine of yield as a benefit of a tax in relation to the adminis-

trative cost of collection, the tax most popular with the government would be the Indirect Taxes. Yet from the point of view of decreasing the profitability of an investment they are ineffective. The reason is that the population is stratified into various consumption group. For each consumption group the set of goods pertaining to it seem to be a necessity, and the goods pertaining to the higher consumption bracket are the luxuries. Hence, when the excise duty or sale tax or customs duty on a commodity rises, the demand for that is affected only as regards the persons in the lower consumption bracket who were looking forward to buying it. The demand of the persons in higher brackets remains intact for the commodity and they would be willing to pay for it at much higher prices also. In a country of the size with which we are dealing, 10% of the households is a market as large as one million, and hence demand is substantially there for everything this section wishes to buy. The increase of Indirect Taxes on gas stoves would indeed cut down the demand of the lower division clerk for it, but that of senior officers is unaffected unless the rate of tax is raised tremendously, while no feasible sales-tax rate hits the person at the top consumption-bracket sufficiently as regards his purchase of this and many other commodities.

122. Hence, for the goods the demand and the profitability remains high, so the goods continue to be good candidates for further investments and further loans by the government financing agencies basing their decisions on Feasibility Reports, and more investment is continued in these lines in spite of the complaint regarding the crippling and crushing burden of tax on the industry. The burden is easily passed on to those consumers who have the wherewithal to pay for these, or those on the margin who cannot really afford the commodity, but who (under social conventions of the Glass-Curtain Economy) are obliged to succumb to the Demonstration effect to prevent a loss of face in social circles, and hence have to curtail consumption in more desirable fields, for example purchase of books and journals or education of children, health, nutrition etc. The Indirect Taxes are thus Condenser Taxes, for their allocative efficiency for a unit percentage change in the tax rate is very low. Unless the burden rises as the consumption-group rises, the demand for the commodity from the upper strata remains high and the rate of profit remains high, in line. The Indirect Taxes unfavourably discriminate between the consumption of the rich and the less rich as

regards each commodity, and violate the principle of economic democracy wherein the voting power for demand of goods must not be exercised unequally.

123. The use of Condenser Taxes for the purpose of changing allocation by reducing the rate of profit in essential industries is a crude instrument for a fine task. It is to be likened to the use of garden shears for performing an appendix operation.

124. When we come to the Direct Tax system, we find that the Income-Tax is capable of being progressive and hence is an improvement on the Indirect Tax System. In a tax system wedded to revenue raising, the Indirect Taxes will be the popular ones with the government. In a modern tax system dedicated to its function as an allocative mechanism the Direct Taxes would be the most important taxes. Shift of emphasis from the Indirect Tax to Direct Tax System is a condition for use of taxation as an Actuating Instrument in an economic democracy.

125. However, when we come to the Direct Tax system we find that the Income Tax does not discriminate between consumption and investment which form the constituents of income. It falls on both in the same manner while what is required is to treat two unequally in order to shift the resources from consumption to investment. Income Tax as a form of Direct Tax is also a Condenser Tax, and hence not a powerful Actuating Instrument. This is so for three reasons.

126. Firstly, it penalises investment and consumption equally and therefore acts like a spray which makes the plant as well as weeds wither. An addition to the tax rate on the other hand does not penalise the two constituents equally for it tends to fall more on investment than on consumption which is just what one would like to avoid in a Development-Oriented Austerity Economy.

127. Secondly, it has the property that rate of progressiveness tapers off at higher income slabs. Thus the rate of progressiveness for individuals rises very fast at lower income levels and as high income brackets it slows down because of the constraint of 99% maximum marginal rate of tax. The slowing down of the rate of progression is not easily visible because it gets hidden in the Finance Act through increased widening of the slabs for every five-ten per cent or so rise in marginal rates at higher income levels, whereas the slabs are Rs. 5,000 at the lower income level while the marginal rate jumps up by leaps

and bounds in the lower ranges of the tax base. For firms it is at a flat rate.

128. Thirdly, in the Income Tax there is an inbuilt mechanism for encouraging evasion through the incentive to show one's assets in the name of less well-to-do relations and fictitious persons. For purposes of changing allocations, therefore, the Income Tax has little utility. It is like using the bread knife for the appendix operation which, though it is an improvement on the garden shears, is still hardly the instrument for the purpose for which it is required.

XII. MAGNIFIER ALLOCATIVE TAXES

129. The Direct Tax which ought to be used for encouraging employment through higher investment ought to discriminate against inessential consumption in relation to investment. This tax would be the Direct Consumption tax, a variant of which is the Expenditure Tax proposed eighteen years back by Professor Nicholas Kaldor in his book with that title. It hits at consumption and not at investment on three counts. Firstly, the tax exempts investment and falls directly on consumption.

130. Secondly, it can be progressively progressive, for marginal rates are no longer bound by the constraint of 99% which is so in the Income Tax System by its nature.

131. Thirdly, the tax has an inbuilt incentive to declare investments in the assessee's own name to earn the exemption and hence declared assets would form a larger and larger proportion of the total assets for an assessee as time goes by. Hence, evasion through transfer of assets, which is a very large element in concealment of income, would be checked. The psychology would dictate that one would rather declare an asset and get immediate relief from a very high marginal rate of taxation (say, three or four hundred per cent.) rather than pay this certain high tax penalty now by not showing all the investments in one's own name and reap an uncertain benefits later on. The Consumption Tax is not a Condenser Tax but a Magnifier Tax with powerful means to check consumption. Great as are the advantages of the Consumption Tax, it can still be likened only to a pen-knife for the appendix operation better than bread-knife (Income Tax) and a considerable improvement on the garden shears (Excise Duty), but still not the perfect surgical instruments for getting rid of inessential investments and consumption in the economy.

132. To perform the function of allocative instruments the tax must be capable of three further tasks. Firstly, it must take into account the fact that the Kaldorian Tax System acts only from the side of cutting down demand for consumption good by the assessee. Now in an economy where there is a parallel economy operating, it discriminates in favour of those who spend from undeclared income and the dread of the penalty of the tax at progressively progressive rates does not touch them at all. Hence, it cuts down the consumption of the more honest consumer while the demand remains high from the less honest consumer. This militates against the principle of equality in an economic democracy. It also keeps the demand for consumer for consumer luxuries high, and the rate of profit still remains sufficiently high for investment resources to flow into this sector from elsewhere. The tax as allocative instrument should not merely depend upon the demand for consumption luxuries to be cut out but must also apply the breaks from the supply side. The goods which are not approved must simply be unavailable in the market. Hence the tax must curtail supply through investments being penalised in the undesired lines.

133. Secondly, it must discriminate between different types of investments which the Consumption Tax does not do when it gives blanket encouragement to investment without specifying what type of investment deserves to earn it. The allocative tax must be like a horticultural operation which is not only able to discriminate between the plant and the weed like a weed-killing spray but also between the stalk and the fruit like techniques of grafting (as differentiated from the use of some fertilizers which help the growth of stalk and fruit and weed together).

134. Thirdly, the system of Magnifier Allocative Taxation must discriminate between different sources of income. Investment needs encouragement which a Consumption Tax gives in any case, but human effort requires more encouragement. Hence, the differential treatment of earned and unearned income is a fundamental aspect of a tax system and must be introduced in the tax. Also income earned from priority industries should be treated differently from income earned from non-priority ones as regards scarce skills and equipment are concerned to prevent scarce talents and physical resources from moving into non-priority lines with higher profits and high capacity to pay more. This will tend to shift scarce resources and scarce manpower skills into the priority sectors. This discrimination of source of income is of an entirely

different nature from the discrimination between investments, for the latter refers to how income is spent and the former to how it is earned. Income may be earned from a wrong source but used for investment in the right lines and the latter act deserves inducement irrespective of the former act, and clearly differentiated from it. It may be earned from a right source and invested aright in which case it deserves double encouragement. But if it is earned wrongly, mainly consumed and the small balance is invested wrongly, three separate economic sins are committed and ought to be penalised separately.

135. Fourthly, the system must discriminate between the form of organisation so that large scale and monopolistic industries are put in a position of economic disfavour in relation to the smaller scales and more competitive industries. The income earned from miniature scale (investment of less than Rs. 10,000) is to be given the most favourable differential treatment, to encourage self-employed entrepreneurs, and more employment-creating techniques which are associated with the low capital intensity which miniature scale necessitates.

136. The Disparity Tax proposed five years back performs all these functions which Kaldorian Consumption Tax and the Income Tax do not. It is a powerful Allocative Tax, and termed, therefore, a Magnifier Tax. With this tax in use, allocations would go into the desired lines even when we have an economy based upon the Private Sector. It harnesses the Private Sector in the Composite Economy to social needs and still uses the rate of profit mechanism rather than merely more exhortations to national duties. But it tilts the rate of profit substantially through fiscal action from the positive differential as at present in favour of the luxury-good industries, towards this differential in favour of the production of necessaries, and towards other right forms of investment and organisation. The tax system is used herein as an Actuating Instrument of an Inductive nature in a Firm State rather than Fiatory Instrument being used for allocation, which cannot work except in a Hard State.

137. The Disparity-Tax System consists in, first of all, finding out all the receipts of an individual through income, capital transaction and borrowings. The source of income is then ascertained and the amount scaled upwards according to the deviation from priority industries and optimum techniques of production and right form of organisation etc. This is a penal provision corresponding to lighting a fire in the hall with an open door. Income

derived from the Heavy-Investment Sector, from production of consumer necessaries and their equipment with techniques which conserve Heavy-Investment resources would be scaled down forming an incentive instrument. Thus employment creation, the common man's need and long-term growth are all given incentives.

138. The national income thus derived, the assessee is next asked to present details of all investments which he has done. Each is allotted a scaling-up factor if it is in the approved (i.e. priority) lines, and a scaling-down factor if in an unapproved line. The former is an incentive instrument, and the latter a fiscal instrument. The two together indicate the tax to be an Actuating Instrument. The Notional Investment is thus ascertained by aggregating for all investments scaled up or down. The notional investment is deducted from the notional income and the residue is the base for the tax, as Notional Consumption. On the slab to which it belongs the tax is assessed on the basis of a schedule constructed upon the principle of progressively progressive rise for higher and higher consumption brackets. In this there is no constraint of a hundred per cent maximum marginal tax and tax rates may be many hundred per cent. The tax assessed gets a rebate according to a schedule, if payment is made in terms of essential commodities or shares of firms within the concentration.

139. The person who acts according to the priorities of developments, who earns aright and invests aright, and who consumes little, receives the favour of the tax authorities and pays little tax. He has already paid his dues to the nation in helping to build up the economy in priority lines when all the market forces are inducing the individuals to deviate from these lines. The Fiscal Policy is attuned to steering clear the barge of the optimum economy through the great storm of market forces which threaten to overwhelm in any moment. But if the correct instrument is followed, the ship will go across unscathed as properly designed and piloted wooden sailing boats go across even the roaring forties. At the moment we are engaged in crossing the troubled waters of market forces and desires of the higher income groups, but have no sails designed to help us, nor is the boat specially constructed for crossing the rough oceans of development.

140. The Income Tax System has, therefore, to be converted into Disparity-Tax System which administratively presents no great difficulty because it deals with only two or three

systematic schedules of approvals and disapprovals in place of the highly-complicated Income Tax Act which gives haphazard relief at scores of places.

141. The Wealth Tax has also to be converted into a Concentration Tax whereby firms owning more than, say, one crore of rupees capital would be subject to tax on their gross assets which are directly or indirectly controlled by one firm. This tax may be paid in the form of converting assets, to the extent of amount of the tax assessed, into ownership of the Joint Sector with clear government management.

142. It is denied that the Private Sector has access to management skills which the government does not have. The question is not one of availability but of the administrative structure. The skills exist in the country and can be shifted to the Public Sector if there are incentives for it and disincentive for their moving to private firms at very much higher emoluments. This can easily be rectified by the Disparity and Concentration Taxes.

143. But the real question is that a development-oriented economy requires in the Public Sector methods of administration and recruitment and criteria of efficiency which are widely different from the ones used in the present-day bureaucratic system, and whether the reorganisation of the administrative system can easily be made. Unless this is done, attracting personnel from the private sector does not fulfil the needs of society. If they are to be employed in the Public Sector to make profits for the enterprise then they will straightway start looking for avenues like Jumbo Jets, Refrigerators, Tape-Recorders and TV sets, or raising the charges for the essential services or goods produced (as the Railways and Airlines do under similar pressures).

144. The Disparity Tax is to be made applicable to Agricultural Incomes also for there could be a case for giving preferential treatment for those engaged in agricultural production but their spending would be treated in the same manner as those engaged in other priority industries. The Tax is meant to apply to Hindu Joint Families and religious trusts also. It also would apply to firms so that the incentive to boost up expenditure (as is prevalent in the present tax based upon preference Revenue and Expenditure) is converted to a disincentive. Thus the inessential consumption of firms would also be curbed and so also their size. The large scale usually uses the higher degree of mechanisation

and yields a higher profit to wage ration. Irrespective of the degree of mechanisation, it also creates inequalities directly by the quantum of profits controlled by one group. The demand for luxuries comes basically from the inequalities of individuals and firms. This would be curbed at the source by achieving a more favourable distribution of income through production being encouraged by the Disparity-and-Concentration-Tax System in the smaller scales of production, specially the miniature scales.

145. This then is the surgeon's scalpel which we have been searching, as the fine instrument attuned to performing the delicate task attributed to it and not a crude instrument which harms more than it benefits. This can be in our hands through the slight appropriate administrative changes in tax administration necessary, with the tax authorities assisted by the Field Organisation to implement the objectives of the Plan. Compared to this which can be available to the government as an efficient allocative mechanism, we have nowadays, under the pressure of Classical Public Finance, the revenue yielding taxes which are Condenser Taxes. With these being relief upon by the government there is little allocative mechanism in its hands.

146. During the last twenty-two years of Planning we have been trying to achieve the goals of development and social justice with hardly any instruments in our hands for if deficit financing under a Balanced Allocation Ratio and a Magnifier Allocative Tax System are ruled out, the Actuating Instruments of Allocation pertaining to a Composite Economy are taken out of hands. Fiatory Instruments do not work in a State which is not a Hard State, for the dread of Atomic Bombs is ineffective for a rural economy. Paleoeconomics has provided Condenser Taxes and the dictum of curbing of government expenditure on essential production till revenue is raised through high-yielding tax varieties (or borrowing from the public obtained at anti-investment rates of interests).

147. Classical Public Finance has thus given toy arrows in the hands of the Government. The builders of economic democracy in our Government with their enthusiasm to achieve growth and social justice are thus left defenceless and unarmed to go into battle against poverty. Little wonder that spectacular achievements in the sphere of attaining our objectives of proper types of growth and social justice have been absent in our system of planning. The remedy is to shift to a sys-

tem of planning as pertinent to a Firm State in a Composite Economy functioning as an economic democracy where possession of wealth does not mean possession of purchasing power because of the penalties attached both the exercise of Consumer and Producer's sovereignty. The Plan regime cannot recognise any sovereignty except that of the State. The moment we are governed by the other sovereignties the Plan regime disappears, and it is only the outwards semblance of planning which remains with us. We must strive to put planning on a really firm footing in the country.

148. The problem of unemployment is not that of providing employment by itself but of the crisis in planning. This Minute is, therefore, written in order to reinforce the desire of the Committee to bring the basic issues facing national policies before the Government and Parliament. These refer to the framework itself and hence ought to relate to National Policy irrespective of differences of Political Parties.

Sd./-
(GAUTAM MATHUR)

NOTE OF DISSENT

by

DR. ASHOK MITRA

I seek the indulgence of any collegues to append this note to the Committee's Report. The Committee's various recommendations in the preceding pages are by and large a compendium, I am afraid, of conventional wisdom, and mainly stress the need for enlarging the scale of official endeavours in various directions for redressing the burden of unemployment and under-employment. The implicit assumption is that employment creation is essentially a function of (a) the allocation of investment funds, and (b) the quality of organisation. A number of suggestions have been offered so that significant improvements could take place with respect to these.

2. The problem, as I see it, is however not one of parametric values. Even before one can discuss the issue of allocation of investment funds, one must refer to the fact of paucity of investible resources. And if the rate of capital formation in the economy is lagging behind, the underlying reasons may have to be sought in the social and political structure itself; exhortations on the desirability—or, for that matter, prescriptions regarding the modality—of raising this rate may by

itself be of little avail. Similarly, if the pattern of expenditure in the Government sector has currently a particular orientation—for example, if provision for the maintenance of law and order is considered to be of greater importance than outlay for the relief of the unemployed—, any reordering of priorities cannot be effected in isolation of the basic political philosophy which informs the running of administration. If, despite the apparent soundness of schemes drawn up with the object of creating more jobs, at the operational level things go awry, it may be because of the political and social constraints that are at work; no amount of well-intentioned essay-writing would induce any additional purposiveness to the task of employment creation in case this cuts across the interests of entrenched groups.

3. It may therefore, not be altogether meaningful to indicate in any great detail those aspects of the Committee's recommendations in regard to which I have reservations. The problem is scarcely one of formulating an optimum frame of measures; it lies elsewhere—in the inertia and rigidities of the system. In what follows, I have contented myself by indicating the general directions along which pressures, I feel, have to be applied if the hopes and demands of the unemployed and under-employed masses are to be satisfied, even to a limited extent, in the near future.

4. Let me begin by referring to the demand voiced in certain quarters for the incorporation of a Constitutional guarantee to provide gainful work to all able-bodied citizens of the country. There is wide-spread political clamour for the right to work being enshrined in the directive principles of the Constitution and for full employment being declared explicitly as one of the major goals of public policy. Nothing more concrete is called for here beyond the passage of a Constitutional amendment; given the context, conceivably all political parties would support the measure. But, at the level of reality, the situation would perhaps remain much the same. The Constitution had directed that within a period of ten years from its commencement, children up to the age of 14 be provided with free and compulsory education. That stipulation has fallen by the wayside. A specific mention in the Constitution of the right to work and acknowledgement of full employment as one of the central objectives of public policy are unlikely to set any new rivers on fire. A dichotomy between official declarations and actual results obtained is by now taken for granted by nearly everybody, including, one suspects, Govern-

ment agencies themselves. The course of history in the post-Independence period leaves one with little doubt that the authorities are stirred to effective action on an issue only when the consequence of passivity is reckoned to be far-reaching for the polity. In the matter of creation of employment opportunities too, it is only the acute danger of continued drift is recognised that one could look forward to a major overhaul of official policies and actions. Till that threshold is reached, resolutions and declarations of intents are likely to be of scant significance, for attempts to reach the declared goals would conflict with the interests of those on whom the authorities lean for political support.

5. This is the major reason for my inability to work up an excess of enthusiasm towards attempts to derive precise quantitative measurements of underemployment and unemployment in the different sectors of the economy. It is hardly the case that once the backlog of unemployment for a sector or region is known with exactitude, remedial measures would immediately follow. Till as long as the structural problems have not been squarely faced, it would be tantamount to skill-fetishism to dilate upon the dimensional aspects of the phenomenon of unemployment. It is little solace to the deprived ones to be told that they are so many, or that the factors responsible for their plight are such and such, unless a genuine intent to correct the situation is evident in the appropriate quarters.

6. Besides, in the Indian milieu, the concept of employment itself has a certain vagueness about it. There are more or less standardised measures for assessing the degree of employment characterising a given unit of labour in an organised industrial sector. These however tend to get blurred as one moves away from the sphere of organised industry and enters the arena of rural employment, or employment in the so-called services sector. While it may be possible, under certain circumstances, to have well-defined concepts of wage employment, precision is necessarily missing from the various notions of self-employment. The concept of wage employment, it is certainly arguable, fast loses its immaculateness in the agricultural sector. A fair body of opinion will also assert that, for a large part of the Indian economy, the problem of employment creation basically hinges upon a wider diffusion of income opportunities. Provided the rate of economic growth is accelerated and, simultaneously, a range of reforms is pushed through to remove the institutional impediments standing in the way of a wider diffusion

of incomes, the problem of unemployment and under-employment, it would be maintained, would lose its sting.

7. At the level of formalism, one may still want to force the authorities into accepting the principle of full employment for each and all. However, given the as yet inchoate character of several segments of the Indian economy, there will be scope for disagreement on the empirical correlates of the expression. A mere reiteration of the goal is by itself therefore unlikely to help matters. From the operational point of view, the most substantive part of the task, I feel, is to analyse the principal socio-political factors inhibiting the growth of employment opportunities and to enumerate the specific measures through which these difficulties could be taken care of.

8. Whatever else may or may not be said the overriding cause for the slow rate of growth of employment opportunities is the slow rate of growth of the economy itself, during the past two-and-a-half decades, more particularly in the more recent years. This slackening pace of economic growth has been a pervasive phenomenon, embracing both agriculture and industry, and in turn affecting the other sectors. Irrespective of whether the choice of technology during the period was optimal or otherwise given the inherently skewed distribution of asset-holdings, the halting rate of general economic growth could not but have led to a sluggish rate of expansion in employment opportunities.

9. The ultimate solution to the problem of general stagnation is intensified capital formation. Diverse views may be held over the pattern of allocation of aggregate investment which could bring about the optimum balance between growth of output and growth of employment. But there can hardly be any controversy over the need to increase, across-the-board, the rate of capital formation. If external resources are not taken into account, the key task here is to raise the level of domestic savings. In this context, the possibility of coaxing additional savings through deficit financing may be discussed; some sympathy may also be expressed for the point of view that, since the authorities are not deterred from indulging in deficit financing to meet additional outlays for distinctly non-productive ventures, there should be no qualms felt in recommending similar modes of financing for projects which hold promise of increased output and job opportunities within a reasonable period. But this would be in the nature of

compounding a felony. Non-productive outlays would not be cut back merely because this Committee make certain recommendations. Under the circumstances, and given the administrative limitations and institutional biases, any attempt to force savings through credit creation is bound to give rise to indiscriminate price spiralling; this would tilt the structure of income discrimination further against the weaker sections and further shift the direction of private investments from productive to speculative ventures.

10. There can be ground for debate whether the bulk of fresh savings should be channelised to capital formation through the public sector or whether a significant portion be earmarked for private investment. This is however an issue of a second-order genre. It is the desirability of pushing up the national rate of savings which calls for prior acceptance. A major breakthrough needs to be achieved in agriculture, particularly that segment of it which is dominated by relatively prosperous farmers who produce for the market and enjoy surplus earnings. We now maintain in this country two dissociated regimes of savings and taxation. In the non-agricultural sector, savings perhaps exceed 15 per cent of income, and taxes, as a proportion of income, are as high as 25 per cent. In contrast, in the agricultural sector, the level of taxation is unlikely to be more than 7 per cent of income; and the rate of savings is still less. Even taking into account savings directly invested in agriculture, aggregate savings in the sector, there is little doubt, has lagged way behind potentialities. The inordinately uneven structure of land distribution and the high concentration of the benefits of the so-called New Technology in the top fractile groups among agricultural earners have, if anything, aggravated this trend. The classical model of growth postulates an initial generation of savings in the farm sector; it is these savings which are subsequently transferred elsewhere in the economy for purposes of capital formation. In view of the political circumstances obtaining, even if it is conceded that no net transfer of resources away from agriculture to the other sectors need take place here, one may still maintain that, in the overall, agriculture should at least be self-reliant and should not depend upon resources generated in the other sectors, as is currently the case. A major institutional reform therefore ought to be directed towards reorganising the structure of agriculture, including the fiscal apparatus pertaining to it, so as to ensure that a larger flow of savings is forced out of the affluent groups.

And it might indeed follow that once the affluent sections among the agricultural community are made to pay higher taxes, the rest of the economy too feel persuaded to move to a higher plateau of national endeavour.

11. One should have no illusion that voluntary measures by themselves would succeed in raising the level of farm savings, or in influencing the deployment of such savings along socially desirable directions. The instrumentality of taxation must necessarily play a major role here, and the underlying political issues have to be tackled. An incidental advantage stemming from more intensive agricultural taxation, as recognised by the Committee, is that it might force the pace of both land reforms and improvement in productivity, and thus reinforce the direct measures for employment creation. The increased burden of taxation could force the big landowners to dispose of some excess land at the margin, just as it might also induce greater productive activity where there is an urge to maintain the magnitude of net returns; in either event, employment is likely to expand.

12. The reluctance on the part of the authorities to add to the fiscal burden on the richer sections of the farming community has been made evident by a number of recent instances. Although several months have now elapsed since the Committee on Taxation of Agricultural Wealth and Income submitted its Report, not one meaningful step has been taken to process its recommendations. It is therefore futile to talk of a syndrome of higher savings leading to higher rates of capital formation leading to higher levels of economic activity generating higher levels of employment. The political pre-conditions for this are still lacking. An air of total unreality, I am afraid, thus attaches to the various proposals set forth in the Committee's Report seeking the deployment of substantially augmented funds for schemes intended to generate employment.

13. But even assuming that agriculture is cajoled into yielding a larger surplus, which in turn pushes up the level of savings in the other sectors of the economy, a host of other structural problems would still persist. Official endeavours for employment creation have concentrated on a familiar set of measures. These are the special and ad hoc schemes for providing short-term job opportunities for rural as well as urban youth, schemes for marginal farmers and agricultural labourers, and plans and projects for assisting small farmers. There are also such ancillary programmes as rural works schemes for chronically drought affected

areas and special schemes to provide employment to the educated unemployed. In addition, the banks and other financial institutions have been instructed to set up special proposals to advance credit for fostering self-employment. In the private industrial sphere, a number of fiscal and other incentives are available for promoting growth in the backward regions and in the small-scale sector, and which could be expected to have an impact on employment.

14. The broad thrust of the recommendations made by my colleagues is to enlarge the scale of operations of all such schemes, to have a vastly expanded base of outlays, to have, in other words, very much more of the same. Must not one take cognisance of the hard facts as they are? By now all of us should be well aware of what has been happening with the officially sponsored schemes over the years. Fiscal and monetary appropriations are scarcely enough. If the general milieu, the social structure, the political hinterland is each marked by a particular bias, the administration of the various employment schemes cannot but be affected by it. Funds intended for creating jobs for the landless and unemployed agricultural labourers have thus been diverted for other purposes, schemes for ameliorating the lot of the small farmers have lagged behind because basic inputs have not been made available, credit earmarked for impoverished cultivators or artisans at subsidised rates has remained undisbursed because of palpably impossible financial conditions imposed upon the latter, facilities reserved for small enterprises and backward regions have been diverted elsewhere on the basis of semantic pleas encouraged by the administrative hierarchy. A larger allotment of financial resources cannot alter the face of these realities. What is necessary is organisational overhaul at all levels and layers of the administration, an eradication of caste and class biases in the articulation of policies and programmes at the operational level, and a suspension of political predilections and animosities in the implementation of employment schemes. These changes are unlikely to come on their own. Where radical solutions are ruled out, one must think of instrumentalities within the existing polity which could force the authorities to move toward the direction of the institutional reforms referred to here.

1. It could be argued that I am under-emphasising the role of massive public works based on direct mobilisation of labour for creating additional employment opportunities. But our experience with such programmes, wherever attempted, has been uniformly disappointing. And the reasons for this failure are well known. The effective implementation of socially-oriented schemes of employment in the country depends upon the quality and dedication of rural leadership. Where the latter is given by sectarian biases, direct physical mobilisation of labour becomes an unrealisable goal, or becomes the alibi for diverting associated public fund for the furtherance of private purposes.

15. Schemes for creating additional employment opportunities, referred to above, fall on the whole into three clear-cut types: those supported through budgetary measures, those dependent upon accommodation from the banking system, and, finally those heavily leaning upon subsidy-induced private industrial initiative¹. True, total monetary provision under these schemes are at present hopelessly inadequate to meet the requirements of the situation. A major plank in employment policy, there can be little doubt, ought to be to enlarge the scale of investments and ensure that the pattern of investment is optimally tilted toward the goal of employment generation. Even the limited outlays proposed under the various employment schemes have however not been fully utilised in recent years. Two principal deficiencies in the implementation of these schemes stand out. First, the actual expenditure has fallen considerably short, sometimes by as much as 80 per cent, of the intended target; second, whatever activities are undertaken under the schemes are confined usually to the top fractile groups among the unemployed, that is, to those who are on or about the so called poverty line, and the abysmally poor tend to be left out in the cold. Both deficiencies indicate an organisational lacuna which is as much an outcome of straightforward inefficiency as, let me add, of the institutional and social biases affecting the system.

16. The Committee's emphasis on ameliorating the conditions of those who are below the 'poverty line' is merely paying homage to current fashion. What is of much greater relevance is a concerted effort to provide work and income to the most under-privileged groups among them, a task the significance of which has been altogether missed out.

17. Moreover, under the existing arrangements, no opportunity cost attaches to any failure to fulfil the target of creating additional job opportunities. As far as the Government's involvement through the fiscal system is concerned, no further accountability than accountability to the legislature can of course exist in the formal sense. Where the Government possesses a comfortable majority in Parliament, there can be no danger of any fall from grace even despite continuous failures to reach

the set goals. Year in and year out, the number of new jobs created, whether under the Crash Schemes or under the SFDA programme or under the Scheme for marginal farmers and agricultural labourers, has fallen frighteningly short of the target announced with fanfare at the beginning of the fiscal year. As the year has ended, the usual, routinised explanations have been proffered for the failures, and the matter has seemingly closed there. Even with goodwill and good intentions at the top of the political and administrative hierarchy, organisational and socio-political bottlenecks at other levels can indeed stifle efforts towards creation of new employment opportunities. The point at issue is whether anything concrete is being done to eliminate the difficulties standing in the way. The presence of goodwill in the 'right' quarters is hardly enough. Where intentions are not backed up by adequate institutional measures, failure is foredoomed, for failure remains built into the system.

18. A similar fate has overtaken schemes for employment generation in the banking sector. From time to time, the banks have been urged to develop the necessary organisation and skills for promoting self-employment schemes and for providing financial accommodation to the weaker sections. But the authorities have been reluctant to set specific, time-bound targets for the banks and have been equally reluctant to assign notional targets of achievement for individual areas or zones. Here too, there is no dearth of *ex post* commiseration over the fact that not enough jobs are being created, but not enough stress is laid on the parallel fact that, given their inherited structural biases and the particular political pressures currently being brought to bear upon them, it would be impossible for the banks to fulfil the prescribed objectives. The banks, in turn, are aware that no particular stigma would be attributed to them in case the indicated goals are not attained.

19. In the private industrial sector too, while the Government have rules and procedures for encouraging the movement of investment to backward regions and for the creation of labour-intensive activities, in effect little has been done. Each of the procedures and norms has been reduced to a ritual, and apparently there is no serious effort in any quarters to translate them into reality.

20. The unemployed and the under-employed are therefore left to their own devices. From time to time, they are exhorted to take recourse to 'self-employment' schemes, for which the

financial institutions and other official and quasi-official agencies are supposed to offer special facilities. It is seemingly nobody's particular responsibility if these facilities are not actually forthcoming, and if no perceptible improvement takes place in the unemployment situation. It is a rather breathtaking instance of the lack of social ethics when the onus of obtaining gainful employment is transferred to the unemployed themselves, and the authorities merely observe from the sidelines.

21. Cannot one think of a penal instrument which, even within the present social and political framework, would compel the authorities to approach the task of employment creation with a greater degree of earnestness than what has been discerned till now? In this connection, one may suggest for consideration the establishment of a Special Employment Fund to which compulsory contributions from the budget, the banking sector and the corporate sector could flow on a regular basis. Under the kind of arrangement I have in mind, at the beginning of each fiscal year, the Government would be enjoined to transfer the resources it intends to spend during the year on various schemes for employment creation to this Special Fund. Similarly, each bank or fiscal institution too would be asked to deposit with this Fund, at the beginning of the fiscal year, the financial resources which it was supposed to set aside for the promotion of new employment activities. Finally, a cess should be levied on organised industry at a rate, say, of two or three per cent of the average turnover of the preceding three years, and the proceeds of the cess transferred to the Employment Fund at the beginning of each fiscal year. In the course of the year, the Government agencies, the banks as well as organised industrial units would be able to draw from the Fund agreed sums, in accordance with specified norms, whenever projects involving fresh employment opportunities are being organised under their auspices. In case, however, there is a failure at the end of the year to reach the stipulated target by any of the agencies, the left-over resources would not revert to either the Government, or the banking sector, or the industrial units. These resources would stay with the Special Fund, which would use them to provide unemployment assistance to those who have registered themselves as unemployed in urban and rural areas, and who have remained involuntarily unemployed during the year. The necessary organisational underpinning would have to be carefully worked out for ensuring that unemployment assistance is provided in an equitable and effective manner

and with a minimum of leakage. If the organisation is not well-knit, there is a danger of resources from the Employment Fund being extensively misused. But it still depends upon whether the order of misuse of resources from the Fund is likely to be any greater than what it is at present under the various employment schemes. While the details of the organisation framework of the Employment Fund may wait, it seems reasonable to suggest that, at both the apex and the local levels, its administration should be reposed in the hands of a committee of which at least one-half of the membership would consist of elected representatives of the unemployed themselves.

22. The rationale of setting up such an Unemployment Fund is twofold. First, the awareness that a failure to fulfil the employment targets assigned to them would involve a measure of penalty could induce the corporate sector, the banks as well as Government agencies to a greater degree of effort to push through the necessary structural changes, the absence of which is largely responsible for the current failures. There is at present no cost attached to not carrying out the reforms, and the institutions and agencies are under no compulsion to change their attitudes and norms. Once, however, a monetary cost is chalked up against a failure to attain the targets, the banks, the Government agencies and the corporate units would be forced to initiate the necessary measures. If political factors stand in the way of implementing the called-for reforms, at least the opportunity cost of being swayed by a particular political consideration would be clearly spelled out in monetary terms.

23. The second point of attraction of a Central Employment Fund is that the social responsibility for the creation of employment opportunities would now be formally ascribed. If avenues for new job opportunities do not open up in an adequate manner, the fault for that does not lie with the unemployed, nor with the employed workers, but with those who take the basic economic decisions pertaining to the growth and distribution of incomes and assets in society. If, year in and year out, economic activities do not reach a level where at least some individuals are additionally absorbed in employment, under the existing arrangements, no responsibility for this failure attaches to anywhere, and everybody goes scot free. It is necessary that the Government and the richer sections of the community are made to admit their responsibility for looking after the unemployed and under-employed. At present,

the vast mass of the unemployed are a burden on their friends and relations, who mostly belong to the acutely poverty-ridden social groups. There is, even today, a certain social fund which takes care of the unemployed, but to which no contribution is made either by the Government or the affluent classes. The unemployed generally spring from the families of small farmers, small artisans and the impoverished urban middle class, it is from out of the income of the latter that the unemployed are currently being maintained. Equity demands that the responsibility for looking after the unemployed is more directly assigned to those who are in a position to bear it better. It is only when the Government as well as the upper echelons in society are forced to become aware that there is a cost involved in not pushing through the institutional and social reforms necessary for facilitating additional employment that they would take up the obligatory task of social engineering with greater seriousness. Till that day dawns, the problem of unemployment will remain with us.

24. One feels tempted to end this note by generalising the plea for a Central Employment Fund, to be supported by fiscal receipts, for providing assistance to those groups of registered unemployed to whom society is unable to provide work. There seems little point in arguing that such kinds of unemployment assistance, which may not immediately be matched by productive activity, spell danger for the economy. If society is unable to organise economic activities of the productive kind wherein the unemployed and under-employed could be gainfully absorbed, it would then be both cruel and immoral to deny them a minimum wherewithal for survival. Unemployment assistance at the rate of Rs. 500 per annum to, for example, 10 million individuals may of course amount to an annual outlay of Rs. 500 crores, but, then, the nation deploys more than three times as much for the maintenance of the defence services, which does not directly contribute to material output either. If ensuring the security of the nation is the primary consideration, it can indeed be argued that there could be no greater threat to the security of a nation than the existence of a massive magnitude, spilling into millions, of the unemployed and the under-employed.

NEW DELHI,
May 15, 1973.

(Sd.)
(ASHOK MITRA)

LIST OF ABBREVIATIONS

ARTEP	Asian Regional Team for Employment Promotion.
CSIR	Council of Scientific and Industrial Research
CSO	Central Statistical Organisation
CSRE	Crash Scheme for Rural Employment
DC (SSI)	Development Commissioner (Small Scale Industries).
DGE&T	Directorate General of Employment and Training.
DGS&D	Directorate General of Supplies and Disposals
EMI	Employment Market Information
ENCOS	Engineering Technicians Co-operative Society
GNP	Gross National Product
HEC	Heavy Engineering Corporation
HUDCO	Housing and Urban Development Corporation
IADP	Intensive Agricultural District Programme
IARI	Indian Agricultural Research Institute
IDBI -	Industrial Development Bank of India
ILO	International Labour Organisation
Industries (D & R) Act	Industries (Development and Regulation) Acty.
ITI	Industrial Training Institutes
KITCO	Kerala Industrial Technical Consultancy Organisation
LIC	Life Insurance Corporation of India
MFAL	Marginal Farmers and Agricultural Labour Agency
MRTP ACT	Monopolies and Restrictive Trade Practices Act
NCA	National Commission on Agriculture
NPC.	National Productivity Council
NRDC	National Research Development Corporation
NSS	National Sample Survey
NSSO	National Sample Survey Organisation
PEO	Programme Evaluation Organisation
PIREP	Pilot Intensive Rural Employment Project
RBI	Reserve Bank of India
REC.	Rural Electrification Corporation
RIP	Rural Industries Corporation
SFDA	Small Farmers Development Agency
SISI	Small Industry Service Institutes
SIICOM	State Industrial and Investment Corporation of Maharashtra
SSIDO	Small Scale Industries Development Organisation
UNICEF	United Nations Children's Emergency Fund
WFP	World Food Programme

APPENDICES

APPENDIX I

(Para 1.2)

MINISTRY OF LABOUR, EMPLOYMENT AND REHABILITATION

DEPARTMENT OF LABOUR AND EMPLOYMENT

(Directorate General of Employment and Training)

Resolution

New Delhi, the 19th December, 1970.

No. MP-10(110)/69: The problem of unemployment and under-employment in the country, in the rural and urban areas, has been a cause of serious concern to the Government in recent years. The emergence of considerable surpluses among the educated persons in general and technically qualified persons such as engineers and technicians in particular, has added a new dimension to the problem. The Government have now decided to set up a Committee to assess the extent of unemployment and under-employment and to suggest suitable remedial measures. The Committee will have the following composition :

Chairman

Shri B. Bhagavati, M.L.A., Assam.

Members

1. Shri Jyotirmoy Bosu, Member, Lok Sabha.
2. Shri M. Anandam, Member, Rajya Sabha.
3. Shri V. L. Gidwani, Employment Commissioner, Cabinet Secretariat (Deptt. of Cabinet Affairs).
4. Shri J. C. Mathur, Additional Secretary, Department of Agriculture.
5. Shri K. Balachandran, Additional Secretary, Department of Industrial Development.
6. Dr. Ashok Mitra, Chief Economic Adviser, Department of Economic Affairs.
7. Shri D. N. Banerjee, Special Officer and Ex-officio Secretary, Home Department, Government of West Bengal.
8. Shri N. Sundaram, Development Commissioner, Government of Madhya Pradesh.
9. Dr. Gautam Mathur, Professor, Osmania University.

Member-Secretary

10. Shri N. S. Pandey, I.A.S.

The following will be the terms of reference of the Committee :—

- (i) To assess the extent of unemployment and under-employment in all its aspects, taking into account the recommendations made by the Committee of Experts on Unemployment Estimates set up by the Planning Commis-

sion under the Chairmanship of Prof. M. L. Dantwala.

- (ii) To recommend the directions in which the programmes included in the Fourth Five-Year Plan could be made more employment oriented in their implementation, with due regard to their timely execution, economy and productivity and to the requirements of rapid economic development.
- (iii) To suggest suitable strategies for employment generation, both short-term and long-term, including technical, financial and fiscal measures, in respect of different sectors of the economy, taking into account the mobility of labour and the openings for employment and self-employment in the tertiary sector as a result of implementation of Plan programmes and various measures initiated by the Government for activating the economy.
- (iv) To suggest specific programmes for promoting productive employment and self-employment of the educated unemployed in general and the unemployed technical personnel such as engineers, technicians, etc., in particular and to suggest measures to rectify the imbalance between the out-turn of educated and technical persons on the one hand and the available employment opportunities on the other.
- (v) To suggest a suitable machinery at the Centre and State level for a continuous appraisal of the changing employment and manpower situation and assessment of long-term demand and supply.

The Committee is requested to submit its report within a period of one year.

4. The Committee will devise its own procedure. It may call for such information and take such evidence as it may consider necessary. The Ministries/Departments of Government of India will furnish such information and documents and render such assistance as may be required by the Committee.

5. The Government of India trust that the State Governments/Administrations of Union Territories, public and private sector undertakings, organisations of employers and workers and all other concerned organisations will extend to the Committee full cooperation and assistance.

ORDER

ORDERED that the Resolution be published in the GAZETTE of India, Part I, Section 1.

ORDERED that a copy of the Resolution be communicated to all Ministries/Departments of the Government of India, State Governments/Administrations of Union Territories and all other concerned.

Sd/-
(I.D.N. Sahi)
Additional Secretary.

N.B.

1. Shri B. C. Ganguli, Development Commissioner, West Bengal was nominated Member *vice* Shri D. N. Banerjee *vide* Resolution No. MP-(110)/69, dated the 25th January, 1971.

2. Subsequently Shri M. M. Kusari, Development Commissioner, West Bengal was nominated Member *vice* Shri B. C. Ganguli *vide* Resolution No. EEI/200(10)/71, dated the 24th May, 1971.

3. Later Shri J. C. Talukdar, Commissioner for Planning and Development and ex-officio Secretary to Government of West Bengal, Department of Development was nominated Member *vice* Shri M. M. Kusari *vide* Resolution No. EEI/200/10/71, dated 31-8-1971.

4. Shri B. R. Gupta, Additional Chief Secretary, West Bengal and ex-officio Development and Planning Commissioner was appointed Member in place of Shri J. C. Talukdar *vide* Resolution No. EEI-200(10)/71, dated the 23rd October, 1972.

5. The following three members of Parliament were appointed as additional members of the Committee :—

- | | |
|--|---|
| (i) Shri R. K. Sinha,
Member, Lok Sabha | } <i>vide</i> Resolutio-
No. EEI-200-10
71, dated
2-12-1971. |
| (ii) Shri J. S. Tilak,
Member, Rajya Sabha | |
| (iii) Shri Chandrajit Yadav
Member, Lok Sabha | . <i>vide</i> Resolution
No. EEI/200-
(10)/71, dated
23-12-1971. |

6. Shri M. Ramakrishnaya, Additional Secretary, Department of Agriculture, Government of India was appointed Member *vice* Shri J. C. Mathur *vide* Resolution No. EEI/200(10)/71, dated 23-12-1971.

7. Subsequently, Shri I. J. Naidu, Additional Secretary, Department of Agriculture, Government of India was nominated Member *vice* Shri M. Ramakrishnaya *vide* Resolution No. 200(10)-EEI, dated 15-12-1972.

8. Dr. Ashok Mitra was renominated Member of the Committee in his personal capacity with effect from 16th July, 1972 consequent on his relinquishing the post of Chief Economic Adviser, Department of Economic Affairs, Government of India *vide* Resolution No. EEI-200(10)/71, dated 21-8-1972.

9. Shri V. L. Gidwani was renominated a Member of the Committee in his personal capacity with

effect from 14th July, 1972 consequent on his relinquishing the post of Employment Commissioner, Cabinet Secretariat, *vide* Resolution No. EEI-200(10)/71, dated 21-8-1972.

10. Shri G. L. Shukla, Development Commissioner, Government of Madhya Pradesh was appointed Member *vice* Shri N. Sundaram *vide* Resolution No. EEI-200(10)/71, dated 29-9-1972.

11. Subsequently, Shri N. V. Krishnan, Development Commissioner, Government of Madhya Pradesh was appointed Member *vice* Shri G. L. Shukla, *vide* Resolution No. DGET-200/10/71-EEII, dated the 2nd March, 1973.

12. Dr. Manmohan Singh, Chief Economic Adviser, Department of Economic Affairs, Government of India was nominated Member of the Committee *vide* Resolution No. DGET-200/10/71-EEII, dated the 2nd March, 1973.

Composition of the Committee on Unemployment during the concluding stages of its work

Chairman

1. Shri B. Bhagavati, Member of Parliament, Rajya Sabha.

Members

2. Shri Jyotirmoy Bosu, Member of Parliament, Lok Sabha.

3. Shri M. Anandam, Member of Parliament, Rajya Sabha.

4. Shri K. Balachandran, Secretary, Ministry of Petroleum and Chemicals, Government of India.

5. Dr. Gautam Mathur, Professor, Osmania University, Hyderabad (A.P.).

6. Shri R. K. Sinha, Member of Parliament, Lok Sabha.

7. Shri J. S. Tilak, Member of Parliament, Rajya Sabha.

8. Shri Chandrajit Yadav, Member of Parliament, Lok Sabha.

9. Shri V. L. Gidwani, 6, Duplex Lane, New Delhi.

10. Dr. Ashok Mitra, 2/8, Sarat Bose Road, First Floor, Calcutta-20.

11. Shri B. R. Gupta, Additional Chief Secretary & Development Commissioner to the Government of West Bengal, Calcutta.

12. Shri I. J. Naidu, Additional Secretary, Department of Agriculture, Government of India.

13. Dr. Manmohan Singh, Chief Economic Adviser, Department of Economic Affairs, Ministry of Finance, Government of India.

14. Shri N. V. Krishnan, Development Commissioner, Government of Madhya Pradesh, Bhopal.

Member-Secretary

15. Shri N. S. Pandey.

APPENDIX II

(para 1.7)

No. ECU/27/71—Pt. I

GOVERNMENT OF INDIA

EXPERT COMMITTEE ON UNEMPLOYMENT

Vigyan Bhavan Annexe

New Delhi, May 26, 1971.

From

N. S. Pandey,
Member-Secretary,
Expert Committee on Unemployment.

Questionnaire I

(Note: For questions marked with an asterisk kindly see Annexure for Explanatory Notes).

To

Sir,

The Expert Committee on Unemployment which has been set up to assess the extent of unemployment and under-employment and to suggest suitable remedial measures issued recently a public notice inviting memoranda comments and suggestions. In the light of the views and suggestions contained in the communications received in response to the public notice and on the basis of a preliminary study of the items included in the terms of reference, a questionnaire has now been drawn up. A copy of this questionnaire (entitled Questionnaire I) is attached to this letter.

2. We are sure that your replies would be of immense help to us in our work. We are, therefore, taking the liberty of sending a copy of the questionnaire with a request that you may kindly favour us with replies to those questions which might be of interest to you.

3. It will be appreciated if ten copies of your replies to the Questionnaire are sent to us so as to reach us by 15th July, 1971. The envelopes containing the replies may please be superscribed "Replies to the Questionnaire".

Yours faithfully,
(Sd.) N. S. PANDEY,
Member-Secretary.

GOVERNMENT OF INDIA
EXPERT COMMITTEE ON UNEMPLOYMENT
Vigyan Bhavan Annexe
New Delhi-11

Please furnish the following particulars along with each copy of your reply to the questionnaire.

1. Name and address (Person/union/service association/organisation/State).
2. If person, please give occupation or profession.
3. Please indicate the region/area/district with reference to which your reply is generally furnished.

I. GENERAL

1. (a) What are the main causes for increase in the number of the unemployed in the country? Please indicate in order of priority the various factors to which such increase may be ascribed such as the following:

- (i) growth of population;
- (ii) slow progress and imbalance in economic growth and development;
- (iii) the lacuna in the planning, training and utilisation of the manpower resources of the country;
- (iv) the social and economic structure.

(b) Are there any peculiar features/special circumstances which are affecting the employment position in a particular segment of the population or in particular regions or areas of the country? In your area particularly are there any sections which are in a special way affected by unemployment? If so, please specify these sections.

2. It is stated that the substantial increase in gross national product or in the agricultural or industrial production has not benefited the weakest and the poorest sections of the community; it has on the other hand, resulted in high incomes and job opportunities for a limited number of persons or for specified groups or sections who are placed in a more advantageous position. This indicates, *prima facie*, that the increase in the job/employment opportunities has not been adequate. Are there any aspects of the financial, fiscal and economic policies adopted which have been responsible for such a situation?

3. Do you think that there should be a national policy on employment? What should be the main features of such a policy, if any?

4. It has been stated that rapid economic development of the country and greater industrialisation will *ipso facto* create more job opportunities, will have a snowballing effect on employment opportunities, and will bring about substantial improve-

ment in the employment situation without any special measures specifically directed towards the creation of employment being taken. Do you agree with this view? Please state your reasons. If you agree, what would be your suggestions for accelerating the tempo of economic growth and industrialisation of the country for dealing with unemployment within a specified period?

5. It is stated that over the last several Plans certain priorities and norms of allocation of resources between the different sectors have been adopted which have been responsible for inadequate growth of employment opportunities, e.g., greater emphasis on basic and heavy industries (which involve the over-stimulation of capital-intensive and labour saving technology) as opposed to small scale industry and agriculture. To what extent do you agree?

6. Do you think that a great deal of unemployment in the rural sector has been due to the past neglect of agriculture including poor investment and backward technology in agriculture as also the neglect of agro-industries, small scale industries, etc. and due to other sectors e.g. the industrial and service sectors, not having registered sufficiently fast growth?

7. Do you think that our present educational system has something to do with the absence of aptitude for manual work or work involving soiling the hand?

8. Are the present social norms, standards and the existing milieu among the factors responsible for the present increase in the educated unemployed? If so, please state corrective measure that should be taken to tackle these factors.

9. Have you any other suggestions or observations of a general nature to make in relation to the problem of unemployment?

II. UNEMPLOYMENT/UNDER-EMPLOYMENT

10. To measure the size of the problem of unemployment quantitatively it is essential to adopt certain criteria for identifying 'employed', 'under-employed' and 'unemployed' persons in Indian conditions. In this connection, please indicate your views regarding the following points:

(a) For counting a person as 'employed' what should be the criteria with reference to the following aspects:

- (i) Time spent in gainful activity during a specific period of time.
- (ii) Minimum earnings.

(b) For identifying a person as 'under-employed' (which term includes a person in seasonal employment or one who is fractionally unemployed) what should be the criteria with regard to the following aspects:

- (i) Number of days worked during a specified period.
- (ii) Intensity of work.
- (iii) Earnings.

(c) What should be the criteria for classifying a person as 'unemployed' having regard to the following aspects:

- (i) Minimum age.

- (ii) Evidence of non-participation in economic activity and of actively seeking full-time work.

III. FOURTH PLAN PROGRAMMES— RESHAPING OF

11. (a) What changes in the Fourth Plan programmes should be undertaken in order to make them more employment-oriented? This should be stated with reference to various sectors of development and with reference to the main types of Plan schemes:

- (i) Schemes in the State Plans.
- (ii) Centrally sponsored schemes.
- (iii) Schemes in the Central Plan.

What would be your specific suggestion in respect of the variation in the outlays on them? In making your suggestions please also keep in view the short term employment generation potential of these schemes.

(b) Would your suggestions be different if the long term employment generation potential were to be kept in view? If so, in what respects?

12. In what respects could the implementation of the existing Fourth Plan programmes be made more employment-oriented with due regard to their timely execution, economy and productivity?

13. (a) Do you think that more investment in the various sectors of the Plan and greater mobilisation of institutional resources therefor, can create greater job opportunities? If so, what should be the order of this additional outlay and what will be the size of additional employment created thereby?

(b) In what respect can the Central Ministries assist the State Governments in formulating and implementing more employment-oriented schemes?

14. What changes in the priorities of the Plan Schemes and in the allocations of various sectors or heads of development, would you suggest in order to generate more employment? If as a result of such changes in allocations for various sectors, the overall size of the Plan is increased, how would you suggest the additional outlay should be found?

15. It has been suggested that a massive programme of construction in the rural areas including housing and other kinds of construction like roads, markets, godowns, etc. etc., including the manufacture of local building materials, like bricks, tiles, etc., an equally massive programme of housing in the urban areas and a programme of redevelopment in the metropolitan areas would generate considerable employment. What would be the size in physical terms of such a programme within the next five years? What are the impediments at present in the way of (i) construction activities in rural areas, (ii) a similar programme in urban areas, (iii) redevelopment activity in the metropolitan areas?

16. (a) What are the various factors in the order of their importance which stand in the way of large scale housing programme in the rural areas—(i) lack of finance; (ii) lack of building materials like bricks, cement, etc.; (iii) lack of suitable developed sites; (iv) other infrastructure facilities like water supply, drainage; (v) existing rules and procedures; and (vi) psychological or any other factors?

(b) What steps would you suggest for the removal of the impediments?

(c) If a sizeable programme of rural housing is to be undertaken, what would be the order of the funds required to finance such a scheme? What will be the sources of this Finance?

17. What other steps should be taken to encourage the people in rural areas and small towns to undertake housing on a large scale? What will be your suggestions in respect of your own area?

*18. Will a massive programme of the construction of roads and the improvement of rural communications including market and feeder roads generate considerable productive employment in the rural area? In this connection certain objectives of public policy have been suggested, e.g., to bring every village in a developed and agricultural area within 6.4 Kms. (four miles) of metalled road and 2.5 Kms. (1.5 miles) of any road. The targets for the villages in semi-developed areas and those in undeveloped and uncultivated areas are lower still, i.e. within 13 Kms. (8 miles) and 19 Kms. (12 miles) of a metalled road respectively. In this connection, what criteria should be adopted for the selection of the villages in developed areas which could be brought within 2.5 Kms. (1.5 miles) of any road within, say, the next five years. Further, should there be any lowering of the maximum distance from any road in respect of the villages (i) in semi-developed areas and (ii) undeveloped and uncultivable areas within the next five years? If so, what should be the targets therefor?

19. What would be the size in physical and financial terms of the programme required for achieving the targets mentioned in the preceding question? Do you think that part of the finances required should be provided by the financial institutions and, if so, what part? Should there be greater contribution by the rural bodies like the panchayats by (i) increasing the existing taxes, (ii) the levy of toll or octroi duties, (iii) compulsory levy on the areas served?

20. (a) Will an accelerated programme of rural electrification create employment opportunities of considerable size in the rural areas? What should be the size of the programme during the next five years and the outlay required for its execution?

(b) What would be your suggestions for financing such a programme?

21. Within what period of time should we aim at electrifying all the villages in the country? What would be the order of investment required for this purpose and how are the necessary resources to be found?

2. Please state in order of priority the employment potential in the rural areas of the following programmes:—(i) water supply schemes; (ii) the improvement of social services; (iii) the development of transport facilities for obtaining the optimum use of feeder and market roads and for the haulage of products of agriculture as well as of agro-processing industries. What should be the size of the programme and the financial outlay involved in these programmes during the next five years?

23. Do you think that a coordinated programme of road construction drinking water supply and

electrification in the rural areas which are essential parts of the infrastructure facilities should be undertaken in those areas where these facilities are lacking?

IV. STRATEGIES FOR EMPLOYMENT GENERATION—MEASURES FINANCIAL, FISCAL, TECHNICAL ETC.

A. FINANCIAL AND OTHER ASSISTANCE

24. (a) The absence of adequate financial assistance and credit facilities to the self-employed including the educated unemployed desiring to become self-employed is stated to be one of the main handicaps in the way of such persons becoming self-employed. Are the existing facilities of loans, advances and commercial credit adequate? Is the allocation of greater resources from nationalised banks and other financial institutions called for for this class of persons? Have the present policies and programmes of the nationalised banks etc. met adequately the current needs of such persons?

(b) Do you think that the criteria of credit worthiness and the past practices, traditions and attitudes of minds stand in the way of providing loans or credit facilities on an adequate scale to this class? What are, in your opinion, the main factors, in the order of importance, responsible for this state of affairs?

25. What steps should be taken in the matter by

(1) the nationalised banks and financial institutions;

(2) the other commercial banks and agencies like co-operative banks, etc.;

(3) the various governments—Central and State?

26. Do you think that any of the provisions of the enactments relating to the banking institutions, namely, the Reserve Bank of India Act, the State Bank of India Act, the Banking Companies Act, etc., require to be changed with a view to liberalising credit facilities? If so, what would be your specific suggestions regarding the changes to be made?

27. (a) Please suggest specific schemes for which financial assistance in the shape of loans etc. may be given to unemployed persons desiring to become self-employed.

(b) If more loans are given to the unemployed youths for schemes of self-employment, what steps would you suggest for ensuring proper utilisation of the funds?

28. Do you think that any special programmes or schemes of assistance are needed to enable the rural youth, particularly the drop-outs from the schools, to be employed as wage earners? If so, what are your suggestions in respect of the programmes as well as the organisation needed for it?

29. What additional facilities in the following spheres should be provided to the technical personnel to enable them to become self-employed or to take up occupations involving manual work:—

(i) Financial assistance, credit facilities;

(ii) Availability of raw materials;

- (iii) Marketing facilities;
- (iv) Production facilities including testing and quality control, etc.
- (v) Developed sites/plots/industrial estates, etc;
- (vi) Technical guidance.

B. INDUSTRIES

30. Would you suggest any changes in (i) the present policies and procedures in regard to industrial licensing and (ii) the other provisions of the Industries (Development and Regulation) Act (particularly those relating to substantial expansion, the production of new articles, etc.) with a view to accelerating the growth of industry and increasing the employment potential?

31. It is stated that the existing licensing policies have tended to concentrate economic power in a few industrial houses and families and have accelerated the growth of monopolies which has affected the expansion of employment opportunities. Do you suggest any changes in the Monopolies and Restrictive Trade Practices Act, with a view to expansion of employment?

*32. Do you think that the recent modifications in the industrial policy have given enough incentives for more industries being set up or for their being set up in industrially backward and undeveloped regions? What more incentives or inducements should be given for the setting up of industries in such areas for the wider diffusion of industrialisation?

*33. With a view to removing regional imbalances the Planning Commission have prepared, in consultation with the Ministries concerned, a list of industrially backward districts which qualify for concessional finance from the financial institutions. They have also prepared another list of industrially backward districts and areas which qualify for Central subsidy amounting to 1/10th of the fixed capital investment of new industrial units. Have you any comments or suggestions to make in this regard?

34. Do you think that any changes are necessary in other policy measures or the legislative enactments or rules relating to industrial development, e.g., the Industrial Policy Resolution of 1956, the Companies Act, the Capital Issues (Control) Act, etc., and/or the procedures under them with a view to fostering faster industrial growth?

35. Do you think that the present list of industries reserved for the small sector is adequate? Should the list be expanded? If so, in what respects?

36. Do you think that the present facilities/incentives for the growth of small scale industries are adequate? If not, in what respect should these be liberalised?

37. Among the various factors inhibiting the growth of small scale industries are stated to be (1) lack of finance, (2) lack of raw materials, (3) lack of developed plots/industrial estates, (4) lack of production and marketing facilities, etc. What measures should be undertaken in order to remove these impediments to foster the growth of the small sector?

38. Are the existing facilities for sale provided to the small scale sector, for example, price preference of 15% for purchase by the Central Government departments adequate? If not, what more facilities or incentives would you suggest for being given to the small scale sector in the matter of purchases by Government/public sector undertakings?

39. Should in your view, the financing facilities given for the small scale sector be extended and the terms and conditions of financial assistance liberalised? Do you suggest any changes in the organisational set-up or structure of institutions, both administrative and financial, in order to achieve this objective?

40. Do you think that existing financial institutions, banks etc. are adequately serving the needs of finance of the small scale industry? What measures for the greater flow of funds to this sector would you suggest?

41. (a) Is there, in your view, a need for establishing an apex financial institution like a Small scale Industries Finance Corporation? If so, please give reasons.

(b) Is there any need for the creation of a suitable agency at the regional/district level for providing assistance towards equity capital or capital for fixed investment for the small scale sector?

42. What measures should, in your view, be taken to deal with the existing deficiencies of goods produced by the small scale sector, like unevenness of quality, low standard of performance, lack of conformity to standards or specifications etc.? What measures should be taken to improve these including facilities and assistance for such units to improve their quality standards and marketability?

43. Do you think that measures should be taken to ensure that large scale industries obtain their requirements of components, spares, sub-assemblies and even assemblies from the small scale sector?

44. What distribution of the areas of production would you suggest between the large-scale sector and the small scale sector?

45. (a) In what respects are delays/difficulties being caused by the administrative methods and procedures at (1) the Centre (2) the State and (3) the district level? What steps should be taken to ensure speedy disposal of all matters relating to the small scale industry?

(b) Do you think that any special organisation is needed at the district or at lower levels for organising and promoting the marketing of products of rural industries including those of the unorganised sector like village industries, handicrafts, handloom etc.? Give an outline of the structure of such an organisation.

C. AGRICULTURE

46. (a) What measures would you suggest for providing employment to the landless labour, people with small holdings, and marginal farmers so as to make them viable in agriculture and allied occupations like animal husbandry, poultry, fisheries, etc.?

(b) What would be your specific suggestions for giving employment to such persons in the rural

areas in non-agricultural occupations, e.g., industries, transportation, construction, services, etc., either as self-employed persons or as workers?

47. It has been suggested that one way of giving gainful employment to such persons (i.e. those with uneconomic holdings or landless persons etc.) is to distribute the land becoming available after the enforcement of the legislation relating to ceilings. How far will this help, in your view, to solve the unemployment problem of such persons?

48. It has been suggested that the land reforms legislation of the States involving, *inter alia*, the abolition of intermediaries, ensuring the security of tenure, the prescription of ceilings and the consolidation of holdings contributes to higher employment potential in agriculture, through higher agricultural growth. What measures, if any, would you suggest for more effective enforcement of this legislation for achieving this objective?

49. (a) What has been the impact of the new agricultural technology on the rural employment, under-employment and the shift in the pattern of agricultural activities?

(b) Opportunities for additional employment from agriculture vary, depending on agro-climatic conditions, the availability of water, cropping patterns etc. in the context of the recent agricultural technology. What are, in your opinion, the steps necessary for accelerating this process and for increasing employment opportunities in both agricultural areas with assured irrigation and those in the rain-fed areas? What is the additional investment necessary for this purpose during the next five years?

50. (a) What has been the extent of additional employment created by the new agricultural technology (i) in the secondary sector and (ii) in the tertiary sector? What will, in your opinion, be the order of additional employment to be created by the extension of this technology in these sectors during the next five years? What other supporting measures should be taken by way of a faster growth of infrastructure in the rural areas, for instance, the provision of electricity, water, roads, transportation, etc. for securing the optimum results in these sectors?

(b) What economic and other incentives need to be provided for motivating the farmer to adopt new agricultural practices with a view to accelerating the growth in agriculture?

51. What would be your suggestions for generating employment in (i) dry farming, (ii) up-land farming, and (iii) farming in the hilly areas?

52. What kind of technology and machinery would be feasible for this country without affecting the quantum of employment in agriculture? What has been the impact of the growing use of agricultural machinery on the employment situation? Do you think that the more extensive use of tractors, harvesters, threshers, etc. should be restricted and only selective mechanisation permitted? What should be the nature of restrictions in areas with different labour supply situations?

53. Has the new agricultural technology by and large by-passed the weaker sections of the community in rural areas, viz. small farmers, marginal farmers, agricultural labourers and farmers in the un-

irrigated/drought-affected areas? If so, what practical measures for bringing the benefits of the new technology to such sections would you suggest?

*54. Government have undertaken a number of schemes with a view to alleviating the prevailing conditions of unemployment and under-employment in rural areas. Notable among these schemes are following:

- (1) Scheme in respect of Small Farmers Development Agencies (SFDA).
- (2) Scheme for Marginal Farmers and Agricultural Labourers (MFAL).
- (3) Schemes of dry farming under Integrated Dry-land Agricultural Development.
- (4) Agro-Service Centres.
- (5) Rural Works in chronically drought affected areas.
- (6) The Crash Programme for Rural Employment.

What are your views regarding their (i) coverage (ii) structure (iii) financial outlays (iv) the improvement in their implementation at the district and block levels and (v) their expansion and employment potential during the next five years? How should these programmes be integrated *inter se* as also with the general development programme of the area?

55. During the execution or implementation of the programmes mentioned in Question 54 a considerable amount of employment will be generated. The size of this employment will, however, decline in the post-execution/implementation stage and the extent of direct employment on the maintenance of these works will be limited. What remedial measures would you suggest for dealing with the situation which may arise?

56. There may be regions or areas in a State some of which are surplus in agricultural labour while in others such labour is in short supply. Does this phenomenon affect agricultural operations or productivity in agriculture? What remedial measures would you suggest? Will more inter-regional/inter-district migration of labour provide a solution to this? Should any steps be taken to encourage this?

57. (a) What other measures should, in your view, be taken for developing services like marketing, storage and other allied services like transportation so that the producer gets remunerative prices for his products without exploitation by intermediaries?

(b) In areas where the cooperative system is weak and ineffective, what remedial measures should be taken or organisational/structural changes made to improve the marketing of agricultural commodities, leading in its turn to better and more employment?

58. What is the scope for additional employment in rural areas through the development of animal husbandry, poultry and piggery, particularly for the benefit of the landless and backward classes?

59. What is the scope for additional employment in fisheries, both inland and marine? What type of steps are necessary to create employment potential in this field?

60. What is the scope for additional employment in forestry?

D. MISCELLANEOUS

61. Do you think that the present objective of the national Family Planning Programme to bring down the birth rate to 5 per thousand within next 8 to 10 years is adequate or should this programme be accelerated and intensified? What should, in your opinion, be the target and by what date should it be achieved?

62. Would you consider that any changes in the existing labour legislation including that relating to wages are necessary with a view to promoting employment expansion, removing disincentives to the employment of labour and discouraging the increasing use of labour saving equipment?

63. What are the industries or individual units in a particular industry where the installed capacity is not fully utilised for one reason or the other? What is the extent of such under-utilisation in such industries or these units? What practical measures would you suggest for better or fuller utilisation of the capacity so that more employment may be generated?

64. (a) Should overtime working be done away with/reduced in order to generate more employment?

(b) What are the other implications of doing away with/reducing overtime in industrial units, commercial establishments and in public utilities, public offices etc.?

65. Will it be more conducive to employment expansion as well as more economic and less time-consuming if instead of putting up new units/additional facilities, the existing units are made to work more shifts than at present? Are there other implications such as adverse effect on the health of workers, the payment of higher wages, the faster wear and tear of machinery etc. if multiple shift is resorted to on an extensive scale or is made obligatory in selected areas or industries?

66. Will a reduction in the average working hours of industries either by reducing the overtime or by cutting down the standard hours of work per week lead to an increase in the total quantum of employment? What would be your views with regard to the standard working week, having regard to the totality of circumstances?

67. It is stated that for more employment generation the pace of industrialisation will have to be accelerated which will require greater capital and current input requirements, for example, import of more industrial raw materials, intermediates, components and spares, the installation of more sophisticated machinery etc. This can be done by a sustained increase in the earning of more foreign exchange for which the exports, particularly of manufactured and finished goods would have to be steadily expanded, exportable surpluses created and an active policy of import substitution adopted. What practical steps should, in your view, be taken for a much faster growth and development of the country's exports?

68. Do you consider that in respect of export industries which are highly competitive in the international markets, the most modern technologies should be adopted in order to keep production cost in line? Will it be feasible to adopt two technologies side by side in the same industry, i.e., a

modern technology for the export sector and an intermediate technology for the units catering to the domestic market?

V. EDUCATED UNEMPLOYED

69. What, in your view, are the reasons for the problem of unemployment being so acute among the educated, and particularly among the technical personnel? What remedial measures would you suggest?

70. There is a certain imbalance at present between the supply of the educated and the technical personnel and the demand for them. What measures would you suggest for removing this?

71. (a) What programmes/facilities for training related as closely as possible to present and future employment opportunities should be provided at an early stage so as to discourage unnecessary drift towards universities and institutions of higher learning?

(b) Do you think that it will be desirable to adopt a rational system for selecting students for entry to (i) universities and institutions of higher learning; (ii) higher technical institutes and colleges like the IITs, engineering colleges, medical colleges, etc.; (iii) pre-university classes? What would be your specific suggestions in respect of such a system?

(c) Should the system mentioned above be applied uniformly or whether certain relaxations or flexibility should be allowed in its application to certain sections like (i) females, (ii) backward classes, and (iii) backward and undeveloped areas?

72. (a) What measures should, in your view, be adopted to step up the rate of adult literacy/primary education which have registered a slow growth?

(b) What should be the target of literacy within the next 10 years and what steps should be taken to achieve the target? What will be the scope for creating additional jobs thereby?

* (c) How much employment will be generated if free and compulsory education as laid down in the Directive Principles of the Constitution is introduced?

73. Is it correct that our educational system as a whole has too much academic and literary bias? What steps should be taken to make the system less academic and literary in bias so as to increase the employability of educated persons?

74. Please state whether in your opinion the public policy in regard to recruitment to public services should be changed with a view to removing the present emphasis on the possession of a university/technical degree for jobs for which such degree is not necessary.

75. Do you consider that if the present age of recruitment for entry to the services like subordinate/executive and clerical posts is lowered, the existing pressure on the universities/technical colleges will decrease with consequent beneficial effect on the number of the educated unemployed? If so, what are your specific suggestions?

EXPLANATORY NOTES

(The numbers given in the margin refer to the question numbers in Questionnaire I)

I. GENERAL

18. Rural Roads

A Road Development Plan (1961-1981) was framed by the Chief Engineers in order to meet the needs of the country for a period of 20 years from the commencement of the Third Five Year Plan and presented to the Government of India in 1958. It was observed in the Plan that the future road pattern of the country should give due attention not only to urban areas but also to rural areas. Since in rural areas, it will not be possible to serve every small village individually, it would be desirable to adopt a system of grouping villages, a minimum aggregate population of about 5 thousand being taken as a workable unit. The objective in this Plan was to bring every village:

- (i) in a developed and agricultural area within 4 miles of a metalled road and 1.5 miles of any road,
- (ii) in a semi-developed area within 8 miles of a metalled road and 3 miles of any road, and
- (iii) in an undeveloped and uncultivable area within 12 miles of a metalled road and 5 miles of any road.

2. The matter was reviewed by the Committee on Rural Roads (Ministry of Transport and Shipping, Government of India) in April, 1968. The Committee expressed a feeling of disappointment in respect of rural roads and observed that the network of rural roads should be much bigger than that of the rest of the higher types of roads. A developed country has a ratio of 10 to 1 for rural and other roads whereas semi-developed countries can have a ratio of 5 to 1. The Committee estimated that with the achievement of the targets shown in the Chief Engineers 20 years (1961-81) Plan, the country will have a ratio of 1.6 to 1. The Committee recommended that the development targets suggested by the Chief Engineers in their 20 year Plan should be followed and these targets be achieved by about 1989.

IV. STRATEGIES FOR EMPLOYMENT GENERATION

32. Industrial Policy

The recent modifications in the industrial licencing policy are contained in Government's Press Note of 18th February 1970 and Notifications dated 19th February, 1970 and 28th February, 1970 and subsequent orders, the salient features of which are as follows:—

- (i) There would be a list of 'core' industries consisting of basic, critical and strategic industries in the economy. Detailed industry plans will be prepared for these industries and essential inputs made available on a priority basis.
- (ii) Such of the industries in the 'core' list as are included in Schedule—A of the Industrial Policy Resolution, 1956 (as amended from time to time) will continue to be reserved for the public sector. In addition to the

76. (a) Do you think that an extensive programme of vocational guidance or career advice should be established or improved to provide advisory services and supporting technical services to the educated unemployed who are looking for job opportunities?

(b) Would you suggest planned programmes of vocational training to impart employable skills to the educated unemployed including in-plant training/upgrading of the existing training to qualify such persons for jobs of higher skill and responsibility?

(c) Would you suggest any special training programmes, in particular, for the rural youth, particularly school leavers with a view to increasing their employability or suitability for further training?

*77. Government have recently introduced a number of schemes for providing assistance/training to the educated unemployed and unemployed technical personnel:

- (1) The scheme of the Ministry of Industrial Development for training of technical personnel for entrepreneurship;
- (2) Apprenticeship Scheme of the Ministry of Labour;

Please give your assessment of the coverage and extent of the schemes and of their impact on the employment of such personnel. What suggestions would you make for the extension of their coverage and for more effective implementation thereof?

78. (a) What steps should be taken to encourage the technical and engineering graduates and diploma holders to go in for self-employment or to take up occupations involving manual work?

(b) Do you consider that any special programmes of training or upgrading of the existing training should be undertaken to qualify such persons with appropriate potential as entrepreneurs, managers, supervisors, etc.? If so, indicate the broad outlines of such schemes.

VI. MACHINERY AT THE CENTRAL AND STATE LEVELS

79. Does any machinery exist at the Central/State Government levels to watch constantly the situation and make appraisal of the changing pattern of employment and manpower and assessment of the long term perspective? What kind of organisation would you suggest (a) at the Central level (b) at the State level and (c) the regional and district level, if any?

80. What would be the outlines of the organisational structure of such machinery?

81. Is such a machinery necessary? What will be its functions and responsibilities? What measures of liaison with the existing employment agencies would you suggest?

82. The present employment agencies/exchanges are the responsibility of State Governments. What roles would you assign to the Central Government/State Governments respectively in the proposed machinery?

core sector, all new investment propositions of over Rs. 5 crores shall be deemed to be in the 'heavy investment' sector. Undertakings belonging to the Larger Industrial Houses, as defined in the report of the Industrial Licensing Policy Committee, together with foreign concerns and subsidiaries or branches of foreign companies, would be expected to participate in and contribute to the establishment of industries mainly in the core and heavy investment sectors, except for the industries reserved for the public sector, leaving the opportunities in the remaining sectors primarily to other classes of entrepreneurs.

- (iii) In the middle sector, involving investments ranging from Rs. 1 crore to 5 crores, licence applications of parties other than the Larger Industrial Houses shall be given special consideration and licences shall be issued liberally except where foreign exchange implications necessitate careful scrutiny. Licence applications from undertakings belonging to or controlled by the Larger Industrial Groups and foreign branches/subsidiaries, shall be considered for normal expansion, where such expansion is necessary for development of a minimum economic level and cost efficiency.
- (iv) The criteria for classification of undertakings belonging to the Larger Industrial Houses as evolved by the Industrial Licensing Policy Inquiry Committee and stated in para 2.16 of its report have been accepted.
- (v) The policy of reservation for the small scale sector (involving investment in machinery and equipment upto Rs. 7.5 lakhs) will be continued and the area of such reservation will be expanded.
- (vi) In respect of agro-industries, particularly units processing sugar cane, jute etc., preference will be given in licensing to the co-operative sector.
- (vii) The exemption limit from licensing provisions including licensing of new undertakings and substantial expansion of existing units has been raised from Rs. 25 lakhs to Rs. 1 crore in the case of undertakings or categories of undertakings which have existing assets of less than Rs. 5 crores and which (i) do not belong to the Larger Industrial Houses (ii) do not require more than Rs. 10 lakhs or more than 10 per cent by way of foreign exchange for import of machinery and equipment, whichever is less, and do not require foreign exchange except marginally for import of raw materials, components etc., and (iii) are not included in the category of dominant undertakings, as defined in the Monopolies and Restrictive Trade Practices Act.
- (viii) Government has recognised the need for an adequate orientation of licensing policy in order to step up export efforts.
- (ix) Public financial institutions will, as part of their financial assistance arrangements, exercise option for conversion of future loans and debentures either wholly or partly into equity within a specified period of time in respect of loans above a specified amount. As regards the past loans and debentures, the financial institution concerned will have

discretion to negotiate conversion in case of default.

- (x) The public sector will be substantially expanded beyond the fields included in the Industrial Policy Resolution, 1956. Public financial institutions will consider applications for financial assistance for projects to be set up in the public sector on the same terms as applicable to the private parties.

33. Industrially Backward Districts

The Planning Commission has, in consultation with the Ministries concerned, selected a number of districts (a) for concessional finance from financial institutions (which are given in Appendix I) and (b) for the 10 per cent outright grant of subsidy by the Centre as listed in Appendix II. The concessions given to the districts listed in Appendix I include:—

- (i) Lower interest rate of 7 per cent;
- (ii) Extension of the period for the repayment of the first instalment of the principal amount of the loan from the present 3 years to 5 years;
- (iii) Longer period of 15-20 years for the repayment of the loan as against 10 to 12 years normally stipulated;
- (iv) Reduction of the normal service charges by 50%;
- (v) Reduction of the margin of security by the Industrial Finance Corporation of India and the Industrial Credit and Investment Corporation of India to 30/35 per cent.

54. (1) Small Farmers Development Agencies Scheme

The Small landholders in the country form 52 per cent of the total rural households but only 19 per cent of the cropped area is comprised in small holdings. The benefits of the new agricultural technology have largely been availed of by the bigger farmers. Modern technology is, however, rendering even small farmers of 1-2 hectares economically viable. The Government of India have decided upon the establishment of specific projects for the benefit of the small but potentially viable farmers, with the object of making available to these farmers the inputs including credit to enable them to participate in the available technology, practise intensive agriculture and diversify their activities. The Fourth Plan provides for 46 pilot projects being set up in selected districts throughout the country. The project areas have been selected keeping in view the factors like:

- (i) adequate number of small but potentially viable farmers,
- (ii) infrastructure like cooperatives,
- (iii) irrigation potential, and
- (iv) compactness of area.

Each of these projects has a separate agency registered under the Societies Registration Act and functioning under the chairmanship of the Collector/Deputy Commissioner. The main function of the agency is to identify the small but potentially viable farmers in its area of operation. The agency would assist the participating farmers in getting the necessary credit, other inputs and services required by them. The agency will not be giving credit directly but will function as a catalyst and stimu-

late the flow of credit from various institutional agencies. For this purpose, it will provide a risk fund to the cooperative institutions. The agency would also assist the institutions concerned with the distribution of inputs marketing, processing and storage to enable them to build up adequate infrastructure for improving these facilities in the project areas. It will see that adequate number of custom service units are set up by agro-industries corporations and cooperatives and will also organise new cooperative societies. To enable the participants to avail of such services, the agency will provide subsidies at prescribed rates. Similar subsidies can also be given by the agency for investment in agriculture requiring heavy capital outlay as well as for setting up dairy and poultry units.

A sum of Rs. 67.5 crores has been provided in the Fourth Plan for these projects, roughly at the rate of Rs. 1.5 crores per project. It is expected that with various schemes for stimulating the development programmes in the project areas, an investment of about Rs. 200 to Rs. 275 crores would be generated in these areas.

54. (2) The Scheme for Marginal Farmers and Agricultural Labourers

This scheme has been devised to assist the marginal farmers and the landless agricultural labour in view of the very high priority accorded in the Fourth Plan to measures specifically designed to enable the weaker sections of the rural population to benefit from the economic development in the rural sector. Under the scheme 41 projects are being set up in selected districts throughout the country during the Fourth Plan period. In selecting the project areas a number of factors have been kept in view, for instance, predominance of agricultural labour and marginal farmers in the area, accessibility to an urban centre or consumers center, the existence of backward and tribal areas near forest/mining centres, the availability of infrastructure of institutional agencies like the cooperatives and the compactness of the area.

For each project, there will be a separate agency registered under the Registration of Societies Act under the chairmanship of the Collector/Deputy Commissioner. The scheme will cover marginal farmers having holdings of not more than one hectare and agricultural labourers having homestead and earning 50 per cent or more of their income from agricultural wages. In selecting the participants, efforts will be made to cover all those with holdings upto 1 acre first. These projects will cover about 20,000 families during the Fourth Plan period of which roughly two-thirds would be from the category of marginal farmers and the rest from agricultural labourers.

The task of the agency would *inter alia* be to (i) identify eligible marginal farmers and agricultural labourers and investigate their problems, (ii) formulate economic programmes for providing productive employment to the participants, and promote rural industries, (iii) evolve adequate institutional, financial and administrative arrangements for implementing various programmes, and (iv) to promote the creation of common facilities for production, processing, storage and marketing of products. The main characteristic of the project is that marginal farmers and agricultural labourers would be enabled to get institutional credit facilities for undertaking various economic activities. For this

purpose the agency will stimulate the flow of credit from various institutional credit agencies particularly the cooperatives. To encourage these institutions to give loans to this category of borrowers, the agency would provide grants in the shape of risk fund to the cooperatives. The agency would also assist the institutions concerned with distribution of inputs, marketing, processing and storage to enable them to build up adequate infrastructure for improving the facilities for the benefit of the participants. It would also ensure that adequate number of custom service units are set up by the Agro-Industries Corporations, Cooperatives etc., in the project area. In order to help the participants to obtain such custom services at cheaper rates the agency will give subsidy at a prescribed rate; besides a subsidy will also be available to the marginal farmers for capital investment in agriculture, animal husbandry, poultry etc.

On the average, a sum of Rs. 1 crore will be available for each project as grant from the Central Government.

54. (3) Schemes of Dry Farming under Integrated Dry Land Agricultural Development

In the context of spreading out agricultural development, the dry land farming areas are of great importance since there are about 128 districts accounting for nearly 60 million hectares or about one half of the total net area sown which have low to medium rainfall under 11.25 mm annually and very limited irrigation facilities. At present cropping in these areas yields poor returns and involves great instability due to uncertain rainfall and lack of irrigation facilities. The break-through in agriculture achieved in irrigated and/or assured rainfall areas needs to be extended to the dry areas by integrated development of dry land agriculture.

The main components of the research and development aspect of farming in an integrated manner are :

- (i) Intensive research at a number of centres by the Indian Council of Agricultural Research for evolving techniques which would help to give maximum returns from the available soil and moisture resources in the dry areas.
- (ii) Practical application of the available knowledge on soil and moisture conservation practices, cultivation of drought-tolerant and short duration varieties of crops, new techniques of fertilizer application including foliar spraying, adoption of plant protection measures etc.

This programme will be taken up in 24 projects in 12 States around the main and sub-research centres of the Indian Council of Agricultural Research. The programme (with a Plan provision of Rs. 20 crores) includes consolidation of holdings, soil conservation, land shaping and land development. Other measures included in the programme are improvement in tillage and soil management through deep ploughing, water-harvesting practices, addition of organic matter, soil analysis, introduction of new varieties, development of multiple cropping, popularisation of drought resistant crops and grasses, animal husbandry programmes etc.

These projects are to be taken up in compact areas of 8000 acres. In view of the special nature of the programme and weak economic standing of the farmers, subsidies are proposed to be given for

inputs and some other operations at least in the initial stage. Subsidies and/or loan will be given to meet the cost of new sprinkler irrigation and of operations like water harvesting and aerial spraying. A lumpsum provision of Rs. 3 lakhs per project consisting of Rs. 2 lakhs as loan and Rs. 1 lakh as grant has been provided for animal husbandry programme including pasture development. For other inputs like special varieties of seeds, pesticides, basal and deep application of fertilizers, subsidies on tapering basis will be available, while the balance will be advanced as short-term loans.

The cost of each project works out to Rs. 119 lakhs and while nine such projects were initiated during 1970-71, in subsequent years it is proposed to establish 24 projects per year.

54. (4) Agro-Service Centres

The scheme for the establishment of Agro-Service Centres provides for assistance to the unemployed graduates and diploma holders in Mechanical, Agricultural and Electrical Engineering and allied fields and to graduates in Agriculture and Science with experience in industry/agriculture for establishing workshops, organising agricultural machinery, repairing and hiring facilities and other technical services like supply of spare parts, inputs etc. etc. The objects of the scheme are:

- (i) to provide self-employment opportunities to technical personnel;
- (ii) to provide on-the-farm maintenance and repair facilities for agricultural machinery and implements;
- (iii) an easily accessible source of supply for spare parts, fuel oils, lubricants and other engineering stores; and
- (iv) supply of inputs such as fertilizers, pesticides etc.

2. The scheme of setting up Agro-Service Centres has been included for assistance under the programme of training and assistance to engineer entrepreneurs being implemented under the Ministry of Industrial Development. Special orientation training and in-service training for a period of 3 months will be provided with free board and lodging to those qualified personnel who are committed to set up workshops etc.

3. The investments for equipping these Centres will be made out of loans from the State Bank of India and other financial institutions which have liberalised credit terms for engineer-entrepreneurs. The scheme of assistance will also include the establishment of repair and maintenance workshops. In suitable cases, the entire investment, i.e., the owners' equity and working capital are eligible for loan assistance from the banks. A subsidy equal to the difference between the normal lending rate of the bank or the financial institution and 5 per cent, which is the maximum rate payable by the borrower initially under the scheme, will be given. The subsidy will be made available on all the loans by the State Bank of India, the State Finance Corporations, nationalised banks and other commercial banks. The State Government and the Agro-Industries Corporation would assist in the preparation of the schemes and their acceptance by the financial institutions for grant of loans.

4. Other assistance will include an over-riding priority by the Agro Industries Corporation in the

allotment of imported tractors and other agricultural machinery and the appointment of these Centres by the Agro-Industries Corporation as their agents for the sale of agricultural machinery and implements and also for the servicing of agricultural machinery. The State Government would promote the scheme by providing available accommodation in the industrial estates, common facility workshops, block development offices, Tehsil headquarters etc. at nominal hire charges.

5. Initially 20-30 Centres will be set up in each State. It is expected that about 5,000 Centres would be set up during the remaining years of the Fourth Plan.

54. (5) Rural Works Programme of Chronically Drought Affected Areas

This is a special programme with an outlay of Rs. 100 crores during the Fourth Five Year Plan period and was initiated during 1970. This programme is designed to deal with the problem of agricultural labour which is particularly acute in the drought affected areas where relief can be provided only by taking up a concerted programme of rural works with high employment potential and scope for increase in the productivity of land and labour. For implementation of this programme, 54 districts have been identified on the basis of objective criteria such as rainfall distribution, irrigation facilities, frequency of occurrence of drought etc. In these districts, planned action has been taken to formulate work schemes which would be labour intensive. These schemes will include:

- (i) Medium and minor irrigation projects.
- (ii) Soil Conservation and Afforestation.
- (iii) Village and District Roads.

2. The emphasis in the programme is on the construction of civil works of a permanent nature. For each selected district, a Master Plan has to be prepared keeping in view the objectives of the programme and potentials and needs of the local areas. All the schemes in the Master Plan would be integrated with the on-going development programmes and will be in addition to the efforts under the normal plan. Under the scheme for every Rs. 1 crore of expenditure under the programme, employment is expected to be provided in the relevant working season of the year for about 25 thousand to 30 thousand persons.

54. (6) Crash Programme for Rural Employment

The Crash Programme for Rural Employment is intended for the benefit of all the districts of the country and particularly the districts which are not covered under other schemes. The programme will remain in operation till the end of the Fourth Plan. This is a centrally sponsored scheme but is being implemented through the agency of State Governments and Union Territories. The cost of the scheme i.e. about Rs. 50 crores per annum will be met entirely by the Central Government.

2. The scheme has a two-fold purpose. First, each project should provide employment for 1 thousand persons on an average continuously over a working season of 10 months in a year in every district. The figure of one thousand persons is, however, not rigid and some flexibility is permitted.

Second, each project should produce works or assets of a durable character in accordance with local development plan.

3. The projects should employ as far as possible persons belonging to families where no adult member is employed. Where this is not feasible, persons should be selected for employment with due regard to the possibility of their finding alternative employment. The rate of wages for the persons employed in these projects shall be equal to the off-season rate for agricultural labour in the district and shall not, in any case, exceed Rs. 100 p.m. The projects are required essentially to be labour intensive like :

- (i) Road building;
- (ii) Reclamation and development of land;
- (iii) Drainage, embankments, etc.;
- (iv) Water Conservation and ground water re-charging;
- (v) Minor irrigation;
- (vi) Soil Conservation;
- (vii) Afforestation, and
- (viii) Special repairs which will make the existing works durable and more useful.

4. This list is, however, illustrative and any project that is labour-intensive can be undertaken subject only to the conditions that works or assets of a durable nature are produced and these are in consonance with the local development needs. The scheme also permits some expenditure on materials, equipment etc., with the condition that their cost should not exceed 25 per cent of the cost of labour. Under the scheme, the responsibility for the maintenance of works or assets will be that of the State Governments and Union Territories.

V. EDUCATED UNEMPLOYED

72. (c) Article 45 of the constitution of India lays down that

"The State shall endeavour to provide, within a period of ten years from the commencement of this constitution, for free and compulsory education for all children until they complete the age of fourteen years".

77. (1) The Scheme for the Training of and Assistance to Engineer Entrepreneurs (under the Ministry of Industrial Development)

A three months' training programme is provided under the scheme to technically qualified personnel to help them to set up new industries. In the training programme, emphasis is laid on the various practical aspects of the setting up and running of new industries including procedural matters connected with the establishment of such industries. The training programme is broadly designed for those who are committed to starting new industries and who would require some assistance in the formulation of their projects as well as an opportunity to see at first hand some of the existing industries in the particular field.

2. The training programme is normally open to engineering graduates and diploma holders, who are

for the time being without employment. In exceptional cases, science graduates with a minimum period of three years (with Physics or Chemistry as main subjects)/production experience in industry may be considered. Matriculates, however, will not be eligible for assistance under this scheme. The selection of trainees will be made by a Screening Committee at the State Level.

3. The training programme is so oriented as to enable the trainee to have the theoretical as well as practical aspects of industrial management. He has to prepare a feasibility report on his own project during the training programme, as a proof of the fact that he has successfully undergone the training programme.

4. The training programme will be undertaken at 12 Small Industries Service Institutes (SISIs), the five Indian Institutes of Technology (IITs), and two Proto-type Production-cum-Training Centres of the N.S.I.C. If necessary 4 more Centres can be opened.

FINANCIAL ASSISTANCE

5. Financial assistance will be made available only to those who have undergone the training. This assistance will be supplementary and will not supplant the normal financial assistance to be rendered by banks, the State Financial Corporations and other developmental agencies. No financial assistance will be provided in the form of equity participation under this scheme. The assistance will be in the form of a subsidy equivalent to the difference between the normal lending rate of the bank or financial institution and 5 per cent, the maximum rate payable by the borrower initially under the scheme. The period of subsidy shall be three years normally except in the areas declared as backward by the Planning Commission for the purpose of concessional finance where the period shall be 5 years. The subsidy will be made available on all the loans advanced by the State Bank of India, the State Financial Corporations, nationalised banks and other commercial banks.

6. The scheme is a Central one and is being implemented by the Central Government in cooperation with the State Governments. It is expected that about 2,000 engineer entrepreneurs will be trained every year and that by the end of the Fourth Plan Period, about 6,000 such persons would have been provided with assistance under the scheme.

77. (2) National Apprenticeship Scheme

Acute shortage of labour in the skilled categories and a plethora of it in the unskilled categories is felt in many industries. Hence, the importance of apprenticeship as a source of supply of skills to the industry. The Apprentices Act, 1961 imposes an obligation on all the employers in the specified industries to engage apprentices as per ratio prescribed in the designated trades. One hundred and ninety-five industries have so far been specified as covered under the Act while 54 trades relating to engineering and non-engineering industries have been specified as designated under the Act. More trades are designated as required to meet the demand for skilled labour in different industries.

2. The minimum educational qualifications for admission under the scheme vary for the different

trades. For some trades the standards are matriculation or equivalent with Mathematics and Physics whereas for some others they are two classes below Matriculation or equivalent. In the case of some trades they are even lower. A person male or female is qualified for being engaged as an apprentice if he is not less than 14 years of age and has the prescribed standards of physical fitness. Employers can recruit either freshers or passed-out trainees of Industrial Training Institutes (ITIs) as apprentices.

3. For 46 out of 54 trades the duration of training is 3 years. Some trades have, however, shorter or longer periods of training. Though the minimum rates of stipend are prescribed under the scheme, the employers are encouraged to pay higher stipends. Every apprentice who has completed the prescribed period of apprenticeship training can

appear for an all-India trade test which is held twice a year. Successful apprentices are granted the National Apprenticeship Certificate which has been recognized by the Central and the State Governments.

4. It is not obligatory on the part of employer to offer any employment to the apprentice nor is it obligatory on the part of apprentice to accept an employment under the employer on successful completion of training unless it is specifically provided in the contract of apprenticeship.

5. For the promotion and implementation of the programme, 4 regional apprenticeship headquarters have been established at Kanpur, Calcutta, Bombay and Madras. By the end of the Fourth Plan, it is expected that a target of 75,000 apprentices in position will be achieved.

APPENDIX I (See Explanatory Note on Question 33—Questionnaire I)

List of Industrially Backward Districts selected to qualify for concessional finance from the Financial Institutions (as on March 31, 1971).

STATE	DISTRICTS
1. Andhra Pradesh	Nalgonda, Medak, Mahbubnagar, Karimnagar, Warangal, Khammam, Chittoor, Anantapur, Kurnool and Nizamabad.
2. Assam	Goalpara, Cachar, Nowgong, Kamrup, Mikir Hills and Mizo Hills district
3. Bihar	Santhal Parganas, Bhagalpur, Palamau, Champaran, Saran, Darbhanga, Purnea, Muzaffarpur and Saharsa.
4. Gujarat	Panchamahals, Kutch, Amreli, Broach, Sabarkantha, Banaskantha, Bhavnagar, Mehsana and Surendranagar.
5. Haryana	Mohindergarh, Hissar and Jind.
6. Himachal Pradesh	Chamba, Kinnaur, Kangra, Kulu and Lahaul and Spiti.
7. Jammu & Kashmir	Srinagar, Anantnag, Baramula, Jammu, Kathua, Udhampur, Doda, Ladakh, Poonch and Rajouri.
8. Kerala	Alleppey, Trivandrum, Cannanore, Trichur and Malapuram.
9. Madhya Pradesh	Bastar, Mandla, Surguja, Seoni, Jhabua, Balaghat, Bilaspur, Sidhi, Betul, Raigarh, Raipur, Dhar, Tikamgarh, Rajgarh, Khargone, Shajapur, Shivpuri, Chindwara, Rewa, Dewas, Mandsaur, Chhatarpur, Guna, Datia, Morena, Vidisha, Narsimhapur, Raisen, Hoshangabad, Damoh, Bhind, and Sagar.
10. Maharashtra	Bhir, Osmanabad, Bhandara, Ratnagiri, Aurangabad, Yeotmal, Chanda, Dhulia, Buldhana, Nanded, Parbhani, Jalgaon and Colaba.
11. Meghalaya	Both the districts of United Khasi & Jaintia Hills and Garo Hills.
12. Mysore	Belgaum, Bidar, Bijapur, Dharwar, Gulbarga, Hassan, Mysore, North Kanara, Raichur, South Kanara and Tumkur.
13. Nagaland	Kohima, Mokochung and Tuensang.
14. Orissa	Bolangir, Mayurbhanj, Dhenkanal, Kalahandi, Balasore, Koenjhar, Koraput and Phulbani.
15. Punjab	Hoshiarpur, Bnatinda, Gurdaspur and Sangrur.
16. Rajasthan	Jalore, Banswara, Dungarpur, Nagpur, Churu, Alwar, Tonk, Udaipur, Jodhpur, Jhunjhunu, Sikar, Sirohi, Bhilwara, Jhalawar, Jaisalmer and Barmer.
17. Tamil Nadu	South Arcot, Thiruchirappalli, Madurai, Ramanathapuram, Kanyakumari, North Arcot, Thanjavur and Dharmapuri.

STATE

DISTRICTS

18. Uttar Pradesh Almorā, Azamgarh, Bahraich, Banda, Ballia, Badaun, Chamoli, Fatehpur, Garhwal, Ghazipur, Hamirpur, Hardoi, Pilibhit, Jalaun, Jaunpur, Jhansi, Mainpuri, Pithoragarh, Pratapgarh, Rae Bareli, Sultanpur, Tehri Garhwal, Unnao, Uttar Kashi, Barabanki, Basti, Bulandshar, Etah, Etawah, Shahjahanpur and Deoria.
19. West Bengal Purulia, Bankura, Midnapur, Darjeeling, Malda, Cooch Bihar, West Dinajpur and Murshidabad.

UNION TERRITORIES

1. Andaman & Nicobar Islands Entire area
2. Chandigarh Nil
3. Dadra & Nagar Haveli Entire area
4. Delhi Nil
5. Goa, Daman & Diu Entire area

APPENDIX II (See Explanatory Note on Question 33—Questionnaire I)

List of Industrially Backward Districts/Areas selected to qualify for Central Subsidy amounting to one-tenth of the fixed capital investment of new industrial units

(as on March 31, 1971)

STATE

DISTRICTS/AREAS

1. Andhra Pradesh *
2. Assam Goalpara and Mikir Hills.
3. Gujarat Panchmahal.
4. Bihar Darbhanga@
5. Haryana Mohindergarh.
6. Himachal Pradesh Kangra.
7. Jammu & Kashmir Srinagar and Jammu.
8. Kerala Alleppey.
9. Madhya Pradesh *
10. Maharashtra Ratnagiri.
11. Mysore *
12. Meghalaya United Khasi & Jaintia Hills and Garo Hills.
13. Nagaland Kohima and Mokokchung.
14. Orissa Kalahandi and Mayurbhanj.
15. Punjab Hoshiarpur.
16. Rajasthan *
17. Tamil Nadu *
18. Uttar Pradesh Ballia and Jhansi.
19. West Bengal Purulia.

UNION TERRITORIES

1. Andaman & Nicobar Islands
2. Dadra and Nagar Haveli
3. Goa, Daman and Diu
4. Laccadive, Minicoy and Amin-dive Islands
5. NEFA
6. Pondicherry
7. Tripura
8. Manipur The whole territory excluding the area within the municipal limits of the Capital.
- } Entire district excluding the area within the municipal limits of their capitals.

*Proposals under consideration.

@Proposals for another district under consideration.

GOVERNMENT OF INDIA
EXPERT COMMITTEE ON UNEMPLOYMENT
VIGYAN BHAVAN ANNEXE

New Delhi May, 26, 1971

From

N. S. Pandey,
Member-Secretary,
Expert Committee on Unemployment.

To

- (1) All Ministries/Departments of the Union Government.
- (2) All State Governments/Union Territories.

Sir,

As you may be aware, the Government of India have set up a high-powered Committee known as the Expert Committee on Unemployment to assess the extent of unemployment and under-employment and to suggest suitable remedial measures. On the basis of a preliminary study of some of the issues involved, the Committee has drawn up a questionnaire in order to elicit the views and comments of the Central Ministries/State Governments etc. A copy of this questionnaire (entitled Questionnaire II) is enclosed. The Committee would be most grateful if you would kindly reply to such questions in this questionnaire with which you may be concerned officially or in which you may have some interest.

2. The Committee has also drawn up another questionnaire (entitled Questionnaire I) which is addressed inter alia to individuals and bodies like trade unions, employers' organisations, chambers of commerce, universities, etc. A copy of this document is also enclosed. Some of the questions mentioned in this document may be of interest to you as well. We would request you kindly to reply to such of the questions as you may desire.

3. We realise that we are making demands on the valuable time of the Ministries/State Governments etc., but we are nevertheless venturing to make this request as their views and comments would be of great assistance to the Committee.

4. The Committee is required to work to a time-bound programme of work. We shall, therefore, be most grateful if your replies could be sent so as to reach us by 15th July, 1971.

Yours faithfully,
(Sd.) N. S. PANDEY,
Member-Secretary

GOVERNMENT OF INDIA
EXPERT COMMITTEE ON UNEMPLOYMENT
VIGYAN BHAVAN ANNEXE

New Delhi-11

Questionnaire II

(To be answered only by the Ministries of the Central Government and/or by State Governments)

1. (a) What is the total number of vacancies occurring annually in the Ministries/Departments/Organisations under the Government of India? Please indicate figures for the last five years

APPENDIX-II (Contd.)

(b) What proportion of these vacancies is due to (i) the normal superannuation, natural wastage, dropout, etc. of the personnel, and (ii) the increase in the number of posts.

2. (a) What is the total number of persons employed directly under the Central Government (including its subordinate, field organisation) as on 1st January, 1961 and 1st January 1971 respectively? Out of them, how many were employed as casual labour?

(b) What has been the rate of growth of employment under the Central Government over the last decade? Do you think that the rate of growth is tapering off? If so, what is the reason for it?

3. (a) What was the total employment under the various public sector/departmental undertakings engaged in industrial and commercial activities under the Central Government as (i) on 1st January 1961 and (ii) 1st January 1971 respectively? Out of them, how many were employed as casual or badli labour?

(b) What has been the rate of growth of employment in them during the last ten years?

4. (a) What is the total number of vacancies occurring annually under the State Government? Please indicate figures for the last five years.

(b) What proportion of these vacancies is due to (i) factors like normal superannuation, natural wastage, etc., (ii) the increase in the number of posts.

5. (a) What was the total number of persons employed directly under (1) State Government/the Local Bodies, (2) the commercial and industrial undertakings of State Governments either run as public companies or departmental undertakings as on 1st January 1961 and 1st January 1971 respectively? Out of them, how many were employed as casual/badli labour under each category?

(b) What has been the rate of growth of such employment?

6. What has been the rate of expansion of employment in the organised sector? Do you think that a labour intensive and/or an intermediate technology can be adopted with a view to generating more employment?

7. In what industries/lines of commercial/business activity is there scope for adopting a more labour intensive technology so as to create more avenues of employment?

8. If the rate of growth of employment under the Government is reduced, what other avenues would you suggest for the absorption of the personnel which would have normally joined public services? In what way can they be assisted to find other avocations or avenues of employment?

9. Can the rate of growth of absorption in the commercial and industrial undertakings in the public sector be increased? Would the adoption of more labour intensive/intermediate technologies help in this process?

10. (a) What amount in each State has been given as loan by nationalised banks for self-employed persons for (a) agriculture and farming, (b) trade and business (c) industry and (d) other occupations from the date of the nationalisation of banks upto 31-12-1970?

(b) Is there need for the allocation of greater resources from nationalised banks and other financial institutions for loans, advances, etc. to the self-employed sector? Have the present policies of the nationalised banks and financial institutions met adequately the credit needs of (i) the self-employed, (ii) the weaker sections and (iii) the unemployed? If not, what would be your suggestions?

11. (a) How many branches have been opened (i) by the nationalised banks since their nationalisation and (ii) by other commercial banks during the same period? The figures may be given State wise.

(b) What are the criteria laid down for the opening of new branches of banks in a particular area? Do you think that these criteria or the guidelines in respect of them need any modification with a view to generating more employment?

12. What changes in the Plan priorities or in the Plan schemes and in the allocations under various sectors or heads of development would you suggest in order to generate more employment? If, as a result of such changes in allocations for various sectors, the overall size of the Plan is increased, how should the additional outlay required be found? Should it be found, in your opinion, by (i) reducing the outlay on other less essential sectors, heads of development, etc., (ii) increased taxation, (iii) increased resource mobilisation like small savings, compulsory deposits, increased contribution to provident funds, larger public borrowings, etc., or (iv) diversion of further resources from nationalised banks/financial institutions?

13. What should be the respective contributions of (i) the Central Government, (ii) the State Governments, (iii) financial institutions and nationalised banks to this increased outlay?

14. (a) What is the size of the average land holding in the State? How many holdings are uneconomic and what proportion do they bear to the total number of holdings? What is the criteria adopted for treating a holding as uneconomic?

(b) What is the total number of persons in the State who are landless?

(c) Do you think that the problems of these two categories of the rural population, namely, people with uneconomic holdings and the landless labour call for any special treatment? What specific measures would you suggest for dealing with their problems during the next five years?

15. What would, in your view, be a feasible programme for providing additional employment opportunities in the next five years in the agricultural sector and what will be the order of investment required for this purpose? How is this investment to be financed?

16. What is the impact of the programmes referred to in Question 54 of Questionnaire I on the employment situation in the rural areas? What modifications, if any, would you suggest in their coverage, financial outlays etc. in order to make sizeable impact on the problem of unemployment and under-employment in rural areas?

17. What additional outlays under the following categories of programmes would you suggest for creating more employment opportunities in rural

areas? Please state your reply with reference to specific schemes and projects:—

- (i) Rural housing—construction of private houses, planning and resiting of villages, construction of other buildings like storage godowns, markets, public utilities minor irrigation works, etc.,
- (ii) Rural communication including market and feeder roads;
- (iii) Rural electrification;
- (iv) Small scale industries, industrial estates, new industrial centres etc.

18. Should the additional programmes to be taken up for employment generation be all Centrally sponsored schemes or should they be included in the State Plans? If in the latter category, what should be the respective shares of the State Governments/Central Government in the outlay on them?

19. The enlargement of the size of the Plan and the consequent increase in the Plan outlay is likely to require a massive national effort for the mobilisation of resources. In what ways could the States generate additional resources commensurate with the requirements of the situation?

20. It has been stated that any further enhancement of the total outlay of the Fourth Plan would stretch the resources of the country to a breaking point and would, to that extent, have unhealthy repercussions on the economy and also other reactions to which our democratic set-up could not remain insensitive. Do you agree? If so, how would you reconcile the requirements of a larger outlay on Plan programmes with the need of avoiding these repercussions and reactions?

21. What steps are being taken by the State Government to bring in industries in their State or in the industrially backward/undeveloped areas of the State? Are the current incentives and facilities adequate? If not, what further facilities would you suggest on the part of (i) the Central Government, (2) State Government?

22. Do any of the present policies of the State Governments require to be modified in order to foster an accelerated growth of industries in the State, particularly in respect of (1) sales tax, (2) octroi duties, (3) urban property taxes, (4) electricity/water charges, (5) acquisition of land, establishment of industrial estates, urbanised townships and other facilities, etc.? What modifications would you suggest, if any?

23. Are you satisfied with the criteria adopted for the identification of (i) industrially backward districts which would qualify for Central subsidy towards the fixed capital investment of new industrial units and (i) similar districts which would be eligible for concessional finance from the financial institutions? What are your specific suggestions if any, in the matter?

24. (a) What is your appreciation of the working of the Family Planning Programme in your State? What is your estimate of the number of live births having been prevented during the last five years ending 31st March, 1971?

(b) It has been stated that the country has been too much concerned with the methodology of birth control and not enough with effective management practices. What is your comment on this?

(c) With reference to Question No. 61 in Questionnaire I what further steps, both administrative and programmatic, should be taken to attain the objectives of the national Family Planning Programme during the next eight to ten years?

25. Should Governments (both Central & State) adopt, in your opinion, an active policy through the media of publicity and mass communication to bring about changes in the present social standards and value judgements in respect of manual work?

26. Should the entire educational system be vocationalised from the secondary stage onwards? What will be the order of the capital outlay required for providing the requisite machinery and other technological facilities for this purpose throughout the entire gamut of the secondary school system in the country? How are the requisite resources to be found?

27. (a) What has been the role of the Employment Exchanges and the employment services vis-à-vis the unemployment problem in your State? Have they in substance achieved the objectives with which they were set up? Please give your appreciation of their working.

(b) What measures, if any, would you suggest for improving their efficiency, effectiveness and purposiveness?

28. (a) What are the various programmes of vocational training currently under way under the State Government?

(b) What is the total number of persons trained under each of these schemes during the last five years? Please indicate the various trades, professions in which such persons have been employed. What is the number out of such persons who are still without employment?

(c) Do you think that a new direction/reorientation should be given to the various training programmes under the employment programme in order to impart new and higher skills and occupations suited to the changing employment patterns and make the training more closely related to job opportunities? If so please state your suggestions.

29. (a) Have the State Government launched any programmes specially designed for providing relief to the unemployed during the Third and Fourth Plan periods?

(b) What is the number of the unemployed persons absorbed by such programmes?

30. What is the area in the State which has got the benefit of assured irrigation and what percentage does it constitute of the entire cultivated area?

31. What is the average yield in the State of wheat and paddy in respect of (i) the areas with assured irrigation and (ii) in irrigated areas?

32. What is the total area under multiple cropping in the State and what percentage does it constitute of the total cultivated area?

33. What is the area in the State (i) directly under cultivation by the landholders or landowners and (ii) by tenants, sub-tenants, share-croppers, etc., respectively.

34. (a) What is the area of the Government wasteland in the State which is available for distribution?

(b) How much land has become available for distribution as a result of (i) the enforcement of the ceilings on land, and (ii) the Bhoodan movement?

(c) How many acres of land have been distributed to the landless and others in the State since the enforcement of ceilings under the legislation relating to land ceilings?

35. What percentage does the reserved forest land constitute of the total area of the State?

36. What is the total acreage in the State being at present cultivated by the use of tractors? What is the total number of tractors in use in the State and what is your estimate of the annual demand for tractors?

37. (a) How many villages have been electrified in the State upto now and what proportion do they bear to the total number of villages?

(b) What percentage of the total electric consumption in the State is utilised for (i) agricultural purposes and (ii) for industries?

38. What is the tariff rate of electricity in the State (i) for agricultural purposes and (ii) for industrial purposes? What is the principle underlying the fixing of such tariff rates?

39. What was the per capita consumption of electricity (i) in villages and (ii) in towns in the State for the year 1970 (or the latest period for which the figures may be available)? What was the corresponding figure for the years 1961 and 1966?

40. What is the per capita income and (ii) per capita consumer expenditure in the State? Please supply the information with reference to 1970 or the latest year for which the figures may be available.

41. What is the expenditure incurred by the State Government during the last five years (i) on schemes of small scale industries and (ii) on schemes of Khadi and village industries under the aegis of the Khadi and Village Industries Commission?

APPENDIX III
(Para 1.9)

Composition of the Working Groups/Panel set up by the Committee on Unemployment.

I Panel on the assessment of the extent of unemployment and under-employment.

Chairman

1. Dr. Ashok Mitra, Chief Economic Adviser, Department of Economic Affairs & Member of the Committee.

Member

2. Dr. Gautam Mathur, Professor, Osmania University, & Member of the Committee.

3. Shri A. Chandra Sekhar, Registrar General of India Ministry of Home Affairs, New Delhi

4. Shri S. C. Chaudhuri, Chief Executive Officer, National Sample Survey, Government of India, New Delhi

Secretary

5. Shri H. R. Sharma, Director (Statistics), Committee on Unemployment, New Delhi

II Working Group on Education

Chairman

1. Dr. L. S. Chandrakant, Educational Adviser (Tech), Ministry of Education and Youth Services, New Delhi

Member

2. Shri D. P. Nayar, Senior Specialist (Education), Planning Commission, New Delhi

3. Col. S. G. Pendse, Director of Training, DGE&T, New Delhi

4. Dr. P. K. Kelkar, Director, IIT, Bombay

5. Shri D. V. Narasimhan, Deputy Educational Adviser (Tech), Ministry of Education and Youth Services, New Delhi

6. Shri T. R. Doss, Director of Technical Education, Hyderabad (A.P.)

7. Shri K. N. Butani, Director, Institute of Applied Manpower Research, New Delhi

8. Shri J. Veeraraghavan, Director (Pilot Projects and Adult Education), Ministry of Education and Social Welfare, New Delhi

Secretary

9. Shri T. C. George, Deputy Director, Committee on Unemployment, New Delhi

III Working Group on Financial and Fiscal Measures

Chairman

1. Dr. D. T. Lakdawala, Director, Department of Economics, Bombay University, Bombay

Member

2. Shri T. S. Sankaran, Joint Secretary, Department of Labour & Employment, New Delhi

3. Shri Rajpal, Director, (Export Assistance), Ministry of Foreign Trade, New Delhi

4. Dr. R. M. Honavar, Additional Chief Economic Adviser, Ministry of Finance, Department of Economic Affairs, New Delhi

5. Dr. J. N. Sinha, Senior Fellow, Institute of Economic Growth, Delhi

6. Shri G. Ramanujam, General Secretary, Indian National Trade Union Congress, 17, Janpath, New Delhi

7. Dr. M. N. Goswami, Ex-Vice-Chancellor, Gauhati University, Gauhati

8. Dr. Y. K. Alagh, Director Sardar Patel Institute of Economic and Social Research, Sheth Mangaldas Marg, Ahmedabad

9. Dr. G. S. Bhalla, Professor of Economics, Punjab University, Chandigarh

10. Shri D. H. Pai Panandiker, Senior Assistant Secretary, Federation of Indian Chambers of Commerce and Industry, Federation House, New Delhi

11. Dr. M. Yadava Reddy, Reader, Department of Economics, Osmania University, Hyderabad-7

12. Dr. M. K. Rakshit, Professor of Economics, Presidency College, Calcutta-12

13. Dr. P. D. Ojha, Director, Economic Department of the Reserve Bank of India, Post Box No. 1036, Bombay-1

Secretary

14. Dr. V. Agnihotri, Director (Economics), Committee on Unemployment, New Delhi

IV Working Group on Agriculture

Chairman

1. Dr. K. Ramiyah, M.P. "Swathi", XIX Cross Road, Bangalore

Member

2. Shri M. K. Mukherji, Joint Secretary, Department of Agriculture, New Delhi

3. Shri Ram Saran, Economic & Statistical Adviser, Krishi Bhavan, New Delhi

4. Dr. Raj Krishna, Professor of Economics, Rajasthan University, Jaipur

5. Shri A. K. Dutt, Director of Agriculture, West Bengal, Calcutta

6. Shri K. K. Bhatnagar, Deputy Secretary (Manpower), Department of Agriculture, Krishi Bhavan, New Delhi

7. Dr. Nilakantha Rath, Indian School of Political Economy, Poona

Secretary

8. Miss F. K. Wadia, Joint Director Committee on Unemployment, New Delhi

V Working Group on Industries

Chairman

1. Shri A. G. Kulkarni, M.P. 86, Shahjahan Road, New Delhi

Member

2. Shri G. B. Navalkar, Federation of Association of Small-Scale Industries in India, New Delhi

3. Shri Vinay Shah, Chairman, National Alliance of Young Entrepreneurs, Alliance House, C-20/B, Green Park Extension, New Delhi

4. Shri K. Venkataraman, Director, Ministry of Industrial Development, New Delhi

5. Dr. Ram K. Vepa, Director, Ministry of Industrial Development, New Delhi

6. Shri K. L. Nanjappa, Development Commissioner, Small-Scale Industries, Ministry of Industrial Development, New Delhi

7. Shri Satya Pal, Chief, Industries Division, Planning Commission, New Delhi

8. Dr. C.V.S. Ratnam, Managing Director, National Research Development Corporation of India, 61, Ring Road, Lajpat Nagar III, New Delhi

9. Professor V. M. Dandekar Gokhale Institute of Politics and Economics, Poona-4

10. Dr. A. K. Ghosh, Economic Adviser, Ministry of Industrial Development, Udyog Bhavan, New Delhi

11. Shri P. Chentsal Rao, Joint Secretary-General, Federation of Indian Chambers of Commerce and Industry, Federation House, New Delhi

Secretary

12. Dr. V. Agnihotri, Director (Economics), Committee on Unemployment, New Delhi

VI Working Group on Plan

Chairman

1. Shri Arjun Arora, M.P., 90, Shahjahan Road, New Delhi

Member

2. Shri Raja Kulkarni, M.P., 19, Janpath, New Delhi

3. Shri M.K.K. Nayar, Joint Secretary, Planning Commission, New Delhi

4. Shri S. L. Kathuria, Chief Engineer (Roads), Ministry of Shipping & Transport, (Transport Wing), New Delhi

5. Shri P. K. Ramanujam, Director, Ministry of Irrigation and Power, New Delhi

6. Shri R. G. Gokhale, Director, National Buildings Organisation, Ministry of Works and Housing, New Delhi

7. Shri K. Ray, Scientist-in-Charge, Division for Scientific & Technical Personnel, CSIR, New Delhi

Secretary

8. Shri B. N. Nair, Director (Plan), Committee on Unemployment, New Delhi

APPENDIX IV
(para 1.10)

List of high dignitaries of the Central Government, Parliamentary Parties, Parliamentarians, Political leaders etc. with whom the Committee had discussion at New Delhi.

S. No.	Name	Date of meeting
1.	Shri V. V. Giri, President of India	12-12-1972
2.	Shri G. S. Pathak, Vice-President of India	6-12-1972
3.	Shrimati Indira Gandhi, Prime Minister	16-7-1971
4.	Shri Jagjivan Ram Minister of Defence	6-8-1971
5.	Shri C. Subramaniam, Minister of Planning	6-8-1971
6.	Shri Fakhruddin Ali Ahmed, Minister of Agriculture	3-9-1971
7.	Shri Raj Bhaadur, Minister of Parliamentary Affairs, Shipping and Transport	19-4-1972
8.	Shri Uma Shanker Dikshit, Minister of Works, Housing and Health and Family Planning	21-11-1972
9.	Dr. K. L. Rao, Minister of Irrigation and Power	17-1-1973
10.	Shri Mohan Dharia, Minister of State in the Ministry of Planning	19-7-1971
11.	Prof. S. Chakravarty, Member, Planning Commission	2-12-1972

Members of Parliament :

1.	Shri Darbara Singh, Congress, (Dy. Leader-Lok Sabha)	26-6-1971
2.	Shri Shashi Bhushan, Congress,	26-6-1971
3.	Shri Pitambar Das, Jan Sangh, (Leader-Lok Sabha)	17-7-1971
4.	Shri P. K. Deo, Swatantra, (Leader-Lok Sabha)	17-7-1971
5.	Shri Tridib Chaudhuri, Member, Lok Sabha	17-7-1971
6.	Shri A. K. Gopalan, (CP (M)). Leader-Lok Sabha)	20-7-1971
7.	Dr. G. S. Melkote, Telangana Praja Socialist (Leader-Lok Sabha)	20-7-1971
8.	Shri M. S. Gurupadaswamy, (Congress (O) Leader-Lok Sabha)	6-8-1971
9.	Shri S. N. Mishra, Congress (O) (Leader-Lok Sabha)	30-3-1972

APPENDIX V
(para 1.11)

List of the States visited by the Committee on Unemployment

Sl. No.	State	Period of visit
1	Kerala	17th to 20th August, 1971.
2	Andhra Pradesh	14th to 18th September, 1971.
3	Tamil Nadu	12th to 16th October, 1971.
4	Mysore	25th to 28th October, 1971.
5	West Bengal	8th to 11th November, 1971.
6	Delhi	17th & 18th April, 1972.
7	Haryana	8th and 9th May, 1972.
8	Maharashtra	14th to 17th June, 1972.
9	Gujarat	28th to 30th August, 1972.
10	Punjab	5th to 6th September, 1972.
11	Assam	22nd to 25th September, 1972.
12	Uttar Pradesh	28th to 30th September, 1972.
13	Jammu & Kashmir	18th October to 21st October, 1972.
14	Bihar	25th to 28th October, 1972.
15	Orissa	9th to 11th November, 1972.

APPENDIX VI
(para 1.12)

List of special studies alongwith the names of Institutions to whom entrusted

Sl. No.	Subject of Study	Name of the Institution	Date of sanction of Study	Date of submission of Report
1	Field study into the problem of unemployment in some selected urban and rural areas of West Bengal.	University of Calcutta, Calcutta, (Deptt. of Commerce)	11-2-72	21-10-72
2	Unemployment in certain selected rural and urban areas of Assam.	Dibrugarh University, Assam	14-3-72	6-1-73
3	Intensified study of the problem of unemployment and under-employment in specific urban and rural areas of Kerala.	University of Kerala, Trivandrum	14-3-72	Revised Report awaited
4	Study of impact of rural electrification and minor irrigation on rural unemployment.	Administrative Staff College, Hyderabad	14-3-72	8-1-73
5	Study of employment pattern of the post graduate students of University of Calcutta.	University of Calcutta, Calcutta. (Deptt. of Economics)	14-3-72	15-11-72
6	Study for appraisal of schemes of rural employment.	Administrative Staff College, Hyderabad	27-7-72	14-3-73
7	Study of employment and unemployment in selected areas of Assam.	Gauhati University, Gauhati.	28-11-72	12-3-73

APPENDIX VII

(Para 1.13)

Interim Report of the Committee on Unemployment on Some-Short Term Measures for Employment

CHAIRMAN

Phone

Off. 383255
Res. 372646

Government of India
Expert Committee on Unemployment
Vigyan Bhavan Annexe
NEW DELHI

D.O. No. 1/2/72-ECU (Adm)

12th February, 1972.

Dear Shri Khadilkarjee,

I am presenting herewith the Interim Report of the Committee on Unemployment on Some Short term Measures for Employment.

2. Some basic issues have come up for consideration by us both during our formal sittings while taking evidence and in our own discussions. Some of these relate to the necessity of a substantial restructuring of the Plan and its priorities, as also the fiscal and financial policies for tackling the problem of unemployment. Thus, it has been discussed as to how far employment creation should be linked with production of essential consumer goods, and to what extent the techniques to be adopted should have a high or low degree of mechanisation. Another important question which has been raised is as to the extent to which employment-oriented schemes would require resources raised by taxation or public borrowing, and whether some schemes could be financed from credit specially created for the purpose as they would be quick yielding and would result in development of essential infra-structure or production of consumer necessities. All these questions, along with other relevant issues, are being studied by the various Working Groups which the Committee has set up. While we are keen that these discussions should be finalised as early as possible, we shall be able to consider these issues adequately and formulate our views thereon only after the Working Group have completed their task. We have, therefore, thought it proper to defer the examination of these issues to our final report.

3. In the meanwhile, we have felt it necessary to submit this Interim Report so as to suggest some suitable measures which can have immediate effect and which would lead to greater production as well as generation of substantial employment in the short term, particularly in the rural areas. We have been impressed both by the magnitude of the problem of unemployment and the pressing and urgent need to suggest some remedial measures which could be taken during the next two years. We hope that these measures besides providing employment opportunities in the short term, would also have a multiplier effect and would generate further employment and promote rural development over a long term.

4. During the deliberations of the Committee we have received valuable assistance from our former colleague, Shri J. C. Mathur, who has also helped us in the preparation of the Interim Report. He has expressed his agreement with the recommendation made in the Report and would like to be associated with them, though formally he is not signing the Report as a Member of the Committee. I would like to take this opportunity of placing on record the Committee's appreciation of the valuable assistance rendered by Shri Mathur in its work.

With kindest regards,

Yours sincerely,

Sd.

(B. BHAGAVATI)

SHRI R. K. KHADILKAR,
Minister of Labour & Rehabilitation,
Shram Shakti Bhavan,
New Delhi.

INTERIM REPORT OF THE COMMITTEE ON UNEMPLOYMENT ON SOME SHORT-TERM MEASURES FOR EMPLOYMENT

INTRODUCTION

The Committee on Unemployment was set up by the Government of India with the Department of Labour and Employment Resolution No. MP-10 (110)/69 dated 19-12-1970 to assess the extent of unemployment and under-employment and to suggest remedial measures. A copy of the said Government Resolution is placed at Annexure I.

2. Though the Committee was constituted towards the end of 1970, it had to encounter a number of difficulties in the first few months in obtaining its basic requirements and facilities like suitable office accommodation and essential secretariat staff. However, shortly after the first meeting held on 11th January, 1971, public notices were issued inviting the views, comments and suggestions from individuals, organised bodies, associations, etc., on the unemployment problem in India and the ways and means of dealing with it. These notices were published in the leading national and regional newspapers of the country and were widely publicised by repetitive publication in the months of March, May and June, 1971. In response to these notices a large number of communications and memoranda (about 1,600) were received from individuals and organisations throughout the country. In May-June 1971, the Committee issued Questionnaires I and II. Questionnaire I was intended to elicit the views and comments on the various issues arising out of the terms of reference of the Committee from a wide cross-section of the community, including the political parties, trade unions,

chambers of commerce, employers' organisations, universities and from individuals having wide experience and knowledge about the problem. The second Questionnaire sought to elicit information and data on specified points from the Ministries/ other organisations of the Central Government and the State Governments, Administrations of Union Territories, etc. The response to these questionnaires has been encouraging and 400 replies have been received so far.

3. In order to undertake a study and examination of the various issues, the Committee constituted one Panel and five Working Groups composed of experts and knowledgeable persons from various walks of life, namely, the Central and State Governments, Universities, organised industries, trade unions, professions, etc. They will require some time to analyse the data and material submitted to them, complete their studies, formulate their proposals and submit their report to the Committee. The Committee's secretariat could commence functioning in full strength only in October 1971 when the research staff was made available. The work of the Study Groups, however, could start in earnest still later when the directors/other senior staff attached to the Working Groups were placed in position.

4. The Committee has had the benefit of discussions with the Prime Minister, the Union Ministers of Agriculture, Defence and Planning, the Minister of State for Planning and a number of leading parliamentarians. Moreover, in order to study the problem of individual States and to ascertain the views and obtain the suggestions and comments of the State Governments, leading persons and local organisations, it decided to pay visits to the State headquarters and some other important centres. It has so far visited Kerala, Andhra Pradesh, Tamil Nadu, Mysore and West Bengal between August and November 1971.

5. The material received in response to our requests as also the discussions with a large number of knowledgeable people, both at the Centre and in the States have thrown up in bold relief certain aspects of the problem. The predominant impression borne in upon us has been that unemployment is severe both in intensity and incidence in the rural as well as urban areas and among the educated as well as the uneducated persons; the problem is getting accentuated year by year, causing great hardship and suffering and generating a sense of frustration and resentment particularly among the educated unemployed. Quite apart from open unemployment, which is acute in certain areas, the incidence of under-employment involving both seasonal and insufficient employment is very high. The period of enforced total or partial idleness extends well over several months of the year for vast numbers of our rural population. We are greatly concerned at the magnitude of the problem and feel that there is pressing and urgent need for remedial measures.

The Present Trends

6. Pending the report of the Panel which is examining the extent of unemployment and under-employment, we have had a look at the employment exchange data despite their well known limitations. They indicate that unemployment has been increasing over the last few years at a disquieting pace. A statement showing the number of persons on the live register from December 1966 to June 1971 is at Annexure II. The total number of regis-

trants has increased from 2.62 million at the end of 1966 to 4.07 million at the end of 1970. The position in respect of educated persons is still more disturbing. The number of engineers including diploma holders registered a three-fold increase from about 23,000 at the end of 1966 to about 64,000 at the end of 1970, while the number of matriculates almost doubled from 6.19 lakhs to 11.01 lakhs. The latest figures available show that the total number of job-seekers has increased from 36.21 lakhs in June 1970 to 44.95 lakhs in June 1971, that is, a rise of about 24 per cent in a year.

7. Similarly in June 1971 out of the total number of Job-seekers *i.e.* 44.95 lakhs, as many as 20.53 lakhs were educated persons, *i.e.* matriculates and above, while the number of engineering degree and diploma holders was about 65,000. In the circumstances while awaiting the reports of our Working Groups, we have felt it necessary to suggest immediately some short term and quick yielding measures which should be undertaken to alleviate, to some extent, the widespread suffering and hardship caused by unemployment and under-employment.

THE EXISTING PROGRAMMES

8. We are aware that during the last three years, the Central Government have initiated a number of programmes to deal with the problem of unemployment of educated and technically qualified persons and weaker sections of the rural population. The schemes for educated and technical personnel include the special scheme for financial assistance to young entrepreneurs operated by the State Governments, the States Bank of India and other commercial banks the Scheme for training of engineers for entrepreneurship, etc. A special outlay of Rs. 25 crores has been provided in the Central Budget for 1971-72 for schemes to provide employment for educated unemployed and a number of schemes have been initiated under this programme. The programmes for the Small Farmers Development Agencies, the Marginal Farmers and Agricultural Labourers Agencies, the Rural Works Programme for Chronically Drought Affected Areas (now known as the Drought Prone Area Programme) and the Crash Scheme for Rural Employment are intended to assist the under-privileged classes among the rural population and to meet the special requirements of chronically drought prone areas. In the next few paras we are making a few observations on some of these programmes.

9. The SFDA and MFAL programmes (for which an outlay of Rs. 67.50 crores and Rs. 47.50 crores respectively has been provided for the Fourth Plan period) are intended mainly to assist the small and marginal farmers and agricultural labourers, by the provision of inputs, services and credit, to make the maximum productive use of their small holdings and to augment their incomes by supplementary occupations like horticulture, animal husbandry, poultry farming, etc. The main work of implementation of these two programmes on the ground has commenced only in 1971-72. Most of the earlier year (1970-71) was taken up in the preparatory work such as identification of the areas, formulation of guidelines, preparation of detailed project reports and setting up of the Agencies. These programmes are in the nature of pilot projects and are expected to provide experience, throw up problems and lead to improvement as they make progress and it is too early to assess their working or their effectiveness in the field.

10. The success of the SFDA and MFAL programmes depends to a large extent upon the arrangements made for the marketing of the produce of the supplementary occupations referred to above. Although the guidelines laid down for the implementation of the programmes have pointed out the need for arrangements regarding marketing of such produce, the Committee would like to reiterate the importance of ensuring that adequate arrangements are in fact made for this purpose since most of these products like milk, eggs and meat, are perishable. We understand that the Government of Maharashtra propose to undertake a study for suggesting suitable type of organisation for the processing and marketing of dairy, poultry and piggery products of small farmers and agricultural labourers. In our view, it is desirable that similar studies be undertaken in other States also.

11. Further, some of the more vulnerable farmers, like share croppers and tenants without recorded rights in land, are facing difficulties in obtaining loans from financial institutions, due to their inability to provide sureties to the satisfaction of the banks, for the loans advanced to them. In view, however, of the pressing need to help these small farmers in supplementing their incomes through subsidiary occupations, the Committee feels that the SFDA and MFAL agencies should take practical steps to assist them. They should identify such tenants after local inquiries, taking care, where necessary to avoid the possibility of adverse effects on them. Later on they should take steps to persuade the banks to advance short-term and medium-term loans to them for cultivation as well as for undertaking occupations like dairying, fish or poultry farming and piggery. It may be necessary for the agencies not only to subsidise such loans but also to impress upon the financial institutions the need of not insisting on sureties from share-croppers and oral tenants.

12. The Crash Scheme for Rural Employment aims at providing employment for one thousand of the more needy persons in every district in the country. An outlay of Rs. 12.5 lakhs has been sanctioned for each district although additional allocations have been made in some States. The Committee feels that the provision of a fixed amount uniformly for each district, without taking into account the varying conditions in different districts, would not produce the desired impact on unemployment. The Committee suggests that the allocation for each district should be suitably refixed after taking into account population, state of agricultural development and other relevant factors. Further, we have observed that as operated at present, the benefits of the scheme are thinly spread throughout the district and its impact is, therefore, rather diffused. In our view, it is desirable to take up works of reasonable size in some selected parts of the district having regard to the severity of the problem.

13. We wish to emphasise that the success of the scheme depends on proper selection and efficient execution of works. It is necessary that the organisational arrangements should be strengthened and streamlined so that the works undertaken result in durable assets and no undue waste or diversion of funds takes place. The organisational arrangements would naturally depend on the local administrative set-up and the need to associate closely representatives of the people, different technical departments and others concerned. We consider

that sufficient attention should be paid to this aspect in order that the implementation of the scheme makes satisfactory progress.

14. Further, the scheme as at present conceived is not likely to throw sufficient light on the magnitude and nature of the problem in the rural areas and the size of resources needed for providing adequate employment for all persons seeking work. The Committee feels that it is necessary to undertake some pilot projects in small compact areas in selected districts. These projects should deal with all aspects of development and should progressively be able to provide employment in different economic pursuits to every person offering himself for work in that area. The projects should not concern themselves exclusively with agricultural development but with development in other sectors also. Such pilot projects should be undertaken as action-cum-study programmes so that the problems faced in their implementation under different conditions may be highlighted. The lessons and data made available from the would provide guidance for planning more comprehensive programmes of employment in future.

15. The Scheme for the setting up of agro-service centres for the training of entrepreneurs for off-farm maintenance and repair of agricultural machinery which was introduced in 1971-72 also has potential for providing employment/self-employment to engineering graduates and technicians in the rural areas. In view of this as also the stimulus it will provide for the new technology in agriculture, the Committee feels that the implementation of this scheme should be given a high priority. The Agro-Industries Corporations in the different States which supply inputs and agricultural machinery should set up service and repair centres in increasing numbers in the rural areas. These should serve both as catalysts for the extension of the new technology as well as for the creation of employment.

16. We have made a few observations on some of the existing programmes in the foregoing paragraphs. These programmes are of a special nature and are intended to provide additional employment and incomes to the weaker sections of the community. They are additional to the various programmes of development in the Fourth Five Year Plan which would also be generating employment and incomes of a sizeable order.

17. We feel that besides these additional programmes there is sufficient scope for accelerating and expanding some of the more labour-intensive programmes included in the Plan. In view of the pressing and urgent need for immediate measures to tackle this problem, we suggest that during the remaining two years of the Plan period, greater emphasis should be laid on the execution of some of the programmes included in the Plan which are more labour-intensive. These are :

1. Minor irrigation.
2. Rural electrification.
3. Construction of roads and inland water transport.
4. Programmes of rural housing.
5. Rural water supply.
6. Education.

Besides, we wish to suggest a few measures to promote productive employment for the educated unemployed or assist them to become self-employed. These are :

- (i) maximum utilisation of installed capacity in industry and reopening of closed units.
- (ii) promotion of productive employment for educated unemployed.

Further in order to provide some relief to the unemployed persons we are also suggesting the exemption of such persons from the payment of application fees.

PROGRAMMES OF CONSTRUCTION IN RURAL AREAS

18. As is well known much of the infra-structure in the rural area still remains to be developed and hence there is a vast scope for undertaking construction work, labour intensive in nature, on infra-structural projects like the development of transport and communication, dams, irrigation and electricity schemes, rural housing, etc. Such programme will provide scope for the employment of mainly unskilled and semi-skilled persons. A programme of construction of various types should, therefore, occupy a high place among the measures designed to create an immediate and direct impact on the problem of unemployment. This programme will help in improving the infrastructure necessary for rural development including industries and the diversification of rural occupations. Further it will provide essential amenities like water supply, housing, etc., in the rural life. Thus not only would such a programme bring relief in the immediate future but it would have a long term impact on employment generation in the rural areas. It will facilitate the development of markets and growth centres and thereby improve the quality of rural areas. In order to be able to make sufficient dent on the rural unemployment, however, the programme has to be multifaceted and comprehensive. It may also require some diversion of public investment from the urban to the rural areas. We propose to make some

comments on the first programmes mentioned in Para 17 ante, which should constitute an integral part of rural construction and on which we consider greater emphasis should be laid and more investment made in the immediate future.

MINOR IRRIGATION

19. The employment potential of minor irrigation is very large. Assured and controllable water supply through minor irrigation not only facilitates the intensification of cultivation by introducing multiple cropping but also enhances the employment of labour on the land. The farm management studies conducted by the Ministry of Agriculture in selected regions in the country have revealed a much larger utilisation of rural labour per hectare in irrigated areas and among those cultivators using high-yielding varieties of seeds than in the rest of the surveyed areas. These studies have also found that there is a much higher utilisation of human labour per hectare on small farms than on large-sized farms (Annexures III and IV).

20. For small farms, therefore, assured irrigation facilitates intensity of cultivation as well as generates additional employment. Minor irrigation programmes like the construction of dugwells and tanks would be a more feasible source of water supply for small farmers. As the bulk of the farmers in the rural areas have small sized holdings, the minor irrigation programmes would be the quickest way of developing the availability of water supply for them.

21. Apart from the employment generated on the farms, the amount of labour required in the construction of minor irrigation works itself is substantial. It is understood that an estimated investment of Rs. 260 crores per annum for minor irrigation (comprising investment through the Plan outlay, institutional finance, and the farmers' own investment under this programme) would have an employment potential of 328 million man-days of unskilled labour and 38.50 million man-days of skilled labour as indicated in the statement below :

Item	Total Investment per annum (Rupees in Crores)	Cost of Unskilled labour	Cost of Skilled labour	Potential for Employment (in million man-days)	
				Unskilled @Rs. 2.50 per man-day	Skilled @Rs. 7.50 per man-day
1	2	3	4	5	6
Dugwells	50.00	22.50	7.50	90.00	10.00
Improvement of dugwells	10.00	2.50	1.50	10.00	2.00
Pumpsets/Persian Wheels	65.00	9.75	6.50	39.00	8.6
Tubewells (Private and State)	80.00	16.00	8.00	64.00	10.00
Surface flow works	45.00	29.25	4.50	117.00	6.00
Lift Irrigation	10.00	2.00	1.00	8.00	1.30
TOTAL	260.00	82.00	29.00	328.00	38.50

Source : Ministry of Agriculture.

At the rate of roughly 300 man-days per year for each person, the construction work on minor irrigation schemes by themselves would generate employment for nearly one million unskilled labourers and 1.28 lakh skilled labourers.

22. The Plan outlay for minor irrigation programmes is of the order of Rs. 520 crores. The bulk of the expenditure was to be in the State sector as in the Central sector a provision of Rs. 8.50 crores only has been made. In addition, an investment of the order of about Rs. 650 crores was expected to be mobilised from institutional agencies including land development banks, central cooperative banks, commercial banks, the Agricultural Refinance Corporation, etc. It was also hoped that the cultivators themselves would invest an amount of Rs. 300 crores. The progress expected to be made in the first three years of the Plan is as follows :

	(Rupees in Crores)	
	1969-74	1969-72
	(Target)	(Anticipated Achievement)
Plan Outlay	520	295
Institutional Investment	650	380
Farmers' Contribution	300	120
Area covered (million hectares)	7.2	4.5

Source : Mid-Term Appraisal of the Fourth Five Year Plan, Planning Commission.

Further out of the anticipated Plan target of 1.25 million pump-sets and tubewells, about 0.26 million were energised in the rural areas during 1969-70 and a further 0.26 million are expected to have been energised in 1970-71. It is quite likely that the States will achieve the target under minor irrigation during 1969-74. The net irrigated area under minor irrigation will rise from 12.9 million hectares in 1950-51 to 25-26 million hectares by the end of the Fourth Plan period (Annexure V).

23. As the employment potential of minor irrigation is large not only at the construction stage but later also on account of the amount of labour employed for intensive cultivation, we feel that the tempo of this programme should be accelerated and the area to be covered by minor irrigation expanded during the next two years. An additional area of about half a million hectares at a total cost of Rs. 100 crores could, in our view, be reasonably covered during the next two years. It should be possible to arrange for the additional resources from financial institutions. Part of this outlay could be profitably utilised on drainage schemes in flood-affected and water-logged areas in States like West Bengal and Bihar. This additional programme is expected to generate during the construction phase employment for nearly 4 lakh unskilled workers (126 million man-days) and about 50 thousand skilled workers (14.80 million man-days) during the next two years. To-

gether with the balance of the Plan outlay, institutional finance and farmers' contribution, the total outlay on the programme during next two years will be Rs. 675 crores, and is expected to generate employment, in the construction phase, for 23 lakh unskilled workers and 4.5 lakh skilled workers.

RURAL ELECTRIFICATION

24. Rural electrification is one of the important programmes for the development of infra-structure in the rural areas. Studies made in the past have indicated that this programme has helped the transformation of agriculture as irrigation with electrically pump-sets/tubewells can bring about radical changes in the techniques of cultivation/cropping pattern, etc. It is difficult to quantify the contribution to employment generation by this programme. We are, however, taking steps to get an assessment made of the impact of this programme on employment in the rural areas and we hope to consider this in connection with our final report. This programme has, it is generally accepted, a good potential for the generation of wealth and employment and, therefore, great emphasis has been laid on rural electrification schemes in the Fourth Plan.

25. The investment on rural electrification programme has been stepped up over the successive Plans. During the first three Five Year Plans, the investment on rural electrification was Rs. 236 crores. During the three annual Plans of 1966-67, 1967-68 and 1968-69, the total investment on this programme was Rs. 238 crores and thus by the end of 1968-69, it has almost doubled to Rs. 474 crores. For the Fourth Plan (1969-74), an outlay of Rs. 295 crores has been provided in the State Plans. In addition, Rs. 150 crores have been provided in the Central Sector for outlay on rural electrification thus making a total outlay of Rs. 445 crores. The break-up of the outlay for the respective States and Union Territories and the outlay through the financing programme of the Rural Electrification Corporation is given in Annexure—VI. Apart from the Plan provision it was envisaged that funds of the order of Rs. 75 crores would also be available to the State Electricity Boards from other financial institutions, such as, the Agricultural Refinance Corporation, the Agricultural Finance Corporation and commercial banks. Thus it was estimated that the total investment on the programme during the Fourth Plan would be around Rs. 520 crores and about 15 lakh additional irrigation pumpsets/tubewells would be energised. It was also expected that along with the energisation of 15 lakh pumpsets/tubewells, about 50,000 new villages would also be electrified during the period of the Fourth Five Year Plan. The original expectation of electrifying 50,000 new villages during the period of the Fourth Five Year Plan has been realised in the first three years of the Fourth Plan itself.

26. The agency in the Central Sector for providing finance to selected programmes of rural electrification is the Rural Electrification Corporation which was set up in July, 1969 on the recommendation of the All India Rural Credit Review Committee constituted by the Reserve Bank of India, with a Plan outlay of Rs. 150 crores. The Corporation provides additional funds to the State Electricity Boards over and above the provision in the State plans with a view to enabling them to implement their rural electrification programme.

While sanctioning schemes, it adopts a "project approach" with the accent on electrification of a cluster of irrigation pumpsets and insists that the scheme should be such as to help the general economic development of the area by stimulating the efforts for increased agricultural production and for the growth of rural industries. It has so far sanctioned 157 schemes of the State Electricity Boards for a loan assistance of Rs. 93.5 crores for the electrification of about 15,000 villages, energisation of 2.26 lakh pumpsets/tubewells and the provision of 36,000 connections for small-scale industries and agro-industries. In addition, loan assistance of Rs. 12.8 crores has also been given to five pilot rural electric cooperatives for the electrification of villages, energisation of irrigation pumpsets and the provision of 1,600 electric connections for industrial purposes.

27. It has been observed that as indicated in Annexure VII, the progress of village electrification has been slow in nine States and is below the all-India percentage of about 20. This has been mainly due to the constraints of financial resources. Among other factors responsible for the slow progress are the inadequate or irregular supply of materials like steel, poles, etc. and the lack of high tension transmission and distribution lines. Some of these States do not have adequate field organisations to survey and select areas on a priority basis. The Rural Electrification Corporation has, however, been giving special attention to the financing of schemes from these backward States and it has provided special loans for extending the high tension transmission and distribution net works in these States.

28. In view of the employment and wealth generation potential of rural electrification and satisfactory progress made in its implementation, it is of great importance that the programme should be extended to cover more areas and more villages in order to bring the benefits of the new agricultural technology, cropping patterns, agro-based and small-scale industries, etc. to newer and fresher areas. An exercise has been made, we understand by the Central Water and Power Commission, in consultation with the State Governments, in making an estimation of the extent of additional energisation of pumpsets/tubewells and electrification of villages which could be feasible during the remaining period of the Plan. The new target would, according to this fresh exercise, cover the electrification of about 87,000 villages and the energisation of 18 lakh pumpsets/tubewells that is 37,000 villages over the existing Plan targets. The Committee is of the view that it should be possible, given the necessary will and effort, to electrify 37,000 new villages during the remaining two years of the Fourth Plan. The additional resources required for undertaking this programme and achieving these targets would be of the order of Rs. 235 crores, i.e., Rs. 130 crores for additional 37,000 villages and Rs. 105 crores for 3 lakh pumpsets/tubewells. The programme should, however, be so formulated and implemented that the comparatively backward States are assisted to take up the electrification projects selected for those areas, the underlying intention being to bring them upto the national level.

ROADS AND INLAND WATER TRANSPORT

29. A network of well-integrated system of roads is a *sine quo non* for economic development. It not only helps in integrating the rural and urban

economies but also in widening the market economy. For a predominantly agrarian economy like ours with millions of unemployed and under-employed persons living and earning their livelihood in rural areas, a system of well-knit highways and roads serving the rural areas would be an essential infra-structure; moreover, the construction of roads and improvement of rural communication including market and feeder roads would quicken the pace of all-round development and thereby generated employment on a large-scale in rural areas.

30. While in recent years there has been greater awareness of the importance of a network of roads, the question of improving rural roads has not received adequate attention. In fact, only in the Fourth Five Year Plan, some definite outlay has been provided for rural roads. The Fourth Plan makes a provision of Rs. 453 crores for roads in the State Plans and Rs. 418 crores in the Central Plan, making a total of Rs. 871 crores for the road development programme. Out of the outlay on this programme in their Plans, the State Governments have agreed to earmark 25% for rural roads; the provision in the State Plans would thus amount to approximately Rs. 112 crores. In addition to this, a provision of Rs. 25 crores has also been made for market and other rural roads under the Rural Works Programme of the Ministry of Agriculture, Rs. 10 crores under the command area works programme of the Ministry of Agriculture and another Rs. 8 crores under the Market Committee Funds Scheme of the Haryana and Punjab Governments. In all, the total provision for rural roads would thus work out to Rs. 155 crores.

31. According to the document "Mid-term Appraisal" of the Fourth Plan, the total expenditure on road development programmes during the first three years of the Plan would amount to Rs. 394 crores leaving a balance of Rs. 477 crores to be spent during the next two years. The main factors responsible for the slow tempo of implementation of road development programmes have been the constraints of resources as well as certain organisational deficiencies at the State level. The organisational deficiencies have now been overcome, we understand, to a great extent in most of the States though some of the States are still in the process of strengthening their set-up for undertaking larger development programmes. The diversion of funds from the road sector to other sectors is also reported to be partly responsible for the uneven performance. The system of block allocation of Central assistance may also have contributed, although unintentionally, to this state of affairs. In view of this, we consider that the Central Government in consultation with the State Governments should devise appropriate measures by which any diversion of funds from the roads programme is completely eliminated. We trust it will readily be appreciated that if any programme of improvement of road communications and particularly of rural roads has to go forward and achieve the physical targets set for it, it is imperative that the funds earmarked for the programme are in fact spent on it.

32. The development programme of rural roads is primarily a State responsibility and the provision, therefore, has been mainly in the State Plans. There is, however, a marked variation in the implementation of the rural roads programme. For example, Punjab has devoted almost two-thirds of

its total road outlay on rural roads over and above the resources which they have raised through the market committees. Some other States have not, however, been able to spend on rural roads more than 10% of their total road outlay. The programme is however, of such great significance from the point of view of the development of infra-structure and for the improvement of the rural economy that, if necessary, additional provision should also be made for expenditure on such schemes during the remaining part of the Fourth Plan. If a State has been able to fully utilise its Plan outlay on roads and if it is in a position to execute further programmes of roads, including rural roads, it should, in our view, be suitably assisted by the provision of additional funds. It is expected that the States would be in a position to utilise an additional sum of Rs. 110 crores on this programme during this period.

33. As regards the employment generation potential of the programme, it may be stated that an earlier estimate (1960-61) made by the Planning Commission had indicated that an investment of Rs. 1 crore would generate 10,435 man-years of employment in road construction. On account of considerable increase in prices since the time these estimates were framed, the same investment would generate, in terms of the current prices, 5,463 man-years of employment in road construction. Applying the suggested norms, an additional employment of about 8.5 lakh man-years may be expected from the programme during the next two years.

Inland Water Transport

34. Closely allied to road transport is the inland water transport system, which has also got considerable employment potential. We notice that the Central Government has recently appointed a Committee under the Chairmanship of Shri B. Bhagavati to suggest a phased programme of development of inland transport in the country. The Committee's report, which was submitted in 1970, is at present, we understand, under the consideration of the Government. The Committee made a number of recommendations which will have a bearing on the generation of employment. These relate to the improvement of production of certain-ship-building yards by installing modern equipment the replacement of old crafts, evolving of standard designs of hulling and propelling machinery, deepening and widening of certain important canals, etc.

35. India is traversed by several waterways systems extending over 14,000 kilometres of navigable waterways. If inland water transport is properly developed, it would not only provide low cost mode of transport but also considerable scope for generating employment in several parts of the country. Moreover, with the emergence of Bangladesh, the inland water transport system in the eastern sector is expected to receive considerable fillip and may need to be renovated or expanded. Some of the recommendations of the Committee have, we understand, been accepted by the Government. We consider that they should take an early decision on the remaining recommendations also, keeping in view the employment potential of the programme.

RURAL HOUSING

36. The construction of houses for the rural population should be an integral part of any programme of construction in the rural areas. Nearly 80 per cent of our population lives in rural areas where the housing conditions are deplorable. Roughly four-fifths of the rural population lives in miserable kucha structures with flooring made of mud and walls and roofs built of grass, reed or thatch. Hardly 2 per cent lives in pucca houses with plastered flooring, brick walls and concrete or tile roofing.*

37. Under these conditions a bold programme of rural housing is urgently necessary. Such a programme is also warranted by other considerations. In consequence of the break-through in agricultural production in parts of the country as a result of the application of the new agricultural technology, high yielding varieties of seeds, etc., there has been substantial increase in the incomes of a section of the agricultural sector. A programme of construction in rural areas would provide socially useful investment of the increased resources in the rural areas and it would not only improve the living conditions of the persons directly concerned, but also have a snowballing effect by spreading prosperity and generating employment for other sections among the rural people.

38. The Working Group on Housing for the Fourth Five Year Plan had estimated the shortage of pucca houses in rural areas at 718 lakhs at the beginning of the Fourth Plan. As against this, the rate of annual construction in rural areas, according to the 22nd Round of the N.S.S. was 0.65 unit per thousand persons in 1967-68 or about 2.6 lakh new units. The Fourth Plan makes a provision of Rs. 237 crores for housing in the public sector. This along with the investment in the private sector, would mean an annual addition of about 2.8 lakh units to the existing number of houses. On the other hand, the number of houses required for the annual increase in population (about 13.7 million in 1972) would be about 27 lakhs—22 lakh new houses in rural areas and 5 lakhs in urban areas. Thus the new houses that could be constructed with the Plan provision along with the investment in the private sector would not, to any extent, meet the annual increase in housing requirements, leaving the huge backlog severely along. Of the Plan outlay of Rs. 237 crores, the sums provided for village housing are very meagre, amounting to 6% only. The Planning Commission has observed in the 'Mid-Term Appraisal' that village housing has been neglected.

39. Taking the rural and urban areas together, the overall rate of construction in the country works out to 2 pucca houses* for 1000 persons annually as against 7.2 in Japan, 6.8 in Hong Kong, 7.8 in France, 7.6 in Denmark, 6.5 in U.S.A., 10.2 in West Germany and 10.3 in U.S.S.R. With the investment proposed in the Fourth Plan, we may not be able to achieve a rate of construction anywhere approaching the rates realised in these countries.

We consider that taking into account the deplorable housing condition in rural areas and the resources generated in these areas by growth of production in the agricultural sector in recent years,

*Report of the Working Group on Housing for the Fourth Five Year Plan—1969—74.

effort should be made to undertake a rate of construction of 0.8 unit per thousand persons or 3.6 lakh new units in 1972-73 and 0.9 unit per thousand persons or 4.1 lakh new units for 1973-74 as against the rate of 0.7 unit per thousand persons or 3.1 lakh units expected to be reached in 1971-72.

Programme for Rural House Construction

40. Assuming a cost of Rs. 3000 per unit for undertaking construction at the rate of 0.8 unit per thousand persons, the total investment needed for the year 1972-73 would amount to Rs. 108.0 crores and that for 1973-74 to Rs. 123.0 crores making a total of the order of Rs. 231.0 crores as given in the table below :

Year	New units per thousand of population	New units in physical terms (in lakhs)	Total investment (Rupees crores)
1972-73	0.8	3.6	108.0
1973-74	0.9	4.1	123.0

For the years 1972-73 and 1973-74 each, a step-up of 0.1 unit per thousand persons is envisaged. Since the total shortage of houses is estimated to be of more than 800 lakh units in rural areas, the problem is of such vast magnitude that no significant impact can be made on it in the short term; a modest attempt may, however, be initiated to reduce the cumulative shortage over a period of time.

Employment Potential

41. As for employment potential of the proposed programme, we have assumed that direct wage component of the total investment will be 30 per cent while that of material will be 70 per cent. Taking the wage of an unskilled worker on an average at Rs. 3 per day and that of skilled at Rs. 5.50 per day, the investment per man-day (the ratio of skilled to unskilled worker is 1:2) would be Rs. 11.50. On the basis of 300 days' working in the year, the above investment will provide direct employment for 0.9 lakh workers in 1972-73 and 1.1 lakh in 1973-74. This does not include the indirect employment potential likely to be generated by the requirements of building materials, fittings and fixtures and the provision of other services—all of which are bound to be of considerable dimensions. Assuming an indirect employment of the order of 1.6 times the direct employment, i.e., about 3.2 lakh workers, the total direct and indirect employment potential of this programme would be about 5.2 lakh workers for the next two years.

Housing Finance

42. In the recent past there appears to have been some increase in building activity in the rural areas, caused no doubt by the steady increase in the incomes, of some sections of the rural population. There is also a desire among the new affluent classes in the rural areas to improve their living conditions and to have better housing, clothing, education, means of transport, etc. This desire could well be properly utilised and channelised if the Government could initiate steps for providing institutional framework for mobilising them for house construction. To some extent, investment in housing from new incomes has been inhibited by the absence of an effective institutional framework to give sustenance and support to such

programme. With the provision of the institutional framework the programme of construction will, it is expected, receive considerable impetus. Its success will, however, require considerable initiative from the inhabitants of the rural areas themselves.

43. In our considered opinion, it is essential that a large scale programme of construction of rural houses should be formulated, initiated and launched by the Government (the term includes both the Central and State Government). The Government have to play in this programme a positive and active role. In the existing circumstances in the rural areas and in view of the inertia and apathy of the past, a programme in the nature of a mass movement would, in order to be launched, need active stimulus and encouragement from the Government as also an institutional framework, financial support etc.

44. The Government should, in our view, act as a catalytic agent by providing the necessary institutional framework and by actively promoting the development of rural housing through the publicity media and the Government agencies operating in the rural areas, e.g., the officials at the block-level, the panchayatiraj organisations, etc. As its main agency, Government should take steps to set up in each State a Board and/or a rural housing finance corporation with a corporation for rural housing as the apex organisation at the Centre. Government action would further be needed in the matter of removing the existing difficulties for example those of a legal and administrative nature in the matter of availability of land. The problem of the weaker sections of the community, particularly those belonging to Scheduled Castes, Scheduled Tribes and Backward classes, would require special attention. Some of the State Governments have, we notice, promoted legislation for conferring homestead rights on landless workers in respect of the house sites already in their possession while a few others have taken other measures to deal with the problem. We would emphasise that as an essential step the weaker sections of the community in the rural areas should be assisted to acquire house sites on a larger scale.

45. As regards the institutional framework, we notice that a Housing and Urban Development Corporation entrusted with the task of or-

ganising, coordinating and accelerating the programme of housing and urban development in its widest context throughout the country, has recently been set up by the Central Government. This Corporation, however, intends to confine its operations to urban areas only and to concentrate initially on the four metropolitan cities though it is competent under its charter to undertake the financing of rural housing and village renewal programmes also. In several States, Housing Boards have been established; their functions, *inter alia*, are the acquisition and development of land, formulation and improvement of housing schemes and projects, management of housing estates, the raising of resources through the issue of debentures and guidance and assistance to other authorities. These institutions also have been hitherto operating in the urban areas only. We consider, however, that the requirements of the situation would demand that there should be in existence in each State a suitable institutional agency, to undertake in the rural areas the types of functions which the Housing Boards are at present undertaking in respect of the urban areas, *viz.*, the acquisition, development of land, formulation and execution of housing schemes, etc. They could also assist the rural people by preparing plans, designs etc. for rural houses with due regard to the local conditions, environment and climate and arrange to make them available to the prospective house builders. They could also render technical advice to the co-operative societies, panchayati raj bodies, etc., take up research on housing and examine the suitability of local materials for use in construction and also organise or promote the production of building materials for houses.

46. The great majority of the inhabitants of rural areas would need financial assistance for house building which should be provided to them by institutional agencies. For this purpose, we consider that there should be in existence in each State a Rural Housing Finance Corporation charged with the duty of providing financial assistance to cooperative societies, panchayati raj institutions, individuals, etc. for housing projects or individual houses. The housing and Urban Development Corporation (or a separate corporation, if necessary) at the Centre may function as the apex organisation for financing rural housing. The seed capital of the apex corporation, which should be quite sizeable, should be provided by the Central Government and it should be in a position to build up a large revolving fund by raising funds from various sources, *i.e.*, through the Central Government, the financial institutions like the L.I.C., the Unit Trust, nationalised banks and rural debentures. The central organisation should operate through the rural housing finance corporations in the States. The latter should, in their turn be provided with the seed capital by the State Governments and should raise the maximum possible funds from various sources like the apex body, the L.I.C., nationalised banks, etc.

47. A rural house building programme of any size will require large resources which cannot be found by the beneficiaries themselves or even by Government. Therefore, besides a Rural Housing Finance Corporation at the Centre and its counterparts in the States, the financial institutions like the L.I.C. and the nationalised banks would have to make their contribution to such a programme. In particular, the L.I.C. which does not appear to have provided any assistance worth the name upto

now, would have to play its part in fostering and promoting a programme of housing in rural areas and thereby provide a better service to its rural policy-holders.

RURAL WATER SUPPLY

48. A programme of rural water supply would provide one of the basic amenities to the rural areas which are widely lacking in them. It would also help build up an essential *infra*-structure for rural development and improve the quality of rural living. In addition, it would provide employment to engineers, and other technical and non-technical personnel.

49. Though the bulk of the country's population living in villages has not yet, by and large, been provided with the ready availability of potable water, it is estimated that in about 1.45 lakh villages covering a population of 9.9 crores the availability of water is grossly inadequate or highly unhygienic. These include approximately 60,000 villages situated in permanently disadvantaged areas such as hilly and mountainous regions, arid zones and saline tracts and about 37,000 village prone to endemic diseases such as cholera and guinea-worm. A sum of Rs. 125 crores has been provided in the Fourth Five Year Plan for rural water supply schemes. It is proposed under this programme to provide drinking water to 70,000 villages—to 20,000 villages through pipes and to 50,000 villages through tubewells and hand-pumps. Besides, there is a centrally sponsored scheme for setting up special investigation divisions for identifying difficult and scarcity areas and preparing plans and estimates for selected rural water supply schemes on a priority basis. In addition a provision of Rs. 5.7 crores has been made for installation of 12,000 hand-pumps/tubewells and 200 power-driven tubewells in the rocky areas of the country with 100 high speed pneumatic drilling rigs expected to be received from the UNICEF.

50. More recently some additional resources have been provided for the programme relating to rural water supply. Out of the current year's budget provision of Rs. 25 crores for schemes relating to the educated unemployed, a sum of Rs. 22 lakhs has been provided for the setting up of design units for rural water supply scheme, with a total outlay of Rs. 1.10 crores spread over the remaining period of the Fourth Plan. This scheme envisages the setting up of Planning and Design Units in all States for drawing up detailed estimates and Plans for piped water supply schemes in scarcity villages during the Fourth and Fifth Plan period. It is proposed to give 100% financial assistance to the State Governments for this purpose.

51. Out of the targeted number of 70,000 villages, approximately 50 per cent, that is 35,000 villages will be those which are situated in the permanently disadvantaged areas, including cholera and guinea worm infested villages. On the assumption that the targets laid down in the Fourth Five Year Plan are achieved, there will still remain approximately 62,000 villages where acute scarcity of drinking water is felt. Thus the programme of rural water supply will have to be considerably stepped up so as to provide adequate relief in the acute scarcity areas. The actual execution of water supply schemes in these villages would involve an outlay of the order of Rs. 186.00 crores. The expansion

of the existing water supply programme with such additional outlay would not, however, be feasible at this stage either financially or administratively.

52. In view of the importance of the programme, we feel that the pace of execution of the current programme should be accelerated and its coverage extended. In our view, the programme should be extended to at least 21,000 additional permanently disadvantaged and disease—infested villages over the remaining two years of the Plan. Of this 10,000 villages should be served with piped water and the rest through simpler measures (e.g. dug-wells and handpumps). This will be over and above the number to be covered under the existing schemes. This will involve an expenditure of Rs. 61.55 crores, both for the planning and designing as well as the execution of the water supply schemes. The employment generated as a result of the extended scheme is expected to be 25,498 man-years both for engineers and other staff. We suggest further that the designing of suitable schemes and preparation of plans and estimates for the remaining villages also, *i.e.*, about 42,000 villages should be taken up in the immediate future, so that the execution of these works may be taken up when the resources become available therefor. This is expected to involve an expenditure of the order of Rs. 3 crores.

53. The L.I.C. have recently entered the field of financing rural water supply schemes by giving loans to Zila Parishads in a State for such schemes. It is desirable that they as well as other term lending institutes should extend support to this programme by giving loans etc.

In any such programme it stands to reason that the beneficiaries of the scheme should be called upon to make contribution to the cost of the scheme while, in villages which are inhabited predominantly by scheduled castes, scheduled tribes, or backward communities the entire cost may be provided as a grant as at present, in respect of other villages, we would like to reiterate the suggestion already made in the Fourth Five Year Plan document that, wherever possible, capital contribution and levies should be collected from the beneficiaries.

EDUCATION

54. The magnitude as well as intensity of the problem of educated unemployed, especially matriculates and graduates in the country, has assumed serious proportions and needs separate study and analysis. Besides involving a huge wastage of the resources invested in educational development, the widespread unemployment of educated persons creates numerous social problems. Unemployed educated persons become frustrated and feel a strong resentment against the existing social order and they become a source of social, economic and political discontent and turmoil in the country. The provision of job opportunities to the increasing number of educated unemployed needs therefore immediate attention.

55. It is difficult to make a precise estimate of the number of the educated unemployed in the country. The latest employment exchange data available show that 44.95 lakh job-seekers in all were registered with them on 30-6-1971. Out of these, 20.53 lakh job-seekers (or 44 per cent) belonged to the category of 'educated'. The break-

up of this number on the basis of the levels of education is given below:—

Level	Number in lakhs
Matric	11.91
Above matric but below graduation	5.29
Graduates & above	3.33
	20.53

Primary Education

56. Some schemes for the employment/self-employment of engineers and technical persons have been formulated by the Union Government and State Governments and are already under implementation. Expansion of primary education is one of the chief measures which can in our view generate large employment opportunities in the short-term for the other category of the educated unemployed. The Union Government has also recognised this fact, and has recently sanctioned a scheme of assistance to States for the appointment of 30,000 teachers and 240 Inspectors for an expansion of the programme of primary education, which will cost Rs. 4.4 crores in the current year and Rs. 12 crores annually in the next two years. The current year's requirement has been provided out of the budget allotment of Rs. 25 crores for the educated unemployed. An outline of the scheme is given in Annexure VIII. We have, however, felt that the provision made in this programme is not adequate, considering the large number of unemployed educated persons and the great leeway to be made up in attaining universal primary education as envisaged in Article 45 of the Constitution. We, therefore, suggest that a more comprehensive programme of expansion of primary education should be undertaken in the immediate future. This programme should be suitably phased so as to provide educational facilities for 95 per cent of the children of the age-group 6-11 and for 45 per cent of the children of the age-group 11-14 by 1975-76. The implementation of this programme is likely to generate additional employment opportunities for nearly 1.25 lakh teachers and 1,000 Assistant Inspectors of primary schools every year, besides the requirements for normal replacement.

57. The statement at Annexure IX shows, according to the ranking of the States in respect of achievement, the Statewise position regarding the enrolment in classes I to V and the targets proposed for the age group 6-11 years. At present, the enrolment in these classes is about 600 lakhs or nearly 80 per cent of the age group 6-11 for the country as a whole. By 1975-76, it will require to be increased to at least 790 lakhs in order to achieve the proposed target of 95 per cent. This will involve the additional enrolment of nearly 38 lakh children in these classes every year.

58. The statement at Annexure X shows, according to the States ranking the statewise position of enrolment in classes VI—VIII in 1970-71 and the additional enrolment that will have to be undertaken during the next five years, that is, by 1975-76. At present, the enrolment in classes VI—VIII is of the order of 140 lakhs or 35 per cent of the population of the age-group 11—14. It will need to be increased to about 206 lakhs by 1975-76 in order to achieve the proposed target of 45 per cent of this age-group. This will involve an

increase of nearly 13 lakh children in these classes every year. The enrolment of 13 lakh additional students, can, however, be divided into 9 lakh students in regular classes and 4 lakh students in part-time classes for student-workers. The system of part-time classes is the one recommended by the Education Commission and is discussed further below.

59. As the development of primary education varies greatly from State to State, the expansion programme will have to be drawn up separately for each State, keeping in view the stage of development and the local factors affecting its development.

60. The Ministry of Education and Social Welfare has calculated the total cost of the scheme as in Annexure VIII on the basis of an average cost of Rs. 275 per mensem per additional teacher but they have mentioned that the teachers appointed under the scheme will draw salary and allowances prevalent in a State for that category of teachers. Considering the great variation in the scales of pay of primary school teachers in different States, the average salary of a teacher may be taken as Rs. 200; to this may be added 20 per cent for non-teaching costs and pensionary benefits making a total of Rs. 240 as the average cost per mensem as detailed in Annexure XI. The average annual cost per child at the lower primary stage would thus come to Rs. 72, if the teacher-pupil ratio is taken as 1:40. Similarly the average annual cost of education in the upper primary stage comes to Rs. 105 per student. The financial implications of these proposals worked out for the remaining two years of the Fourth Plan are broadly indicated in Annexure XI and would amount approximately to Rs. 130 crores for the remaining two years of the Plan. Keeping in view the difficulty of attaining such a high percentage of enrolment within a short span of time and also the need for reasonable expansion of primary education, we indicate below some measures that should help in the solution of some of the problems attendant upon such additional enrolment.

61. The following are some of the measures that may be considered in this connection, subject to their administrative feasibility:

(i) *The Adoption of Double-Shift System at Lower Primary Stage Since due to*—paucity of resources, we are recommending only a national amount for school building, we suggest that the existing school buildings and equipment should be put to more intensive use by the adoption of double-shift system in classes I—V of the primary stages without involving any extra shift working for the teachers. This system will help in economising on the expenditure on buildings, equipment and other overhead charges. It has been successfully adopted, we understand, in Kerala State.

(ii) *Part-time Education*.—Another measure recommended by the Education Commission and emphasised in the Fourth Plan is to provide part-time education to all children who cannot attend schools on a full-time basis. At present nearly 75 per cent of the children drop out before reaching class VIII. Most of these children are the helpless victims of poverty and they are impelled to leave schools in order to make some contribution, however

meagre to the low earnings of their families. If a programme of part-time education with suitable hours of schooling is adopted, these children can at a later stage be brought into the schools to complete their elementary education. This programme can be organised in the existing school buildings and with the existing equipment and by utilising the services of educated unemployed persons by giving them a suitable honorarium. Besides reducing costs (by about 50 per cent), this programme will provide educational facilities to such drop-out students and also increase employment opportunities for the educated unemployed.

62. An important strategy should be to involve the local community, both organisationally and financially, in the programme of primary education, in relation particularly to the construction of school buildings. It is on this consideration that we are including only a modest amount of Rs. 30 crores for the construction of school buildings. The programme of construction of these buildings should, where possible, be linked with schemes like the Crash Scheme of Rural Employment, so that the labour component of the cost may be met out of the provision made under these schemes. The cost of building materials alone need be met out of the proposed outlay. In this connection, the possibility of financing the construction programme either wholly or partly through loans raised from financial institutions like the Life Insurance Corporation also requires to be explored, since this will reduce the immediate strain on the Government's budgetary resources and will spread the incidence of the capital cost over a longer period during which the loans may be amortised.

Besides, in order to minimise the economic waste involved in a large proportion of the new entrants to primary schools dropping out before completing the primary stage and to make the schools more attractive, sufficient provision should be made for amenities like midday meals, free supply of books, stationery, uniforms etc. to the needy children. These amenities would help in tackling the problem of retention of children in schools.

63. The programme of expansion of primary education suggested by us will create a large volume of employment opportunities for the educated unemployed as teachers, inspectors of schools and in other supervisory and clerical positions. According to this programme, an additional enrolment of 38 lakh children in the lower classes and 9 lakh children in the regular classes of the upper primary stage of education has to be made every year upto 1975-76. Based on the present teacher-pupil ratio of 1:40 and 1:30 respectively in the two stages, nearly 95,000 teachers would be required for the lower primary stage and about 30,000 for the upper primary stage i.e. a total of 1.25 lakh additional teachers each year. In addition to this, there would be additional employment of about 1,000 assistant inspectors of schools at the usual rate of one inspector for 125 additional teachers. Thus for the remaining 2 years of the Plan period, employment opportunities would be generated for 2.50 lakh teachers and 2,000 inspectors of primary schools. The programme of providing part-time education to 4 lakh children would also provide more employment opportunities on part-time basis for matriculates.

Adult Literacy

64. In spite of the unprecedented expansion of primary education and despite many literacy drives and programmes, the number of illiterates in the country has increased from 333 million in 1961 to 386 million in 1971, and the percentage of overall literacy in the country has registered only a modest increase from 24.0 per cent in 1961 to 29.4 per cent in 1971. We consider, therefore, that it is essential to undertake immediately a programme of mass literacy. This programme may be launched in 100 selected districts where the number of educated unemployed is comparatively large. This programme should aim at covering illiterate adults preferably in the younger age groups of 18—35.

65. This programme should be considered by the Ministries concerned with technical avocations such as the Ministries of Agriculture, Industrial development etc., as an investment in productivity and they should show greater awareness of its potentiality. In order to make the programme attractive and fruitful, the instructions should not only be confined to traditional teaching of 3 R's but the curriculum should have a functional and occupational bias suited to the background of the adult trainees who may be grouped suitably according to their occupations, e.g., agriculture, village industries, crafts etc. Further a sound continuing programme of follow-up and supply of reading material is essential, if the newly literate adults are not to relapse into literacy. For this purpose suitable books and brochures giving useful information about rural occupations and other material dealing with the economic and social uplift of the villages, family planning etc. should be prepared and supplied; in addition light literature in simple language should also be made available. Besides making the people literate, this programme will help in increasing the effectiveness of developmental efforts due to improved receptibility on the part of the literate population and improve the professional competence of persons engaged in different occupations, broaden their outlook and improve their quality of living.

66. These classes for adults have necessarily to be of short duration say, 1½ hours per day and that too in the evenings. Part-time teachers at an honorarium of Rs. 60 per month should be appointed to teach a class of about 35 illiterates, the duration of the course per batch being limited to 6 months. Each teacher will thus cover 70 illiterates in a year. We consider that 30,000 part-time teachers may be appointed under this programme which will cover more than 2 million illiterates in a year. The estimated cost of this programme (on the basis of Rs. 60 per teacher per month plus Rs. 10 as non-teaching cost for 30 thousand teachers per year) will be Rs. 2.50 crores annually making a total of Rs. 5 crores for the remaining two years of the Plan period. This modest programme should be able to cover during the next two years about 4 million illiterates, i.e., approximately 4% of the illiterate persons of the districts selected.

67. The financial implications of these proposals as worked out for the remaining two years of the Fourth Plan are broadly indicated in Annexure XI and would amount approximately to Rs. 130 crores. The mid-term appraisal of the Fourth Plan has revealed a great shortfall in expenditure

as only 37.7 per cent of the total outlay has been spent on elementary education leaving Rs. 146.27 crores for the remaining two years of the Plan. The Current expenditure on the programmes relating to the expansion of primary education and adult literacy involving an outlay of Rs. 100 crores (approximate) could therefore be found out of this outlay, while the expenditure of Rs. 30 crores in respect of school buildings could be met from the capital resources of the Government.

MISCELLANEOUS

(i) *Maximum utilisation of Installed Capacity in Industry and the Reopening of Closed Units*

68. It is well-known that in recent years there has been considerable under-utilization of installed capacity in various industries which has had serious effect on the employment situation. The main factors responsible for under-utilization of capacity in different industries include: insufficient demand, shortage or irregular supply of raw materials, components, spares, etc., shortage or irregular supply of power, transport bottlenecks, disturbed industrial relations and other management problems.

69. In order to generate employment in the industrial field in the short-term, it is essential that this under-utilization of installed capacity in various industries be reduced to the maximum extent possible. These industrial units have been put up at great cost involving scarce capital and still scarcer foreign exchange resources and it is essential that these should be put to the best use. Besides creating additional direct employment, the fuller utilization of capacity will have a multiplier effect on employment in other sectors. For these reasons it is essential that adequate attention be paid to the adoption of suitable measures for tackling the factors which have resulted in the under-utilization of the installed capacity.

70. We are aware that action on some of the remedial steps has already been initiated by the Government. A crash programme has been launched to increase the production of cotton and jute. It is proposed to establish a 'steel bank' to procure steel in advance of requirements and to supply essential needs ex-stock. More recently it has also been decided* that in respect of 54 specified industries additional production would be allowed subject to certain conditions. When the licence issued to a party mentions a specific capacity on the basis of one or two shift working, the party would be allowed an increase in the licensed capacity on the basis of the maximum utilization of the plant and machinery. In other cases too, the licensed units have been permitted to operate upto 100% above the licensed capacity.

These measures, besides securing better utilization of capital invested in these industries and increasing the supply of goods, will also contribute to improvement in the employment situation. In order to increase productive employment in this field it is essential that increased utilization of capacity should also be allowed to other industries. We suggest that the cases of other industries should be examined on individual merits and they should be allowed similar facilities if that would demonstrably lead to creation of substantial employment.

*Ministry of Industrial Development Notification dated 1st January, 1972.

71. *Closure of Sick Units.*—Another phenomenon which is affecting not only the growth of employment but diminishing even the existing level of employment is that of the closure of 'sick' units. The stoppage of work in an increasing number of factories has thrown out of employment a larger number of industrial workers and created social tensions affecting the law and order situation. The Government have recently taken a number of steps to deal with this problem, e.g. the enactment of the Cotton Textile Companies (Management of Undertakings and Liquidation or Reconstruction) Act empowering Government to take over the sick textile units, the setting up of the National Textile Corporation for financing and managing these mills, the amendment to the Industries (Development and Regulation) Act giving Government powers to take over the management of other industries, etc. We feel, however, that in this matter suitable action requires to be taken by Government even at an earlier stage before the malaise becomes acute. The closure of a unit is generally the culminating point in a series of events which may involve mismanagement, lack of finances, lack of raw materials, obsolescence of machinery, labour-management tensions etc. In many cases action at an earlier stage could have prevented closure. We would suggest that the Government should set up an agency charged with the duty of overseeing the economic health and the state of affairs obtaining in such industries where closures have taken place or are apprehended (e.g. cotton textile, engineering). Such an agency should organise a proper system of timely reporting for this purpose and it should keep Government apprised of the developing situation from time to time to enable Government to take effective steps to prevent the situation from deteriorating further. This monitoring organisation should have the power to get periodical reports relating to the selected industries and the units therein. We suggest that the Ministry of Industrial Development should initiate studies to identify the industries which require to be brought within the scope of such organisation from time to time. It is also important that remedial and timely action by the authorities concerned in the matter may not be stalled on account of the non-availability of requisite financial resources, adequate provision for which should, in our view, exist. We would recommend the setting up of a separate corporation for the purpose with adequate revolving fund.

(ii) *Promotion of Productive Employment for the Educated Unemployed*

72. In view of acute unemployment among the growing number of educated and technically qualified persons a number of schemes have been initiated to assist them to find employment. It is not, however, possible to provide all such persons salaried/wage-paid employment and hence increasing attention has been paid in the recent past to devising schemes to enable these persons to take up self-employment in industries, agriculture, professions etc. or to engage in other productive activities. In the "Fourth Five Year Plan" document, it is indicated that schemes will be formulated for training and financial assistance to technically qualified persons so as to enable them to set up

industries. Besides these schemes, the Government of India (Ministry of Industrial Development) have recently sanctioned a centrally sponsored scheme with a provision of Rs. 6.5 crores for providing assistance to the educated unemployed for setting up small industries. This sum has been earmarked out of Rs. 25 crores provided in the current year's budget specifically for schemes to assist the educated unemployed.

73. After the nationalisation of the banks in July, 1969, they are expected to subserve the objectives of public policy, become instruments of economic development and assist employment generation. These banks and the State Bank of India have, in the recent past and particularly since nationalisation, been operating schemes of special financial assistance to help entrepreneurs and certain categories of self-employed person like professionals, transport operators, etc. A Committee (popularly known as the Thakkar Committee) was set up by the Reserve Bank of India in October, 1970 to review the existing institutional arrangements and special schemes for meeting the credit requirements of various types of self-employed persons, to identify the categories of such persons who should be eligible for special financing and to evolve guidelines in respect of security, rates of interest, period of repayments and other terms and conditions for such financing. In the light of this Committee's recommendations, the Reserve Bank of India have prescribed in March, 1971, certain guidelines* for the commercial banks in respect of the operation of these special credit schemes.

74. The Thakkar Committee have emphasised that the banks and similar financial institutions, which mobilise the savings of the community and canalise them into productive investment, have to play an important role in stimulating employment. They have, therefore, to adopt a conscious policy of employment promotion. They have suggested, *inter alia*, that if each branch of the banks entertains on an average about 50 proposals in a year for assistance to unemployed persons, about 3 million jobs could be created by all the commercial banks in the next 5 years, besides substantial indirect employment. Another suggestion made is that each branch of nationalised banks should be enjoined to sponsor projects which within a year would create 100 additional jobs.

75. The number of branches of banks exceeded 12,000 in 1971, and the rate of opening of new branches is also high—more than 4,000** branches have been opened since the nationalisation of the banks. The performance of banks in deposit mobilisation has been very encouraging and the deposits of the scheduled commercial banks have registered an increase of 16.6% in 1970 and of 20.4% in 1971@. With their increasing resources it should be possible for the banks to play an increasingly purposive an fruitful role in providing assistance to the various categories of self-employed persons. It is difficult for us to lay down a definite target for each branch and in a matter like this the banking authorities should themselves set a target of sponsoring employment-oriented projects which each branch should be expected to attain. In view of

*Reserve Bank of India Circular letter dated 19-3-1971.

**Actually 4172 branches, (the Reserve Bank of India press note dated Dec. 29, 1971.)

@Deptt. of Banking, Ministry of Finance, Government of India.

the high rate of growth of deposits and the resources of banks, it is essential that a suitable portion of these additional resources should be earmarked for such schemes. Without being specific about any particular proportion, the amount to be earmarked in a year for these schemes could, in our opinion, be reasonably placed at 25 to 30% of the additional resources.

76. The Thakkar Committee have indicated certain categories of persons who should be treated as self-employed for purposes of special credit schemes of banks. They have, however, taken pains to emphasise that the list given by them is by no means exhaustive but only illustrative. The Reserve Bank of India have also recommended in their guidelines of March 1971 that banks should, on their own initiative, formulate special credit schemes for promoting the generation of employment according to their innovative capacity and they should exercise a measure of healthy competition with other banks in this regard. Since the categories of self-employed persons identified by the Thakkar Committee are only illustrative, we feel that banks should take a broad and liberal view of the categories to be eligible for assistance and should extend it to the entire range of the self-employment field so as not to deny credit facilities to any class of persons wanting to set up as self-employed persons in a profession or business activity. Many persons setting up in profession will also create employment opportunities for others e.g. a journalist setting up a publishing house or printing press or a person organising a troupe of artists will employ many other persons also.

77. In order that these measures of special credit assistance should be really efficacious, it is also essential that the terms of the loans, e.g., the rates of interests, period of repayment, margins, security, etc. should be made softer and should take into consideration the requirements and limitations of such borrowers. In this connection suggestions have been made that the margin requirements by the commercial banks should be nominal or should be dispensed with altogether in suitable cases and also that these persons should be offered differential rates of interest for the advances made. We observe that some of these points inter alia, were recently considered by the Committee on Differential Interest Rates set up by the Reserve Bank of India in September, 1970. We consider that a decision on these points should be taken very early by the authorities concerned taking into account, on the one hand, the needs and requirements of such under privileged persons and on the other, the disabilities and serious limitations, which have practically inhibited them in the past from availing of the various facilities offered by the banking system.

78. It is, however, as important as the formulation of measures of special credit assistance to ensure that the schemes undertaken are operated efficiently and in a proper spirit and that the service provided by the banks is prompt and timely and gives satisfaction to their customers. The procedure adopted by them in processing the applications for assistance of the young entrepreneurs are, we are told, tardy and time-consuming and many applicants feel discouraged and frustrated as a result of these procedural delays. It is also essential for the unemployed taking up self-employment to have necessary technical guidance/assistance in respect of availability of land, sheds, machinery, raw materials and on matters relating to taxation, finance, labour management, marketing etc. We hope that the banks

themselves will appreciate the importance of streamlining and improving their methods and procedures so that they may be able to provide more prompt and efficient service.

As regards the provision of technical assistance etc., we notice that the setting up of a Multi-Service Agency has been suggested. This Agency will not only collect the relevant data and information in respect of the educated unemployed but will also give advice and technical assistance to the entrepreneurs on the feasibility of their projects and on other cognate matter. The setting up of such agency for providing these essential service, both to the lending institutions and the prospective entrepreneurs, should be of great help in the operation of these special schemes and is to be welcomed on that account. The difficulties of the young entrepreneurs do not end there, since on account of the limitations of their resources, technical expertise, experience, etc., they come up against a number of difficulties in the matter of raw materials working capital and necessary marketing arrangements during the working of their enterprises. It is desirable that some institutional arrangements should exist to look after these tasks in a more organised and systematic way, on behalf of these entrepreneurs working in a particular locality or industry. For this purpose they might organise themselves into an association or body which will tackle the problems of small industries like raw materials, finance, marketing of products, etc. and take them up with the appropriate authorities, where necessary. The formation of such voluntary organisations to provide, or assist in the provision of common service facilities should, in our view, be encouraged by the Government.

(iii) *Exemption for unemployed persons from payment of application fees*

79. Among the suggestions received by us, one relates to application fees generally payable by the candidates who apply for jobs and the other to travelling allowance and daily allowance for those who are called for interview. The suggestion pressed for consideration is that no fees should be charged by the appointing authorities from the unemployed applicants and that all such persons as are called for interview should be paid travelling and daily allowances. It is contended that on grounds of equity and social justice the unemployed persons should not be burdened with any expenses while seeking employment. They have generally to apply many a time before they get a job and therefore the cost of the application fees and the travelling expenses, prevent such persons from taking advantage of the existing employment opportunities.

80. On these points, there are differing points of view. While the proposal is pressed on the considerations mentioned above, it is argued, on the other hand, that the exemption of unemployed persons from the payment of fees would lead to a proliferation of applications from persons who are not either properly qualified or otherwise keen about competing for or taking up the job in question. Also, the application fees collected by the employers can be and are generally used to defray the travelling expenses which are paid to the candidates called for interview. We feel, however, the exemption from the payment of application fee will be a good gesture and would bring some relief to the unemployed persons and would

be appreciated as such by the person affected. The payment of travelling allowance to all unemployed applicants may, however, have wide financial and administrative implications which would need to be examined in all their aspects.

81. A somewhat selective approach in the matter would, in our view, be desirable. Wherever an interview is an essential step in the process of selection, it is desirable that the unemployed candidates called for an interview, be paid travelling expenses to enable them to appear for it. If the selecting authorities exercise proper discretion, as they normally do, in calling the candidates for the interview, this should not prove to be too much of a financial burden. However, in case a competitive test of all the applicants is an essential step in that process, it should not be necessary to pay travelling allowances to all the candidates.

CONCLUSION

82. In the foregoing paragraphs we have endeavoured to outline some programmes for generating employment in the short-term, particularly for the rural unemployed and under-employed. We suggest that these should be implemented forthwith over the next two years. We have no doubt that a speedy and effective implementation of these programmes will generate considerable volume of employment in the rural areas. As would appear

from the statement summarising the financial outlay (Annexure XII), the total financial outlay on the programmes suggested by us for implementation over the next two years should be of the order of Rs. 2,000 crores. Since all these schemes (with the exception of the scheme for rural housing as outlined by us) are already included in the Fourth Plan and specific provisions for them have been included in the Plan outlay, our proposal would involve during the next two years a net addition of the order of Rs. 740 crores for all these programmes including that for rural housing. Out of this amount the sum required from the budgetary resources of Govt. would be about Rs. 280 crores, while a sum of equal order would be required from the financial institutions leaving a sum of Rs. 180 crores to be invested by the residents of rural areas on houses.

83. A sizeable portion of the additional outlay required is expected to be found by the financial institutions including the nationalised banks and the individuals concerned. One of the heartening features of our economy in recent years has been the rapid expansion of branches by banks mostly in the rural areas and consequently there has been impressive mobilisation of deposits. As will be apparent from the statement below the deposits of scheduled commercial banks rose sharply by Rs. 1,171 crores to Rs. 6,856 crores during 1971 registering an increase of 20.6% :

Aggregate Deposits of Scheduled Commercial Banks

(As on last Friday of the Calendar year)

Year	No. of new branches opened	Aggregate deposits (Rs. crores)	Percentage increase in deposits
1968	677	4220.9	..
1969	1369	4876.5	15.5
1970	2137	5684.9	16.6
1971	1254*	6855.8	20.6

*Upto 31st October, 1971.

Source : Department of Banking, Ministry of Finance, Government of India.

The Fourth Plan document originally took credit of the order of Rs. 3000 crores on account of accretion to the banks' deposits. This figure may, according to later estimates, exceed Rs. 4000 crores.

84. The complaint is, however, made that the funds obtained by the banks through the mobilisation of rural resources are mostly diverted to the metropolitan areas and other big urban centres, thereby depriving the rural areas of adequate funds needed by them. It is in the fitness of things, therefore, that a part of these resources are invested in the rural areas for the types of schemes that we have endeavoured to outline in the foregoing paras. We feel that it should not be a difficult task for the nationalised banks etc. to provide additional resources of the order of Rs. 280 crores for investment in these schemes. The remaining sum of Rs. 180 crores is expected to be invested in house building by the people in rural areas. Since an

expenditure of about Rs. 70 to 80 crores per year is, according to some estimates, already being incurred by the rural people in building their houses, our proposals would involve a modest step-up only of this outlay to Rs. 90 crores per annum, out of the average investment of Rs. 115 crores per year on the programme.

85. The Committee is fully conscious that the provision of additional resources of the order of Rs. 280 crores for implementing its interim recommendations will involve a sizeable draft on the Government's budgetary resources, even after taking into account the resources which may be contributed by the public financial institutions and the banking sector. On our rough calculations, there would be the need for about Rs. 280 crores by way of budgetary resources in the course of the next two years for implementing the schemes suggested in this report.

It is also aware of the financial burdens which the Government at the Centre and in the States are required to bear owing to recent developments. Despite these factors, however, the Committee feels that the nation owes it to the unemployed and the under-employed to make the extra sacrifice necessary for implementing the schemes proposed in this report, which will help in better utilisation of the country's human resources and reducing acute social tensions caused by widespread unemployment. The Committee has not as yet gone into the basic question of finances. A study group is studying the financial and fiscal measures. In the meantime, as the Committee is recommending certain measures, it is necessary for it to suggest some areas for raising fresh resources also. While it is not within the competence of this Committee to spell out the details of the fiscal measures required for raising the Government's budgetary resources, it would nevertheless venture to suggest some of these where scope exists for raising fresh resources. For example, it may be possible for the Union Government to levy a special employment surcharge on income and corporation taxes. Further, there could be a levy on commercial advertising. The Government may also examine the possibility of levying an integrated income-tax comprising both the agricultural and non-agricultural incomes, in which provision could be made for a higher limit of exemption in respect of purely agricultural incomes.

86. It is extremely difficult to estimate in precise terms the contribution to the growth of employment that will result from the programmes suggested in the foregoing paragraphs. In many cases, for example in rural housing, it is not possible to have any reliable figures of the present level of employment and hence, of the additional employment likely to be generated. An attempt has, however, been made to give rough estimate of additional employment in respect of some of the programmes earlier. For instance the proposed investment on roads and inland water transport over the next two years is expected to generate employment for 8.50 lakhs while the total employment under the proposed minor irrigation programme should be of 27.50 lakhs comprising roughly 4.5 lakhs skilled and 23 lakhs unskilled workers. Similarly, the direct employment as a result of investment on the rural water supply schemes is expected to be 52,000 out of whom 8,000 will be for engineers and skilled persons and 44,000 for the unskilled workers. In the field of education including adult literacy, the additional direct employment should be 2.8 lakhs—all for the educated persons. Our suggestions for the promotion of self-employment through banks as well as the implementation on a priority basis of the scheme of agro-service centres and the construction programmes in the rural areas relating to minor irrigation, road construction etc. would also provide employment to a large number of engineers and other technical personnel.

87. Though any estimates would suffer necessarily from wellknown limitations, it should be a reasonable guess that direct employment as a result of the programmes suggested by us would be of the order of 4 million over the next two years. It is important to bear in mind, however, that these estimates are based on the essential premise that the resources adequate to meet the original Plan outlay on these programmes are, in fact, found and that additional investment as indicated by us is also made by raising resources from different sources.

It will not be out of place to mention that, besides direct employment, the programme involving construction have generally an indirect employment potential also and a ratio of 1:1.6 is normally taken as the ratio for measuring the direct and indirect employment in such programmes. There should, therefore, be indirect employment also of considerable magnitude as a result of our proposals.

88. It is no doubt true that almost all these programmes as included in the Plan would have generated employment of significant magnitude in the course of their implementation. The likely dimensions of such employment would, however, be smaller than what may have been expected from the size of the Plan provision, since the execution of some of the programmes has been lagging behind and there has been considerable short-fall in the expenditure incurred on them, e.g. the programme of elementary education, road development, etc.

89. Lastly, we would likely to conclude with just a few remarks. We feel it is essential that these programmes which are in the main intended for rural areas, should be implemented in the field in a co-ordinated manner, and that the individual schemes should be dovetailed into the overall development plans for the areas concerned which may have already been drawn up or may be proposed in the near future. Specific surveys should be undertaken for this purpose to collect necessary data in respect of the infra-structure, natural resources, the ground water levels, local raw materials, etc. The information collected through these surveys would facilitate the drawing up of integrated district plans and the adoption of the process of planning from below in subsequent years. It should be ensured that the results achieved from surveys are properly utilised in the preparation of district plans. We understand that a programme to cover 25 districts in backward areas under a scheme of rural engineering surveys has already been prepared for the rest of the Fourth Plan period. In the Committee's view, an integrated survey approach would be useful for ensuring more active and purposive participation in planning by the rural community and the latter's cooperation and collaboration in implementation of the development programmes.

SUMMARY OF RECOMMENDATIONS

90. Our main recommendations may be summarised as follows:—

(1) The Committee would like to reiterate the importance of ensuring that adequate arrangements are made for the marketing of the produce of supplementary occupations as most of the products like milk, eggs and meat are perishable. Studies may be undertaken by the States to examine the suitable type of organisation necessary for the processing and marketing of dairy, poultry and piggery products of small farmers and agricultural labourers.

(Para. 10)

(2) Practical steps need to be taken by the SFDA and MFAL agencies to assist share-croppers and tenants without recorded rights in land by their identification for the purpose of enabling them to obtain short-term and medium-term loans for cultivation as well as supplementary occupations like dairying, poultry farming and piggery.

(Para. 11)

(3) The allocation of funds for each district under the Crash Scheme for Rural Employment should be suitably refixed after taking into account its population, the state of agricultural development and other relevant factors. It is desirable to take up works of reasonable size in some selected parts of the district having regard to the severity of the problem.

(Para. 12)

(4) Pilot projects should be undertaken in small compact areas in selected districts to deal with all aspects of development and they should progressively be able to provide employment in different economic pursuits to every person offering himself for work in that area. Such projects should be undertaken as action-cum-study programmes to highlight the problems faced in their implementation under differing conditions and make available lessons and data for planning a more comprehensive programme of employment in the future.

(Para. 14)

(5) The implementation of the scheme for Agro-Service Centres should be given a high priority as it has potential for providing employment/self-employment to engineering graduates and technicians in the rural areas.

(Para. 15)

(6) As the employment potential of minor irrigation is large, an additional area of about half a million hectares at a total cost of Rs. 100 Crores could be covered during the next two years. This would be in addition to the Fourth Plan programmes already under implementation.

(Para. 23)

(7) In view of the employment and wealth generation potential of rural electrification programme, this programme should be extended to cover 37,000 villages and to provide for 3 lakh pump-sets over and above the existing plan targets, with an investment of Rs. 235 crores.

(Para. 28)

(8) The programme should be so formulated and implemented that the comparatively backward States are assisted to take up the electrification projects selected for these areas, the underlined intention being to bring them upto the national level.

(Para. 28)

(9) We consider that the Central Government in consultation with the State Governments should devise appropriate measures by which any diversion of funds from the roads programme is completely eliminated and the funds earmarked for the programme are in fact spent on it.

(Para. 31)

(10) If a State has been able to fully utilise its Plan provision on roads and if it is in a position to execute further programmes of road construction, we feel that additional sum of Rs. 110 crores should be made available for these programmes during the remaining part of the Fourth Plan.

(Para. 32)

(11) Keeping in view the employment potential of a system of inland water transport, we consider that the Government should take an early decision on the remaining recommendations of the Committee on Inland Water Transport headed by Shri B. Bhagavati.

(Para. 35)

(12) Taking into account the deplorable housing condition in rural areas and the resources generated in these areas by growth of production on the agricultural sector in recent years, efforts should be made to undertake a rate of construction of 0.8 unit per thousand persons or 3.6 lakh new units in 1972-73 and 0.9 unit per thousand persons or 4.1 lakh new units for 1973-74 making a total of 7.7 lakh units at an estimated investment of the order of Rs. 230 crores over the next two years.

(Para. 40)

(13) A large scale programme of construction of rural houses should be formulated, initiated and launched by the Government. Government should provide the necessary institutional framework and actively promote the programme through rural publicity media and the Government agencies operating in the rural areas, e.g., the officials at the block levels, the panchayati raj organisations, etc.

(Para. 44)

(14) We consider that the requirements of the situation demand that there should be in existence in each State a suitable institutional agency to undertake in the rural areas the types of functions which the Housing Boards are at present undertaking in respect of the urban areas, viz. the acquisition, development of land, formulation and execution of housing schemes, etc.

(Para. 45)

(15) We recommend the setting up of a Rural Housing Finance Corporation in each State with the task of providing financial assistance to cooperative societies, panchayati raj, institutions and individuals, for housing projects, individual houses, etc. The Housing and Urban Development Corporation (or a separate Corporation, if necessary) at the Centre may function as the apex organisation for financing rural housing.

(Para. 46)

(16) The L.I.C. should play its part in fostering and promoting the programme of housing in rural areas.

(Para. 47)

(17) The pace of execution of the existing programme of rural water supply should be accelerated and its coverage extended. The programme should be extended to 21,000 more villages, with a total outlay of Rs. 61.55 crores (over and above the current Plan provision of Rs. 125 crores) over a period of two years.

(Para. 52)

(18) The designing of suitable schemes and preparation of plans and estimates for the remaining 41,000 permanently disadvantaged villages should also be taken up immediately.

(Para. 52)

(19) A more comprehensive programme of expansion of primary education should be undertaken in the immediate future. This programme should be suitably phased so as to provide educational facilities for 95% of the children of age group 6-11 and for 45% of the children of the age group 11-14 by 1975-76.

(Para. 57 & 58)

(20) We consider that it is essential to undertake immediately a programme of mass literacy. This programme may be launched in 100 selected dis-

tricts where the number of educated unemployed is comparatively large.

(Para. 64)

(21) In order to generate employment in the industrial field, it is essential that the underutilisation of installed capacity in various industries be reduced to the maximum extent possible. Recently it has been decided that in respect of 54 specified industries additional production to the extent of 100% above their licenced capacity would be allowed subject to certain conditions. We suggest that the cases of other industries should also be examined on their individual merits and they should be allowed similar facilities if this would demonstrably lead to creation of substantial employment.

(Paras. 69 & 70)

(22) To deal with the problem of closure of 'sick' units, the Government should set up an agency charged with the duty of overseeing the economic health and state of affairs obtaining in such industries where closures have taken place or are apprehended. Such an agency should organise a proper system of timely reporting for this purpose and it should keep Government apprised of the developing situation from time to time. The Ministry of Industrial Development should initiate which require to be brought within the scope of such organisation from time to time. It is also important that remedial and timely action by the authorities concerned in the matter may not be stalled on account of the non-availability of requisite financial resources, adequate provision for which should, in our view, exist. We would recommend the setting up of a separate corporation for the purpose with adequate revolving fund.

(Para. 73)

(23) With their increasing resources it should be possible for the banks to play an increasingly purposive and fruitful role in providing assistance to the various categories of self-employed persons. The banking authorities should themselves set targets of sponsoring employment-oriented projects which each branch of a bank should be expected to attain. A suitable portion of the additional resources should be earmarked for such schemes. The amount to be earmarked in a year for these schemes could be reasonably placed at 25 to 30% of the additional resources.

(Para. 75)

(24) In our view the banks should also take a broad and liberal view of the categories of self-employed persons to be eligible for assistance and should extend it to the entire range of the employment field so as not to deny credit facilities to any class of persons wanting to set up as self-employed persons in a profession or business activity.

(Para. 76)

(25) In order that the measures of special credit assistance should be really efficacious, it is also essential that the terms of the loans, e.g., the rate of interest, period of repayment, security margins, etc., should be made softer and take into consideration the requirements and limitations of such borrowing. We consider this a decision on the recommendations of the Committee on Differential Interest Rates should be taken very early by the authorities concerned.

(Para. 77)

(26) Some institutional arrangements should exist to look after the difficulties in the matter of raw materials, working capital marketing etc., in a more

organised and systematic way, on behalf of the entrepreneurs working in a particular locality or industry. For this purpose the entrepreneurs might organise themselves into an association or body which will tackle the problems of the small industries like raw materials, finance, marketing of products, etc. and take them up with the appropriate authorities, where necessary. The formation of such voluntary organisations should be encouraged by the Government.

(Para. 78)

(27) Unemployed persons should be exempted from the payment of application fees. A selective approach may, however, be adopted in regard to the payment of travelling expenses. Only in such cases where an interview is an essential step in the process of selection, unemployed candidates called for an interview should be paid travelling expenses to enable them to appear for it. However, in case a competitive examination/test of all the applicants is an essential step in the process of selection, it should not be necessary to pay travelling expenses to all the candidates.

(Para. 80)

(Sd.)
(B. BHAGAVATI)
Chairman

(Sd.)
(V. L. Gidwani)
Member
(Sd.)
(K. BALACHANDRAN)
Member
(Sd.)
(ASHOK MITRA)
Member
(Sd.)
(M. RAMAKRISHNAYYA)
Member
(Sd.)
(J. C. TALUKDAR)
Member
(Sd.)
(N. SUNDARAM)
Member
(Sd.)
(JYOTIRMOY BOSU)*
Member
(Sd.)
(R. K. SINHA)
Member
(Sd.)
(CHANDRAJIT YADAV)
Member
(Sd.)
(M. ANANDAM)
Member
(Sd.)
(J. S. TILAK)
Member
(Sd.)
(GAUTAM MATHUR)
Member
*Subject to a note at Appendix.
NEW DELHI
February 11, 1972.
(Sd.)
(N. S. PANDEY)
Member-Secretary

APPENDIX AND ANNEXURES TO APPENDIX VII

APPENDIX

Note by Shri Jyotirmoy Bosu, Member

"I wish to submit the following for the interim report: I fully stand for transitional schemes to give work to the unemployed but I am not satisfied that the current schemes as they are being planned and executed will meet the needs of the situation. Although it is not within the terms of reference, the minimum that the Government should do is atleast to guarantee a certain sum for each unemployed person as relief pending the acceptance of "Right to Work" as basic fundamental in our Constitution."

ANNEXURE I

MINISTRY OF LABOUR, EMPLOYMENT AND REHABILITATION DEPARTMENT OF LABOUR AND EMPLOYMENT

(DIRECTORATE GENERAL OF EMPLOYMENT AND TRAINING)

RESOLUTION

New Delhi, the 19th December, 1970

No. MP-10(110)/69.—The problem of unemployment and under-employment in the country, in the rural and urban areas, has been a cause of serious concern to the Government in recent years. The emergence of considerable surpluses among the educated persons in general and technically qualified persons such as engineers and technicians in particular, has added a new dimension to the problem. The Government have now decided to set up a Committee to assess the extent of employment and under-employment and to suggest suitable remedial measures. The Committee will have the following composition:

Chairman

Shri B. Bhagavati, M.L.A., Assam.

Members

1. Shri Jyotirmoy Bosu, Member, Lok Sabha.
2. Shri M. Anandam, Member, Rajya Sabha.
3. Shri V. L. Gidwani, Employment Commissioner, Cabinet Secretariat (Deptt. of Cabinet Affairs).
4. Shri J. C. Mathur, Additional Secretary Department of Agriculture.
5. Shri K. Balachandran, Additional Secretary, Department of Industrial Development.
6. Dr. Ashok Mitra, Chief Economic Adviser, Department of Economic Affairs.
7. Shri B. C. Ganguli, Development and Planning Commissioner and *ex-officio* Secretary, Department of Development and Planning, West Bengal.

8. Shri N. Sundaram, Development Commissioner, Government of Madhya Pradesh.
9. Dr. Gautam Mathur, Professor, Osmania University.

Member-Secretary

10. Shri N. S. Pandey, I.A.S.

The following will be the terms of reference of the Committee:—

- (i) To assess the extent of unemployment and under-employment in all its aspects, taking into account the recommendations made by the Committee of Experts On Unemployment estimates set up by Planning Commission under the Chairmanship of Prof. M. L. Dantwala.
- (ii) To recommend the directions in which the programmes included in the Fourth Five Year Plan could be made more employment oriented in their implementation, with due regard to their timely execution, economy and productivity and to the requirements of rapid economic development.
- (iii) To suggest suitable strategies for employment Generation, both short-term and long term, including technical, financial and fiscal measures in respect of different sectors of the economy, taking into account the mobility of labour and the openings for employment and self-employment in the territory sector as a result of implementation of Plan programmes and various measures initiated by the Government for activating the economy.
- (iv) To suggest specific programmes for promoting productive employment and self-employment of the educated unemployed in general and the unemployed technical personnel such as engineers, technicians, etc., in particular and to suggest measures to rectify the imbalance between the out-turn of educated and technical persons on the one hand and the available employment opportunities on the other.
- (v) To suggest a suitable machinery at the Centre and State levels for a continuous appraisal of the changing employment and manpower situation and assessment of long-term demand and supply.

3. The Committee is requested to submit its report within a period of one year.

4. The Committee will devise its own procedure. It may call for such information and take such evidence as it may consider necessary. The Ministries/Departments of Government of India will furnish such information and documents and render such assistance as may be required by the Committee.

5. The Government of India trust that the State Governments/Administrations of Union Territories, public and private sector undertakings, organisations of employers and workers and all other concerned organisations will extend to the Committee their full co-operation and assistance.

ORDER

ORDERED that the Resolution be published in the GAZETTE of India, Part I, Section 1.

ORDERED that a copy of the Resolution be Communicated to all Ministries/Departments of the Government of India, State Governments/Administrations of Union Territories and all others concerned.

Sd.
(I. D. N. Sahi)
Additional Secretary

N.B.—1. Subsequently Shri M. M. Kusari, Development Commissioner, West Bengal was nominated as Member vice Shri B. C. Ganguli *vide* Resolution No. EEI/200/10/71, dt. 24-5-1971.

2. Later on Shri J. C. Talukdar, Commissioner for Planning & Development and Ex-Officio Secretary to Govt. of West Bengal, Department of Development & Planning was nominated as Member *vice* Shri M. M. Kusari *vide* Resolution No. EEI/200/10/71, dt. 30-8-1971.

3. The following three Members of Parliament have been appointed as additional members of the Committee :—

(i) Shri R. K. Sinha, Member, Lok Sabha } *vide* Resolution
(ii) Shri J. S. Tilak, Member, Rajya Sabha } No. EEI/200/10/71,
dt. 2-12-71.

(iii) Shri Chandrajit Yadav, Member, Lok Sabha } *vide* Resolution
No. EEI/200/10/71, dt. 23-12-71

4. Shri M. Ramakrishnayya, Additional Secretary, Ministry of Agriculture, New Delhi, was appointed as a member *vice* Shri J. C. Mathur *vide* Resolution No. EEI/200/10/71, dt. 23-12-71.

ANNEXURE II

No. of Applicants on the five registers of the employment exchanges

(in '000s)

Sl. No.	Applicants	As on 31st December					As on 30th June	
		1966	1967	1968	1969	1970	1970	1971
1	2	3	4	5	6	7	8	9
1	Total applicants	2619.0	2740.0	3011.6	3423.9	4068.6	3621.3	4494.6
2	Educated Applicants	917.5	1087.4	1309.3	1526.2	1821.6	1625.9	2053.4
	(a) Graduates & above	93.6	121.5	175.4	215.2	276.5	232.3	333.4
	(i) Engineers	4.3	7.0	11.0	13.1	16.5	13.4	16.6
	(ii) Diploma Holders	18.7	28.2	39.6	44.7	47.3	47.3	48.4
	(iii) Others	70.6	86.3	124.8	157.4	212.7	171.6	268.4
	(b) Under-Graduates	204.4	251.8	324.3	401.3	443.9	395.1	529.0
	(c) Matriculates	619.5	714.1	809.6	909.7	1101.2	998.5	119.0

Source : D.G.E.T., Department of Labour and Employment.

ANNEXURE III

Utilisation of Human Labour per hectare on Different Crops

(man-days of eight hrs. each)

District/State 1	Year 2	Paddy		Wheat		Maize 7	Jowar 8	Barley 9	Gram 10	Sugarcane	
		HYV 3	Local 4	HYV 5	Local 6					Planted 11	Ratoon 12
Muzaffarnagar (U.P.)	1967-68		74	61	50(C)	50			32	141	93
	1968-69		69	62	46(C)	46			31	114	99
Ferozepur (Punjab)	1967-68		80	75	52	69					
	1968-69		65	62	51	70					
Deoria (U.P.)	1967-68		91(EU) 96(EI)		66(U) 103(I)			86(U) 96(I)		187(U) 395(I)	105(U) 182(I)
Thanjavur (Tamilnadu)	1967-68 (ADT-27) (Co-25) (Co-25)	132 129 101	104(Kuruvai) 110(Samba) 142(Thaladi)								
Surat & Bulsar (Gujarat)	1967-68		149		63		57(U)				
Cuttack (Orissa)	1967-68		92(K) 215(R)								
Cuddapah (A. Pradesh)	1967-68		123(I)				38(U)				
Nowgong (Assam)	1968-69		72(Winter Sali) 63(Winter Boro) 83(Autumn Ahi)								
Pali (Rajasthan)	1962-63 1964-65				127		38				
Raipur (M.P.)	1962-63 1964-65		99		45						
Alleppy & Quilon (Kerala)	1962-63 1964-65		148 102 (V) 135 (M) 140 (P)								
Karnal Rohtak & Jind. (Haryana)	1963-64					70(I) 52(U)		29(U)		168(PR)	

C.—Combined
E.U.—Early Unirrigated
E.I.—Early Irrigated*
L.U.—Late Unirrigated

U—Unirrigated
I—Irrigated
K—Kharif
R—Rabi
V—Viruppu
M—Mundaka

P.—Punja
P-R.—Planted Ratoon Combined

Source : Farm Management Studies Reports, Directorate of Economic and Statistics, Ministry of Agriculture.

ANNEXURE IV

Inputs of Human Labour per hectare as Related to Intensity of Cropping

Size-group (Hectares)	Intensity of Cropping	Human Labour days per hectare
1	2	3
<i>Muzaffarnagar (U. P.), 1967-68</i>		
Below 2.87	150.52	147.86
2.88-4.71	150.78	114.94
4.72-6.96	146.27	115.62
6.97-10.65	143.87	80.04
10.66 and above.	140.37	
All Farms	144.16	95.34
<i>Deoria (U. P.), 1967-68</i>		
0-10.4	141.42	185.91
1.05-1.79	134.92	150.20
1.80-3.07	132.24	133.07
3.08 and above	120.58	118.88
All Farms	124.91	127.40
<i>Ferozepur (Punjab), 1968-69</i>		
Below 6	144.66	91.10
6-9	133.19	78.68
9-14	132.96	85.86
14-24	126.79	66.80
24 and above	95.95	49.78
Region	123.92	77.41
<i>Surat & Balsar (Gujarat), 1967-68</i>		
Below 2.50	125	240.48
2.51-5.00	119	202.83
5.01-7.50	120	208.97
7.51-10.00	115	183.40
10.01 and above	112	187.44
Over all	118	201.41
<i>Thanjavur (Tamil Nadu), 1967-68</i>		
Upto 1.16	170	238.15
1.17-2.02	163	204.08
2.03-3.05	159	177.35
3.06-5.71	153	182.02
5.71 and above	126	122.97
All groups	145	163.23

Source : Farm Management Studies Reports, Directorate of Economics and Statistics, Ministry of Agriculture.

ANNEXURE V

Fourth Five Year Plan Programmes for Area Under Minor Irrigation

('000 hectares)

State	Fourth Plan Target (1969-74)	1969-70 (Achievement)	1970-71 (Achievement)	1971-72 (Anticipated Achievement)	1972-73 (Target)
1	2	3	4	5	6
Andhra Pradesh	400.00	38.52	48.97	75.00	85.00
Assam	140.00	15.52	30.08	48.54	56.23
Bihar	800.00	80.00	130.20	181.13	169.00
Gujarat	500.00	70.00	103.00	118.00	127.00
Haryana	250.00	40.00	107.00	43.00	30.00
Himachal Pradesh	10.00	1.64	1.66	2.16	2.60
Jammu & Kashmir	60.00	2.40	6.40	12.00	18.00
Kerala	80.00	6.31	7.51	8.80	8.0
Madhya Pradesh	620.00	74.00	104.00	118.00	116.00
Maharashtra	600.00	104.00	87.00	91.00	130.0
Meghalaya	10.00	1.00	1.10	1.50	3.00
Mysore	220.00	17.00	52.00	47.00	52.00
Nagaland	9.00	1.15	1.40	2.00	2.00
Orissa	100.00	10.00	14.00	20.00	27.00
Punjab	600.00	177.00	121.00	122.00	125.0
Rajasthan	300.00	102.00	98.00	44.00	47.00
Tamil Nadu	500.00	100.00	100.00	110.00	95.0
Uttar Pradesh	2,400.00	458.00	487.00	471.00	451.00
West Bengal	250.00	40.00	51.00	50.00	50.00
Union Territories	50.46	9.91	8.30	10.19	11.45
All India	7,200.00	1,348.45	1,560.12	1,575.32	1,605.28

Source : Agriculture Division, Planning Commission.

ANNEXURE VI

Outlay and Targets for Energisation of Additional Pumpsets in the Fourth Five Year Plan as Specified in the Plan Document

Sl. No.	State/Union Territory	Outlay on Rural Electrification During Fourth Plan (Rs. crores)	No. of additional pumps likely to be energised during IV Plan
1	2	3	4
1	Andhra Pradesh	15.00	50,00
2	Assam	10.88	3,200
3	Bihar	36.00	89,000
4	Gujarat	6.00	15,000
5	Haryana	10.00	25,000
6	Himachal Pradesh	1.21	Nil
7	Jammu & Kashmir	1.00	120
8	Kerala	4.50	11,250
9	Madhya Pradesh	20.00	50,000
10	Maharashtra	25.00	1,00,000
11	Mysore	15.50	38,670
12	Nagaland	0.07	Nil
13	Orissa	6.05	1,500
14	Punjab	9.00	22,500
15	Rajasthan	14.00	35,000
16	Tamil Nadu	41.15	1,52,165
17	Uttar Pradesh	61.00	1,50,000
18	West Bengal	10.00	2,410
	TOTAL (States)	286.36	7,45,815
Union Territories :			
1	A. & N. Islands	0.55	Nil
2	Chandigarh	Nil	195
3	D. & N. Haveli	0.34	Nil
4	Delhi	2.50	2,500
5	Goa, Daman and Diu	2.27	100
6	LMA Islands	0.18	Nil
7	Manipur	0.79	Nil
8	N.E.F.A.	1.40	Nil
9	Pondicherry	Nil	1,300
10	Tripura	0.30	90
	TOTAL (U. Ts)	8.33	4,185
	TOTAL (ALL INDIA)	294.59	7,50,000
	R.E.C. Financing Programme	150.00	5,00,000
	GRAND TOTAL	444.69	12,50,000

Source : Central Water & Power Commission.

ANNEXURE VII

Villages Electrified

States/Union Territories	Total No. of villages	Number electrified as on			Percentage of villages electrified*
		31-3-71	30-9-71	31-10-71	
1	2	3	4	5	6
Andhra Pradesh	27,084	8,078	8,270	8,404	31.03
Assam	25,702	687	707 ^b	707 ^b	2.75
Bihar	67,665	7,822	7,981	7,981 ^e	11.79
Gujarat	18,584	3,907	4,225*	4,275*	23.00
Haryana	6,669	6,669	6,669	6,669	100.00
Himachal Pradesh	13,060	4,073	4,162	4,162 ^e	31.87
Jammu & Kashmir	6,559	685	685 ^c	685 ^c	10.44
Kerala	1,573	1,196	1,209	1,219	77.50
Madhya Pradesh	70,414	6,906	7,759 ^d	7,759 ^d	11.02
Maharashtra	35,851	12,197 [†]	12,700 [†]	12,794 [†]	35.69
Mysore	26,377	8,328	8,602	8,776	33.27
Nagaland	814	68	75	75	9.21
Orissa	46,466	1,261 ^a	2,261	1,261	2.71
Punjab	11,947	6,179	6,260	6,267	52.46
Rajasthan	32,241	3,067	3,394	3,576	11.09
Tamil Nadu	14,124	11,166	11,699	11,844	83.86
Uttar Pradesh	1,12,624	20,719	21,156	21,156 ^e	18.78
West Bengal	38,454	2,966	3,035	3,035 ^e	7.89
TOTAL (States)	5,56,208	1,05,974	1,09,849	1,10,645	19.89
<i>Union Territories :</i>					
A. & N. Islands	399	21	6	26	6.52
Chandigarh	31	23	23	23	74.19
D. & N. Haveli	72	12	13	13	18.06
Delhi	276	276	276	276	100.00
Goa, Daman & Diu	245	127	135	135	55.10
L. M. A. Islands	10	8	8	8	80.00
Manipur	1,866	188	188	188	10.08
N.E.F.A.	2,451	46	46	46	1.88
Pondicherry	388	342	360	362	93.30
Tripura	4,932	66	68	68	1.38
TOTAL (U. Ts.)	10,670	1,109	1,143	1,145	10.73
TOTAL (All-India)	5,66,878	1,07,083	1,10,992	1,11,790	19.72

Source : Central water and Power Commission.

Figures relate to 1961 Census.

Figures as on 30-9-71 and 31-10-71 are provisional.

†- Includes 65 Nos. electrified by licensees.

*- Includes 95 Nos. electrified by licensees.

a- As on 28-2-1971

b- As on 30-6-71

c- As on 31-3-71

d- As on 31-8-71

e- As on 30-9-1971

ANNEXURE VIII

Ministry of Education and Social Welfare Scheme of providing employment to the educated unemployed.

With the object of providing employment to the educated unemployed the Ministry of Education and Social Welfare has formulated a scheme under which assistance is being provided to the States/Union Territories for the appointment of additional primary teachers and assistant inspectors of schools; distributing free text books and stationery to children provision of midday meals to additional children and introduction of work-experience in middle schools.

The details of the programmes envisaged under the scheme are as follows:—

1. Appointment of 30,000 primary school teachers at the average cost of Rs. 275 p.m. for 4 months during 1971-72. A sum of Rs. 3.30 crores has been provided for it. In the appointment of teachers under the scheme preference will be given to trained matriculates.
2. Under the scheme it has been proposed that one assistant inspector of schools may be appointed for every 125 teachers. For appointing 240 assistant inspectors of schools at the rate of Rs. 500 per month for 4 months during 1971-72 amount of Rs. 4.8 lakhs has been allocated. Primary school teachers and assistant inspector of schools will draw the salary and allowances as are admissible to that of similar category in the State/Union Territory. The statewide distribution of teachers and assistant inspectors may be seen at annexure I*. State/Union Territories which do not have large scale unemployment among matriculates have been excluded.
3. It is well known that the girls and children of scheduled castes and scheduled tribes constitute the bulk of the non-attending children. It is also recognised that it is necessary to provide incentives in the form of free textbooks and stationery in order to promote and sustain the enrolment of such children. For the supply of free text-books and stationery the average cost calculated is Rs. 5 per annum per child. During the year 1971-72 the average cost per child has been taken as Rs. 3 and amount of Rs. 27 lakhs has been provided for supply to 9 lakhs children. The allocation of funds to different states for the purpose is as in Annexure II*.
4. Supply of midday meals has proved to be a good incentive for increasing enrolment. In the border states of Assam, Jammu & Kashmir, Nagaland, Himachal Pradesh and Union Territories, this has not been introduced so far as the CARE organisation does not operate in these areas. An amount of Rs. 20 lakhs has been set apart under the present scheme for supply of feeding material to these States. The administrative and transportation costs may be borne by the

States and Union Territories from their own resources as is being done in other States. Where CARE programme is already in operation, the expansion of the programme has lagged behind due to want of resources for meeting the administrative and other expenses. It is proposed to assist these States/Union Territories on the assumption that additional feeding material will be received from foreign agencies as at present. To meet additional administrative and transportation costs during the remaining period of 1971-72 at Rs. 3 per pupil for 8.6 lakhs additional pupils an amount of Rs. 25.3 lakhs has been provided. For 1972-73 and 1973-74 the cost has been calculated @ Rs. 5 per annum per child. The Statewise distribution of the financial assistance may be seen at annexure III*.

5. It is recognised that one of the reasons for the present plight of the educated unemployed is their liking for white collar jobs and ignorance of the common skills needed in every-day life. This can be remedied to a large extent by introducing in the schools a programme of work experience as suggested by the Kothari Commission. The programme can also provide employment as introduction to agriculture graduates, I. T. I. and Polytechnic trained persons at present unemployed. It is proposed to introduce the work-experience programme in 1,000 middle school/and or middle departments of high school during the current year. At the average monthly emoluments of Rs. 350 p.m. per teacher per school amount of Rs. 14,00,000 for 4 months during 1971-72 has been provided. In addition to that a sum of Rs. 3,000 per school for the cost of equipment and work-shed has been provided. Balance will be met by the State Government and/or local community. As the schools taken up during 1971-72 are not likely to be fully equipped during 1971-72 amount of Rs. 20 lakhs for this year has been earmarked and the rest i.e. Rs. 10 lakhs will be made available in 1972-73. The statewide distribution of the assistance may be seen at annexure IV*.

The criteria on which the distribution of financial assistance to States/Union Territories have been based are:—

- (i) The position of the number of educated unemployed in each State/Union Territory, and
- (ii) its comparative backwardness.

The Central assistance under the scheme will be available only if the States/Union Territories utilise to the full outlays earmarked under elementary education in the State Annual Plans. The Assistance to each State will be determined on the basis of physical targets envisaged under the scheme. Thus the Central assistance will be available only for the numbers of teachers appointed during the year over and above the teachers' posts sanctioned under its plan and non-plan budgets. The central assistance will be in the non-plan sector and will be available upto 1973-74 i.e. Fourth Five Year

*Not attached.

Plan. After that States/Union Territories will have to provide funds for the continuation of the scheme.

The following provision has been approved by the Ministry of Finance and Planning Commission.

1971-72	Rs.	441.6 lakhs.
1972-73	Rs.	1194.4 lakhs.
1973-74	Rs.	1184.4 lakhs.
TOTAL	Rs.	2820.4 lakhs.

Sanction to the States/Union Territories for implementing the scheme has been issued on 8-10-71.

ANNEXURE IX

Statement—Enrolment in Classes I—V (1970-71—1975-76)

Sl. No.	State	Enrolment in Classes I—V in 1970-71‡	Percentage of enrolment in Classes I—V to total Population in the Age Group 6-11 in 1970-71*	Target of estimated Enrolment necessary in Classes I—V in 1975-76 to cover the 95% Population of the Age Group 6-11†
1	2	3	4	5
1	Nagaland	73	122.8	62
2	Kerala	3321	116.6	3055
3	Tamil Nadu	5132	107.6	4775
4	Maharashtra	6433	94.0	7311
5	Uttar Pradesh	10718	86.6	12827
6	Gujarat	3288	85.9	4172
7	Mysore	3450	85.1	4199
8	Andhra Pradesh	4383	77.7	5873
9	West Bengal	4773	74.4	6878
10	Orissa	2074	71.9	3062
11	Jammu & Kashmir	375	70.9	551
12	Haryana	1027	69.5	1668
13	Punjab	1431	66.0	2447
14	Assam	1561	65.9	2629
15	Bihar	5009	62.2	3440
16	Rajasthan	2205	58.1	4071
17	Madhya Pradesh	3206	55.7	5906
	INDIA	60112	79.6	79036

Sources : ‡Report of Population Projection Committee.

*The enrolment in classes I—V includes age group of below 6 and above 11. Hence these values.

‡Planning Commission.

ANNEXURE X

Statement—Enrolment in Classes VI—VIII (1970-71—1975-76)

(In Thousands)

Sl. No.	State	Enrolment in Classes VI—VIII in 1970-1971*	Percentage of Enrolment in Classes VI—VIII to the total Population in the age group 11—14 in 1970-71	Target of Enrolment necessary in classes VI—VIII in 1975-76 to cover 45% of the total population of the age group 11—14 †
1	2	3	4	5
1	Kerala	1069	70.9	788
2	Nagaland	21	65.8	16
3	Tamil Nadu	1409	51.9	1279
4	Jammu & Kashmir	129	48.1	142
5	Haryana	350	47.8	420
6	Maharashtra	1637	46.0	1904
7	Punjab	470	43.7	617
8	Gujarat	837	42.7	1068
9	Mysore	749	34.2	1093
10	West Bengal	1135	34.0	1759
11	Assam	361	29.6	652
12	Andhra Pradesh	8690	28.4	1535
13	Uttar Pradesh	1862	27.8	3345
14	Rajasthan	518	26.1	1097
15	Orissa	395	25.9	795
16	Madhya Pradesh	749	23.7	1548
17	Bihar	965	21.9	2188
	INDIA	14160	34.9	20574

Source ; *Planning Commission.

†Report of Population Projection Committee.

*Figures are estimated.

ANNEXURE XI

Statement—Estimated cost involved in the expansion Schemes under Education; for generating additional employment opportunities

Sl. No.	Programme	Average Unit Cost in Rs.	Total cost during remaining two years of the Fourth Plan (Rs. in crores)		
			1972-73	1973-74	Total
1	2	3	4	5	6
1	Additional Annual enrolment of 38 lakh children of the age group 6-11 will create employment opportunities for 0.95 lakh teachers.	Rs. 60 per student per annum	22.80	45.60	68.40
2	Additional enrolment of 13 lakh (9 for regular classes and 4 for part-time education) children will create employment opportunities for 0.30 lakh teachers and also for other educated unemployed.	Rs. 80 per student per annum for regular classes and Rs. 40 per student per annum for part-time classes.	8.80	17.60	26.40
3	Provision for 1,000 school Inspectors at the rate of one Inspector for every 125 additional teachers.	Rs. 400 per month per Inspector	0.48	0.96	1.44
4	Provision for school buildings	<i>Ad-hoc</i>	10.00	20.00	30.00
5	Adult literacy	Rs. 70 per teacher per month	2.50	2.50	5.00
			44.58	86.66	131.24
			(rounded to 130 crores)		

Explanatory Notes.—(i) The average annual cost, based on average salary of Rs. 200 per month per teacher plus 10 per cent old age benefits etc. and 10 per cent non-teaching cost and 1 : 40 teachers pupil ratio in lower primary stage comes to Rs. 72 per student in lower primary stage.

In actual practice, however, this cost differs from State to State and in fact in the educationally backward States like U.P. and Bihar, where there is a great scope for the expansion, the average cost is substantially low. Therefore, average annual cost of Rs. 60 per additional student has been taken as the basis for working out the total cost involved in the education of 38 lakh annual additional children of the age group 6-11.

(ii) The average annual cost per student in upper primary stage, based on the formula of 50% more cost than in lower primary stage and 1 : 30 teacher pupil ratio comes to Rs. 105 but on the basis of the very low rate of teaching cost in educationally backward States, in which larger number of additional children of the age group 11-14 are to receive education, the average annual cost assumed to be Rs. 80. For part-time education, where the cost is estimated to be 50% less than in regular classes, the average annual cost per additional child is assumed to be Rs. 40.

(iii) The costs related to total costs and includes the cost of the students brought under the programmes in the previous year (s).

ANNEXURE XII

Summary of the Financial Outlays Proposed

Sl. No.	Scheme/Programme	4th Plan Outlay (in crores)	Proposed outlay for 1972-74 (in crores)	Outlay to be met out of 4th Plan outlay	Net additional requirement in 1972-74 (in crores)	Break-up of net additional outlay (in crores) during 1972-74			Remarks
						Govt. budgetary resources	Financial institutions	Private investment	
1	2	3	4	5	6	7	8	9	10
1	Minor Irrigation	@1470.00	@675.00	@575.00	100.00	..	100.00	..	@Inclusive of institutional investment and farmer's contribution.
2	Rural Electrification	*520.00	*325.00	90.00	*235.00	100.00	135.00	..	*Inclusive of institutional investment.
3	Road & Inland Water Transport	871.00	587.00	477.00	110.00	110.00	..	..
4	Construction of Rural Housing . . . . .	..	230.00	..	230.00	20.00	30.00	180.00	
5	Rural Water Supply	125.00	116.00	51.00	65.00	50.00	15.00	..	
6	Education	243.04	130.00	130.00	..	..	..	..
	TOTAL	3229.04	2063.00	1323.00	740.00	280.00	280.00	180.00	

APPENDIX VIII

(Para 4.6)

Studies Recommended by the Advisory Committee of Economists*

<i>Studies</i>	<i>Recommendations</i>
1. Concepts and definitions and studies on labour force characteristics.	A comprehensive labour force survey may be taken up in the 27th round of the National Sample Survey.
2. Estimates of employment generation.	Three groups might be set up to undertake studies on employment generation in selected sectors, namely (i) construction including roads, houses canals and dams, etc. (ii) industries (selected large scale industries, small-scale industries, agro-industries) and (iii) impact of mechanisation in agriculture.
3. Impact studies on command areas of major irrigation projects.	These studies will primarily have to be undertaken by the State governments, who can be given necessary guidance by the universities and the Institute for Applied Manpower Research. Selected studies may also be entrusted to the universities.
4. Studies on green Revolution including impact of mechanisation.	The group (iii) suggested under (2) above might deal with this.
5. Studies on choice of technology.	A study of the employment implication of the technical mix at the Nagarjuna Sagar Project may be taken up.
6. Studies of manpower mobility and rural-urban migration during slack and peak agricultural seasons.	The NSS Organisation might undertake suitable studies.
7. Income and Associated Studies.	The NSS Organisation might undertake suitable studies either on the basis of existing data or by organising collection of fresh data.
8. Analysis of agricultural wage data.	The agricultural wage data should be collected on a more systematic basis by the Directorate of Economics and Statistics, Ministry of Agriculture. The Directorate also should attempt a detailed analysis of the data by various occupational categories in different districts, so as to study the seasonal variations in respect of different categories of agricultural workers and for various agricultural operations.
9. Studies on impact of special programmes such as MFAL, SFDA, etc.	While side by side with the implementation of these programmes there would be a concurrent evaluation by the State Bureaux of Economics and Statistics and the long-term aspects would be investigated by the Programme Evaluation Organisation, it was felt that there was scope for some studies by agro-economic research centres as well as selected universities on the employment implications of these special programmes in selected areas.
10. Fiscal measures for promoting employment.	A study might be taken up.
11. Studies regarding planning at the local level and preparation of integrated district Plans.	Selected studies should be undertaken by the Government in close association with universities and research institutions.

*The Planning Commission Constituted an Advisory Committee of Economists in April, 1971 to make recommendations for studies on different aspects of employment.

APPENDIX IX

(Para 4.23)

State-wise percentage of 'workers', of 'non-workers' with secondary activity, of 'other non-workers*', and of their total to total population, classified by sex and rural-urban residence (1971 Census)

(a) MALES

State/Union Territory	RURAL				URBAN				ALL AREA			
	Workers	Non-workers with secondary activity	Other non-workers	Total Col. (2) to Col. (4)	Workers	Non-workers with secondary activity	Other non-workers	Total Col. (6) to Col. (8)	Workers	Non-workers with secondary activity	Other non-workers	Total Col. (10) to Col. (12)
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Andhra Pradesh	60.20	0.10	0.30	60.60	47.68	0.10	1.36	49.14	57.75	0.10	0.51	58.36
2. Assam	48.77	0.02	0.91	49.70	50.14	1.01	1.87	52.02	48.90	0.01	1.00	49.91
3. Bihar	52.96	1.00	1.07	54.03	47.80	0.01	3.02	50.83	52.40	0.01	1.28	53.69
4. Gujarat	52.77	0.05	0.36	53.18	47.19	0.09	1.67	48.95	51.17	0.06	0.74	51.97
5. Haryana	47.09	0.00	0.85	47.94	46.24	0.04	1.26	47.54	46.93	0.01	0.93	47.87
6. Himachal Pradesh	51.53	0.04	0.78	52.35	54.54	0.00	1.74	56.28	51.77	0.04	0.85	52.66
7. Jammu & Kashmir	53.21	..	0.40	53.61	47.27	0.02	1.52	48.81	52.19	0.04	0.49	52.72
8. Kerala	44.66	0.10	2.30	47.06	43.33	0.15	3.96	47.44	44.44	0.10	2.58	47.12
9. Madhya Pradesh	55.42	0.05	0.48	55.95	46.04	0.05	1.88	47.97	53.83	0.05	0.72	54.60
10. Maharashtra	52.49	0.06	0.62	53.17	50.62	0.10	2.72	53.44	51.87	0.07	1.32	53.26
11. Mysore	56.50	0.06	0.22	56.78	47.96	0.06	1.10	49.12	54.37	0.07	0.44	54.88
12. Nagaland	54.26	0.00	0.12	54.38	69.30	..	..	69.30	56.16	0.00	0.11	56.27
13. Orissa	55.93	0.16	0.58	56.67	50.42	0.15	1.07	51.64	55.44	0.16	0.62	56.22

APPENDIX IX—contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
4. Punjab	53.47	0.01	0.48	53.96	49.42	0.01	0.94	50.37	52.50	0.01	0.59	53.1
15. Rajasthan	53.80	0.03	0.23	54.06	44.49	0.04	1.15	45.68	52.13	0.03	0.39	52.55
16. Tamil Nadu	58.37	0.05	0.70	59.12	50.53	0.03	3.02	53.58	55.96	0.04	1.41	57.41
17. Uttar Pradesh	53.55	0.00	0.49	54.04	48.40	0.00	1.40	49.80	52.80	0.01	0.62	53.43
18. West Bengal	48.54	0.02	0.91	49.47	49.87	0.02	3.72	53.61	48.89	0.02	1.65	50.56
19. Andaman & Nicobar	60.49	0.37	0.19	61.05	66.10	0.01	2.37	68.48	61.84	0.29	0.71	62.84
20. Chandigarh	57.46	0.00	..	57.46	53.26	0.00	1.05	54.31	53.66	0.01	0.95	54.62
21. Dadra & Nagar Haveli	55.43	1.35	0.27	57.05	..	..	..	..	55.43	1.35	0.27	57.05
22. Delhi	43.92	0.21	1.74	45.87	51.14	0.03	1.31	52.48	50.41	0.03	1.36	51.80
23. Goa, Daman & Diu	46.53	0.35	2.98	49.86	50.17	0.17	2.44	52.76	47.53	0.30	2.84	50.6
24. L. M. & A. Islands	38.43	2.37	0.12	40.92	..	..	..	..	38.43	2.37	0.12	40.92
25. Manipur	46.71	0.03	0.34	47.08	38.93	0.00	1.12	40.05	45.68	0.02	0.45	46.15
26. Meghalaya	54.34	0.02	0.14	54.50	47.08	0.00	0.74	47.82	53.36	0.02	0.22	53.60
27. NEFA	61.40	00.0	5.53	66.93	61.12	0.00	26.95	88.07	61.39	0.00	6.35	67.74
28. Pondicherry	51.66	0.01	1.81	53.48	44.11	0.00	1.71	45.82	48.49	0.00	1.77	50.26
29. Tripura	49.90	0.00	0.60	50.50	41.15	0.00	3.33	44.48	49.22	0.00	0.81	50.03
All India	53.55	0.04	0.66	54.25	48.62	0.05	2.18	50.85	52.53	0.04	0.98	53.55

*This includes the residual category of non-workers who reported to be seeking work and were not classified in the other specific categories of non-workers viz. students, household workers, rentiers, pensioners, beggars and vagrants and dependents.

(-) denotes 'Nil'

APPENDIX IX—*contd.*

(b) FEMALES

State/Union Territory	RURAL				URBAN				ALL AREAS			
	Workers	Non-workers with secondary activity	Other* non-workers	Total Col. (2) to Col. (4)	Workers	Non-workers with secondary activity	Other* non-workers	Total Col. (6) to Col. (9)	Workers	Non-workers with secondary activity	Other* non-workers	Total Col. (10) to Col. (12)
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Andhra Pradesh	28.59	3.10	0.07	31.76	11.05	0.55	0.29	11.89	25.24	0.67	0.11	28.02
2. Assam	6.31	0.05	0.25	6.61	4.25	0.07	0.44	4.76	6.15	0.06	0.26	6.47
3. Bihar	11.00	0.04	0.13	11.17	6.42	0.03	0.26	6.71	10.58	0.05	0.14	10.77
4. Gujarat	12.51	1.07	0.04	13.62	5.74	0.58	0.13	6.45	10.65	1.13	0.06	11.84
5. Haryana	3.17	0.05	0.20	3.42	3.17	0.08	0.31	3.57	3.17	0.05	0.22	3.44
6. Himachal-Pradesh	22.37	0.21	0.22	22.80	7.51	0.10	0.87	8.48	21.46	0.20	0.26	21.92
7. Jammu & Kashmir	5.17	0.77	0.06	6.00	3.45	0.15	0.21	3.81	4.86	0.67	0.08	5.61
8. Kerala	14.29	0.63	0.99	15.91	10.50	0.70	1.75	12.91	13.68	0.63	1.12	15.43
9. Madhya Pradesh	22.01	1.72	0.14	23.87	7.62	0.47	0.26	8.35	19.77	1.53	0.16	21.46
10. Maharashtra	26.56	2.14	0.03	28.73	9.16	0.56	0.37	10.03	21.49	1.88	0.13	23.70
11. Mysore	16.82	0.78	0.05	17.65	9.70	0.38	0.28	10.36	15.15	0.67	0.10	15.92
12. Nagaland	50.22	0.00	0.18	50.39	9.01	—	—	9.01	47.42	0.00	0.17	47.59
13. Orissa	7.62	2.93	0.05	10.60	7.10	3.63	0.08	10.81	7.58	2.98	0.06	10.62
14. Punjab	1.26	0.01	0.07	1.34	3.01	0.02	0.20	3.23	1.67	0.01	0.10	1.78
15. Rajasthan	11.47	0.48	0.03	11.98	5.40	5.05	0.13	10.58	10.42	0.46	0.04	10.92

APPENDIX IX—contd.

	1	2	3	4	5	6	7	8	9	10	11	12	13
16. Tamil Nadu	19.88	1.31	0.26	21.45	10.10	6.30	0.83	11.23	16.96	1.01	0.43	18.40	
17. Uttar Pradesh	9.52	0.02	0.15	9.69	4.07	0.09	0.17	4.33	8.78	0.04	0.15	8.97	
18. West Bengal	5.54	0.10	0.13	5.77	4.74	0.01	0.44	4.29	5.36	0.08	0.20	5.64	
19. Andaman & Nicobar	4.09	3.92	—	8.01	6.19	1.06	—	7.25	4.53	3.32	0.00	7.85	
20. Chandigarh	3.33	0.00	—	3.33	6.65	0.13	0.19	6.97	6.35	0.09	0.18	6.62	
21. Dadra & Nagar Haveli	38.95	13.70	—	52.65	—	—	—	—	38.95	13.70	—	52.65	
22. Delhi	5.32	0.05	0.16	5.53	5.13	0.05	0.35	5.53	5.15	0.05	0.33	5.53	
23. Goa, Daman & Diu	17.16	2.62	0.66	20.44	11.45	1.59	0.38	13.42	15.73	2.37	0.59	18.91	
24. L. M. & A. Islands	13.54	18.94	0.13	32.61	—	—	—	—	13.54	18.94	0.13	32.61	
25. Manipur	27.22	0.11	0.28	27.61	18.00	—	0.14	18.14	26.00	0.10	0.26	26.36	
26. Meghalaya	39.20	0.43	—	39.63	14.08	—	0.83	40.91	39.26	0.37	0.10	39.73	
27. NEFA	53.80	0.00	1.69	55.49	11.12	—	18.16	29.28	52.80	0.00	2.08	54.88	
28. Pondicherry	14.65	0.96	0.15	15.76	7.29	0.51	0.40	8.20	11.55	0.66	0.26	12.57	
29. Tripura	5.26	0.13	0.03	5.42	5.42	—	0.34	5.76	5.28	0.12	0.05	5.45	
All India	14.55	1.00	0.15	15.70	7.37	0.36	0.39	8.12	13.15	0.91	0.20	14.26	

*This includes the residual category of non-workers who reported to be seeking work and were not classified in the other specific categories of non-workers viz. students, household workers, rentiers, pensioners, beggars and vagrants and dependents.

(—) denotes 'Nil'.

APPENDIX IX—*contd.*

(c) PERSONS

State/Union Territory	RURAL				URBAN				ALL AREAS			
	Workers	Non-workers with secondary activity	Other* non-workers	Total Col. (2) to Col. (4)	Workers	Non-workers with secondary activity	Other* non-workers	Total Col. (6) to Col. (8)	Workers	Non-workers with secondary activity	Other* non-workers	Total Col. (10) to Col. (12)
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Andhra Pradesh	44.52	1.59	0.19	46.30	29.83	0.44	0.84	31.11	41.68	1.37	0.31	43.36
2. Assam	28.47	0.04	0.59	29.10	30.41	0.04	1.26	31.71	28.63	0.04	0.65	29.32
3. Bihar	32.25	0.03	0.61	32.89	29.34	0.01	1.79	31.14	31.96	0.03	0.72	32.71
4. Gujarat	33.14	0.68	0.20	34.02	27.61	0.33	0.94	28.88	31.58	0.58	0.41	32.57
5. Haryana	26.53	0.01	0.55	27.09	26.42	0.06	0.83	27.31	26.51	0.02	0.60	27.13
6. Himachal Pradesh	37.00	0.13	0.50	37.63	34.38	0.05	1.36	35.79	36.82	0.12	0.56	37.50
7. Jammu & Kashmir	30.67	0.39	0.16	31.22	27.06	0.08	0.91	28.05	30.01	0.38	0.25	30.64
8. Kerala	29.30	0.37	1.64	31.31	26.93	0.40	2.86	30.19	28.91	0.37	1.84	31.12
9. Madhya Pradesh	39.08	0.86	0.31	40.25	28.17	0.25	1.13	29.55	37.30	0.77	0.45	38.52
10. Maharashtra	39.60	1.24	0.33	41.17	31.95	0.28	1.66	33.89	37.21	0.95	0.74	38.90
11. Mysore	36.93	0.41	0.14	37.48	29.69	0.21	0.71	30.61	35.17	0.36	0.28	35.81
12. Nagaland	52.31	0.00	0.15	52.46	50.09	—	—	50.09	52.09	0.00	0.14	52.23
13. Orissa	31.74	1.55	0.31	33.60	30.56	0.53	0.62	31.71	31.64	1.47	0.34	33.45
14. Punjab	29.05	0.01	0.29	29.35	28.01	0.02	0.60	28.63	28.81	0.01	0.36	29.18
15. Rajasthan	33.49	0.35	0.13	33.87	26.25	0.15	0.68	27.08	32.22	0.22	0.23	32.67

16.	FamilNadu	39.21	0.67	0.48	40.36	30.83	0.16	1.95	32.94	36.67	0.51	0.93	38.11
17.	Uttar Pradesh	32.77	0.01	0.33	33.11	28.41	0.05	0.84	29.30	32.16	0.02	0.40	32.58
18.	West Bengal	27.69	0.06	0.53	28.28	30.45	0.02	2.31	32.78	28.37	0.05	0.97	29.39
19.	Andaman & Nicobar Islands	37.83	1.79	0.11	39.73	44.69	0.55	1.52	46.56	39.39	1.48	0.43	41.50
20.	Chandigarh	35.23	0.00	—	35.23	39.21	0.04	0.69	33.94	33.40	0.04	0.62	34.06
21.	Dadra & Nagar Haveli . .	47.16	7.55	0.13	54.84	—	—	—	—	47.16	7.55	0.13	54.84
22.	Delhi	26.31	0.01	1.03	27.35	30.72	0.04	0.88	31.64	30.27	0.03	0.90	31.20
23.	Goa, Daman & Diu.	31.66	1.51	1.80	34.97	31.90	0.85	1.46	34.21	31.72	1.34	1.71	34.77
24.	L. M. & A. Islands	26.11	10.56	0.13	36.80	..	..	..	..	26.11	10.56	0.13	36.80
25.	Manipur	37.05	0.06	0.31	37.42	28.55	0.00	0.64	29.18	35.92	0.41	0.36	36.69
26.	Meghalaya	46.91	0.22	0.07	47.20	31.61	0.00	0.78	32.39	44.92	0.09	0.16	45.17
27.	NEFA	57.75	0.00	3.69	61.44	43.24	0.00	23.81	67.05	57.30	0.00	4.32	61.62
28.	Pondicherry	33.29	0.47	0.99	34.75	25.73	0.26	1.06	27.05	30.11	0.38	1.02	31.51
29.	Tripura	28.27	0.06	0.32	28.65	23.94	0.00	1.89	25.83	27.93	0.06	0.44	28.43
	All India	34.53	0.51	0.41	35.45	29.56	0.19	1.36	31.11	33.54	0.44	0.60	34.59

*This includes the residual category of non-workers who reported to be seeking work and were not classified in the other specific categories of non-workers viz. students, household workers, rentiers, pensioners, beggars and vagrants and dependents.

(—) denotes 'Nil'.

APPENDIX X

(Para 4.23)

State-wise percentages of 'workers', of 'persons seeking work' and of their total to total population, classified by sex and rural-urban residence (1961 Census)

(a) MALES

State/Union Territory	Rural			Urban			All areas		
	Workers	Per- sons seek- ing work	Total Col.(2) + Col.(3)	Workers	Per- sons seek- ing work	Total Col.(5) + Col.(6)	Workers	Per- sons seek- ing work	Total Col.(8) + Col.(9)
1	2	3	4	5	6	7	8	9	10
1. Andhra Pradesh	64.32	0.13	64.45	52.40	1.10	53.50	62.22	0.30	62.52
2. Assam	53.98	0.49	54.47	55.36	0.92	56.28	54.10	0.52	54.62
3. Bihar	56.00	0.19	56.19	51.74	1.35	53.09	54.40	0.30	54.70
4. Gujarat	55.30	0.24	55.54	48.37	1.66	50.03	53.47	0.62	54.09
5. Jammu & Kashmir	59.28	0.24	59.52	50.78	0.92	51.70	57.83	0.36	58.19
6. Kerala	47.42	1.43	48.85	45.98	2.81	48.79	47.20	1.64	48.84
7. Madhya Pradesh	61.58	0.05	61.63	52.44	0.67	53.11	60.21	0.14	60.35
8. Maharashtra	58.07	0.24	58.31	54.83	2.17	57.00	57.09	0.82	57.91
9. Mysore	60.40	0.11	60.51	51.57	1.20	52.77	58.38	0.36	58.74
10. Orissa	61.02	0.17	61.19	57.22	1.02	58.24	60.76	0.23	60.99
11. Punjab	53.44	0.40	53.84	50.93	1.17	52.10	52.92	0.56	53.48
12. Rajasthan	60.13	0.06	60.19	48.04	0.58	48.62	58.14	0.14	58.28
13. Tamil Nadu	62.19	0.32	62.51	53.16	2.09	55.25	59.74	0.80	60.54
14. Uttar Pradesh	59.20	0.11	59.31	51.74	0.91	52.65	58.19	0.22	58.41
15. West Bengal	53.46	1.04	54.50	55.38	4.08	59.46	53.98	1.86	55.84
16. Andaman & Nicobar Is- lands.	64.27	0.19	64.46	66.17	1.50	67.67	67.80	0.49	68.29
17. Delhi	47.82	1.23	49.05	52.80	1.41	54.21	52.25	1.39	53.64
18. Himachal Pradesh	63.47	0.13	63.60	56.44	0.81	57.25	63.11	0.16	63.27
19. Laccadive, Minicoy & Aminidivi Islands.	51.60	—	51.60	—	—	—	51.60	—	51.60
20. Manipur	47.93	0.18	48.11	40.99	2.57	43.56	47.31	0.40	47.71
21. Tripura	55.24	0.29	55.53	46.84	1.54	48.38	54.47	0.40	54.87
22. Dadra & Nagar Haveli	62.04	—	62.04	—	—	—	62.04	—	62.04
23. Goa, Daman & Diu	51.77	0.23	52.00	48.75	0.29	49.04	51.27	0.24	51.51
24. Pondicherry	57.13	1.65	58.78	48.74	2.70	51.44	55.14	1.90	57.04
25. NEFA	80.90	—	80.99	—	—	—	80.99	—	80.99
26. Nagaland	61.04	0.03	61.07	52.13	0.43	52.56	60.50	0.05	60.55
All India	58.22	0.30	58.52	52.40	1.76	54.15	57.12	0.55	57.67

(—) Denotes 'Nil',

APPENDIX X—contd.

(b) FEMALES

State/Union Territory	Rural			Urban			All areas		
	Workers	per- sons seek- ing work	Total Col. (2) + Col. (3)	Workers	Per- sons seek- ing work	Total Col (5) + Col.(6)	Workers	Per- sons seek- ing work	Total Col. (8) + Col. (9)
1	2	3	4	5	6	7	8	9	10
1. Andhra Pradesh	45.99	0.01	46.00	18.74	0.07	18.81	41.32	0.02	41.34
2. Assam	32.41	0.17	32.58	9.88	0.10	9.98	30.91	0.17	31.08
3. Bihar	28.49	0.01	28.50	10.40	0.07	10.47	27.12	0.02	27.14
4. Gujarat	34.15	0.01	34.16	9.24	0.04	9.28	27.89	0.01	27.90
5. Jammu & Kashmir	29.51	0.01	29.52	5.78	0.47	6.25	25.63	0.09	25.72
6. Kerala	20.88	0.36	21.24	13.00	0.69	13.69	19.71	0.41	20.12
7. Madhya Pradesh	48.60	0.01	48.61	14.50	0.03	14.53	43.99	0.01	44.00
8. Maharashtra	46.74	0.02	46.76	13.45	0.16	13.61	38.10	0.05	38.15
9. Mysore	36.79	0.00	36.79	14.87	0.11	14.98	32.04	0.03	32.07
10. Orissa	27.39	0.00	27.39	13.12	0.04	13.16	26.58	0.01	26.59
11. Punjab	16.50	0.01	16.51	4.70	0.07	4.77	14.20	0.02	14.22
12. Rajasthan	40.82	0.01	40.83	10.05	0.06	10.11	35.89	0.02	35.91
13. Tamil Nadu	37.11	0.02	37.13	14.95	0.14	15.09	31.29	0.05	31.34
14. Uttar Pradesh	19.90	0.01	19.91	5.34	0.02	5.36	18.14	0.01	18.15
15. West Bengal	10.62	0.09	10.71	5.11	0.56	5.67	9.43	0.19	9.62
16. Andaman & Nicobar Is- lands	22.42	0.01	22.43	5.07	0.04	5.11	18.75	0.02	18.77
17. Delhi	21.98	0.02	22.00	4.46	0.14	4.60	6.51	0.13	6.64
18. Himachal Pradesh	57.74	0.03	57.77	11.93	0.06	11.99	55.83	0.03	55.86
19. L. M. & A. Islands	51.68	—	51.68	—	—	—	51.68	—	51.68
20. Manipur	44.86	0.01	44.87	40.43	0.28	40.71	44.48	0.03	44.51
21. Tripura	22.40	0.02	22.42	5.46	0.25	5.71	20.91	0.04	20.95
22. Dadra & Nagar Haveli	57.94	—	57.94	—	—	—	57.94	—	57.94
23. Goa, Daman & Diu.	33.96	0.02	33.98	20.04	0.03	20.07	31.79	0.02	31.81
24. Pondicherry	22.96	0.03	22.99	11.20	0.10	11.30	20.07	0.05	20.12
25. NEFA	17.21	—	17.21	—	—	—	17.21	—	17.21
26. Nagaland	60.34	0.00	60.34	9.68	0.16	9.84	58.24	0.00	58.24
All India	31.42	0.04	31.46	11.09	0.16	11.25	27.96	0.06	28.02

(-) denotes 'Nil'.

APPENDIX X—contd.

(c) PERSONS

State/Union Territory	RURAL			URBAN			ALL AREAS		
	'Workers' seeking work'	'Persons seeking work'	Total Col.(2) + Col.(3)	'Workers' seeking work'	'Persons seeking work'	Total Col.(5) + Col.(6)	'Workers' seeking work'	'Persons seeking work'	Total Col.(8) + Col.(9)
1	2	3	4	5	6	7	8	9	10
1. Andhra Pradesh	55.22	0.07	55.29	35.98	0.60	36.58	51.87	0.16	52.03
2. Assam	48.79	0.34	44.13	37.00	0.59	37.59	43.28	0.35	43.63
3. Bihar	42.16	0.10	42.26	43.22	0.78	34.00	41.40	0.16	41.56
4. Gujarat	44.96	0.13	45.09	29.88	0.89	30.77	41.08	0.32	41.40
5. Jammu & Kashmir	45.31	0.13	45.44	30.17	0.72	30.89	42.79	0.23	43.02
6. Kerala	33.97	0.89	34.86	29.56	1.76	31.32	33.31	1.02	34.33
7. Madhya Pradesh	55.19	0.03	55.22	34.94	0.33	35.32	52.29	0.08	52.37
8. Maharashtra	52.42	0.13	52.55	36.43	1.28	37.71	47.91	0.45	48.36
9. Mysore	48.76	0.06	48.82	34.05	0.68	34.73	45.47	0.20	45.67
10. Orissa	44.07	0.09	44.16	37.51	0.59	38.10	43.64	0.14	43.78
11. Punjab	36.17	0.22	36.39	30.18	0.68	30.86	34.97	0.31	35.28
12. Rajasthan	50.92	0.03	50.95	30.34	0.33	30.57	47.55	0.08	47.63
13. Tamil Nadu	49.63	0.17	49.80	34.41	1.14	35.55	45.57	0.43	46.00
14. Uttar Pradesh	40.33	0.06	40.39	30.96	0.51	31.47	39.12	0.12	39.24
15. West Bengal	32.67	0.58	33.25	34.66	2.63	37.29	33.16	1.08	34.24
16. Andaman & Nicobar Islands	50.56	0.12	50.68	43.90	0.97	44.87	49.09	0.31	49.40
17. Delhi	35.97	0.68	36.65	31.65	0.86	32.51	32.13	0.84	32.97
18. Himachal Pradesh	60.70	0.08	60.78	37.66	0.50	38.16	59.61	0.10	59.71
19. Laccadive, Minicoy & Amin- dive Islands.	51.64	—	51.64	—	—	—	51.64	—	51.64
20. Manipur	46.37	0.10	46.47	40.71	1.43	42.14	45.91	0.21	46.10
21. Tripura	39.36	0.16	39.52	27.41	0.94	28.35	38.28	0.23	38.51
22. Dadra & Nagar Haveli	60.03	—	60.03	—	—	—	60.03	—	60.03
23. Goa, Daman & Diu	42.51	0.12	42.63	34.32	0.16	34.48	41.19	0.13	41.32
24. Pondicherry	40.04	0.84	40.88	29.47	1.37	30.84	37.49	0.97	38.46
25. NEFA	67.60	—	67.60	—	—	—	67.60	—	67.60
26. Nagaland	60.69	0.02	60.71	35.76	0.32	36.08	59.40	0.03	59.43
All India	45.07	0.17	45.24	33.48	1.03	34.51	42.98	0.31	43.29

(—) denotes 'Nil'.

APPENDIX XI
(para 4.23)

State-wise percentages of 'persons seeking work' (1961 Census) and of 'other non-workers'* (1971 Census) to respective total population classified by sex and rural-urban residence

(a) MALES

State/Union Territory	Rural		Urban		All Areas	
	'Persons seeking work' (1961)	'Other non-workers'* (1971)	'Persons seeking work' (1961)	'Other non-workers'* (1971)	'Persons seeking work' (1961)	'Other non-workers'* (1971)
1	2	3	4	5	6	7
1. Andhra Pradesh	0.13	0.30	1.10	1.36	0.30	0.51
2. Assam	0.49	0.91	0.92	1.87	0.52	1.00
3. Bihar	0.19	1.07	1.35	3.02	0.30	1.28
4. Gujarat	0.24	0.36	1.66	1.67	0.62	0.74
5. Jammu & Kashmir	0.24	0.40	0.92	1.52	0.36	0.49
6. Kerala	1.43	2.30	2.81	3.96	1.64	2.58
7. Madhya Pradesh	0.05	0.48	0.67	1.88	0.14	0.72
8. Maharashtra	0.24	0.62	2.17	2.72	0.82	1.32
9. Mysore	0.11	0.22	1.20	1.10	0.36	0.44
10. Orissa	0.17	0.58	1.02	1.07	0.23	0.62
11. Punjab	0.40	0.48	1.17	0.94	0.56	0.59
12. Rajasthan	0.06	0.23	0.58	1.15	0.14	0.39
13. Uttar Pradesh	0.11	0.49	0.91	1.40	0.22	0.62
14. Tamil Nadu	0.32	0.70	2.09	3.02	0.80	1.41
15. West Bengal	1.04	0.91	4.08	3.72	1.86	1.65
16. Andaman & Nicobar	0.19	0.19	1.50	2.39	0.49	0.71
17. Delhi	1.23	1.74	1.41	1.31	1.39	1.36
18. Himachal Pradesh	0.13	0.78	0.81	1.74	0.16	0.85
19. L. M. & A. Islands	—	0.12	—	—	—	0.12
20. Manipur	0.18	0.34	2.57	1.12	0.40	0.45
21. Tripura	0.29	0.60	1.54	3.33	0.40	0.81
22. Dadra & Nagar Haveli	—	0.27	—	—	—	0.27
23. Goa, Daman & Diu	0.23	2.98	0.29	2.44	0.24	2.84
24. Pondicherry	1.65	1.81	2.70	1.71	1.90	1.77
25. NEFA	—	5.53	—	26.95	—	6.35
26. Nagaland	0.03	0.12	0.43	—	0.05	0.11
27. Haryana	N.A.	0.85	N.A.	1.26	N.A.	0.93
28. Chandigarh	N.A.	—	N.A.	1.05	N.A.	0.95
All India	0.30	0.66	1.76	2.18	0.55	0.98

*This includes the residual category of non-workers who reported to be seeking work and were not classified in the other specific categories of non-workers viz., students, household workers, rentiers, beggars and vagrants and dependents.

N.A.—Not available

(—) denotes 'Nil'

APPENDIX XI—contd.

(b) FEMALES

State/Union Territory	Rural		Urban		All areas	
	'Persons seeking work' (1961)	'Other non-workers*' (1971)	'Persons seeking work' (1961)	'Other non-workers*' (1971)	'Persons seeking work' (1961)	'Other non-workers*' (1971)
1	2	3	4	5	6	7
1. Andhra Pradesh	0·01	0·07	0·07	0·29	0·02	0·11
2. Assam	0·17	0·25	0·10	0·44	0·17	0·26
3. Bihar	0·01	0·13	0·07	0·26	0·02	0·14
4. Gujarat	0·01	0·04	0·04	0·13	0·01	0·06
5. Jammu & Kashmir	0·01	0·06	0·47	0·21	0·09	0·08
6. Kerala	0·36	0·99	0·69	1·75	0·41	1·12
7. Madhya Pradesh	0·07	0·74	0·05	0·26	0·01	0·16
8. Maharashtra	0·02	0·03	0·16	0·37	0·05	0·13
9. Mysore	0·00	0·05	0·11	0·28	0·03	0·10
10. Orissa	0·00	0·05	0·04	0·08	0·01	0·06
11. Punjab	0·01	0·07	0·07	0·20	0·02	0·10
12. Rajasthan	0·01	0·03	0·06	0·13	0·02	0·04
13. Uttar Pradesh	0·01	0·15	0·02	0·17	0·01	0·15
14. West Bengal	0·09	0·13	0·56	0·44	0·19	0·20
15. Tamil Nadu	0·02	0·26	0·14	0·83	0·05	0·43
16. Andaman & Nicobar Islands	0·01	—	0·04	—	0·02	—
17. Delhi	0·02	0·16	0·14	0·35	0·13	0·33
18. Himachal Pradesh	0·03	0·22	0·06	0·87	0·03	0·2
19. L. M. & A. Islands	—	0·13	—	—	—	0·13
20. Manipur	0·01	0·28	0·28	0·14	0·03	0·26
21. Tripura	0·02	0·03	0·25	0·34	0·04	0·05
22. Dadra & Nagar Haveli	—	—	—	—	—	—
23. Goa, Daman & Diu	0·02	0·66	0·03	0·38	0·02	0·59
24. Pondicherry	0·03	0·15	0·10	0·40	0·05	0·26
25. NEFA . . . . .	..	1·69	..	18·16	..	2·01
26. Nagaland	0·00	0·18	0·16	..	0·00	0·17
27. Haryana	N.A.	0·20	N.A.	0·31	N.A.	0·22
28. Chandigarh	N.A.	—	N.A.	0·19	N.A.	0·18
All India	0·04	0·15	0·16	0·39	0·06	0·20

*This includes the residual category of non-workers who reported to be seeking work and were not classified in the other specific categories of non-workers viz., students, household workers, retirees, beggars and vagrants and dependents.

N.A.— Not Available.

(—) denotes 'Nil'.

APPENDIX XI—contd.

(c) PERSONS

State/Union Territory	Rural		Urban		All areas	
	'Persons seeking work' (1961)	'Other non-workers'* (1971)	'Persons seeking work' (1961)	'Other non-workers'* (1971)	'Persons seeking work' (1961)	['Other non-workers'* (1971)]
1	2	3	4	5	6	7
1. Andhra Pradesh	0.07	0.19	0.60	0.84	0.16	0.31
2. Assam	0.34	0.59	0.59	1.26	0.35	0.65
3. Bihar	0.10	0.61	0.78	1.79	0.16	0.72
4. Gujarat	0.13	0.20	0.89	0.94	0.32	0.41
5. Jammu & Kashmir	0.13	0.16	0.72	0.91	0.23	0.25
6. Kerala	0.89	1.64	1.76	2.86	1.02	1.84
7. Madhya Pradesh	0.03	0.31	0.38	1.13	0.08	0.45
8. Maharashtra	0.13	0.33	1.28	1.66	0.45	0.74
9. Mysore	0.06	0.14	0.68	0.71	0.20	0.28
10. Orissa	0.09	0.31	0.59	0.62	0.14	0.34
11. Punjab	0.22	0.29	0.68	0.60	0.31	0.36
12. Rajasthan	0.03	0.13	0.33	0.68	0.08	0.23
13. Uttar Pradesh	0.06	0.33	0.51	0.84	0.12	0.40
14. West Bengal	0.58	0.53	2.63	2.31	1.08	0.97
15. Tamil Nadu	0.17	0.48	1.14	1.96	0.43	0.93
16. Andaman & Nicobar	0.12	0.11	0.97	1.52	0.31	0.43
17. Delhi	0.68	1.03	0.86	0.88	0.84	0.90
18. Himachal Pradesh	0.08	0.50	0.50	1.36	0.10	0.56
19. L. M. & A. Islands	—	0.13	—	—	—	0.13
20. Manipur	0.10	0.31	1.43	0.64	0.21	0.36
21. Tripura	0.16	0.32	0.94	1.89	0.23	0.44
22. Dadra & Nagar Haveli	—	0.13	—	—	—	0.13
23. Goa, Daman & Diu	0.12	1.80	0.16	1.46	0.13	1.71
24. Pondicherry	0.84	0.99	1.37	1.06	0.97	1.02
25. NEFA	—	3.69	—	23.81	—	4.32
26. Nagaland	0.02	0.15	0.32	—	0.03	0.14
27. Haryana	N.A.	0.55	N.A.	0.83	N.A.	0.60
28. Chandigarh	N.A.	—	N.A.	0.69	N.A.	0.62
All India	0.17	0.41	1.03	1.36	0.31	0.60

*This includes the residual category of non-workers who reported to be seeking work and were not classified in the other specific categories of workers viz., students, household workers, retirees, beggars and vagrants and dependents.

N.A.—Not Available.

(—) denotes 'Nil'.

APPENDIX XII

(Para 4.23)

State-wise percentages of 'persons of age 15-59 seeking work' (1961 Census) and of 'other non-workers'* of age 15-59 (1971 Census) to total population in the same age group classified by sex and rural-urban residence

(a) MALES

State/Union Territory	Rural		Urban		All areas	
	'Persons seeking work' (1961)	'Other non-workers'* (1971)	'Persons seeking work' (1961)	'Other non-workers'* (1971)	Persons seeking work' (1961)	'Other non-workers'* (1971)
1	2	3	4	5	6	7
1. Andhra Pradesh	0.23	0.48	1.92	2.17	0.54	0.83
2. Assam	0.79	1.59	1.40	2.62	0.86	1.71
3. Bihar	0.34	1.74	2.16	4.57	0.54	1.18
4. Gujarat	0.43	0.43	2.79	2.66	1.09	1.26
5. Haryana	N.A.	1.30	N.A.	1.93	N. A.	1.43
6. Jammu & Kashmir	0.33	0.46	1.57	2.30	0.54	0.81
7. Kerala	2.73	3.95	4.97	6.61	3.09	4.41
8. Madhya Pradesh	0.08	0.76	1.14	2.88	0.25	1.08
9. Maharashtra	0.41	1.12	3.38	4.10	1.43	2.24
10. Mysore	0.20	0.37	2.03	1.75	0.64	0.74
11. Nagaland	0.05	0.23	0.63	—	0.10	0.19
12. Orissa	0.29	0.97	1.54	1.60	0.39	1.03
13. Punjab	0.78	0.71	1.97	1.28	1.06	0.92
14. Rajasthan	0.10	0.30	1.01	1.83	0.25	0.59
15. Tamil Nadu	0.53	0.99	3.46	4.72	1.34	3.02
16. Uttar Pradesh	0.20	0.58	1.53	1.98	0.39	0.80
17. West Bengal	1.81	1.54	5.99	5.42	3.13	2.76
18. Andaman & Nicobar Islands	0.28	0.30	2.09	3.27	0.70	1.09
19. Chandigarh	N.A.	0.00	N.A.	1.52	N.A.	1.38
20. Dadra & Nagar Haveli	N.A.	8.53	N.A.	—	0.14	0.53
21. Delhi	2.46	3.10	2.34	1.92	2.35	2.02
22. Goa, Daman & Diu	0.42	4.86	0.49	3.52	0.43	4.45
23. Himachal Pradesh	0.21	1.24	1.25	2.62	0.27	1.38
24. L. M. & A. Islands	N.A.	—	N.A.	—	0.05	—
25. Manipur	0.36	0.54	4.41	2.01	0.75	0.75
26. Arunachal Pradesh	N.A.	7.19	N.A.	25.83	N.A.	8.31
27. Pondicherry	2.64	3.01	4.46	2.76	3.07	2.91
28. Tripura	0.54	1.17	2.69	3.84	0.76	1.48
29. Meghalaya	N.A.	0.22	N.A.	1.03	N.A.	0.36
Total All India	0.52	1.06	2.88	3.37	1.01	1.59

*This includes the residual category of non-workers who reported to be seeking work and were not classified in other specific categories of non-workers viz., students, household workers, rentiers, pensioners and vagrants and dependents.

N.A.—Not Available

(—) denotes 'Nil'.

APPENDIX XII—contd.

(b) FEMALES

State/Union Territory	Rural		Urban		All areas	
	'Persons seeking work' (1961)	'Other non-workers'* (1971)	'Persons seeking work' (1961)	'Other non-workers'* (1971)	'Persons seeking work' (1961)	'Other non-workers'* (1971)
1	2	3	4	5	6	7
1. Andhra Pradesh	0.02	0.08	0.112	0.08	0.03	0.13
2. Assam	0.27	0.36	0.210	0.66	0.27	0.38
3. Bihar	0.02	0.09	0.13	0.03	0.02	0.08
4. Gujarat	0.01	0.04	0.016	0.19	0.02	0.08
5. Haryana	N.A.	0.14	N.A.	0.45	N.A.	0.19
6. Jammu & Kashmir	0.02	0.09	0.990	0.29	0.16	0.13
7. Kerala	0.68	1.61	1.227	2.82	0.77	1.81
8. Madhya Pradesh	0.09	0.09	0.005	0.28	0.02	0.12
9. Maharashtra	0.02	0.05	0.228	0.55	0.09	0.21
10. Mysore	0.01	0.10	0.220	0.47	0.02	0.18
11. Nagaland	0.00	0.17	0.312	—	0.01	0.16
12. Orissa	0.05	0.06	0.007	0.16	0.01	0.06
13. Punjab	0.01	0.11	0.13	0.31	0.04	0.16
14. Rajasthan	0.01	0.29	0.110	0.19	0.03	0.02
15. Tamil Nadu	0.03	0.21	0.225	1.12	0.09	0.48
16. Uttar Pradesh	0.01	0.10	0.004	0.20	0.02	0.12
17. West Bengal	0.14	0.14	1.001	0.60	0.34	0.26
18. Andaman & Nicobar Islands	0.02	—	0.018	—	0.03	—
19. Chandigarh	N.A.	—	N.A.	0.34	N.A.	0.31
20. Dadra & Nagar Haveli	N.A.	—	N.A.	—	0.02	—
21. Delhi	0.05	0.21	0.227	0.53	0.25	0.50
22. Goa, Daman & Diu	0.04	0.92	0.005	0.66	0.04	0.86
23. Himachal Pradesh	0.04	0.29	0.111	1.53	0.04	0.37
24. L. M. & A. Islands	N.A.	2.27	N.A.	—	—	2.27
25. Manipur	0.02	0.21	0.449	—	0.06	0.18
26. Arunachal Pradesh	N.A.	2.10	N.A.	29.56	N.A.	2.81
27. Pondicherry	0.04	0.27	0.118	0.73	0.08	0.47
28. Tripura	0.04	0.06	0.449	0.48	0.08	0.11
29. Meghalaya	N.A.	..	N.A.	1.38	N.A.	0.20
Total All India	0.06	0.17	0.229	0.57	0.10	0.25

*This includes the residual category of non-workers who reported to be seeking work and were not classified in other specific categories of non-workers viz., students, household workers, rentiers, pensioners and vagrants and dependents.

N.A.—Not Available

(—) denotes 'Nil'

APPENDIX XIII

((Para 4.28)

Number and percentage of the persons seeking work among the technical personnel
(1971 Census:—Special Enumeration)

State/Union Territory	Number of respondents		Number of respondents seeking work		Percentage of respondents seeking work	
	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7
1. Andhra Pradesh	11177,770	16,536	13,790	3,398	11.71	20.55
2. Assam	4488,212	8,271	5,009	2,200	10.39	26.60
3. Bihar	11177,969	10,990	29,040	2,912	24.61	26.49
4. Gujarat	10177,477	25,200	7,759	4,471	7.22	17.74
5. Haryana	3111,252	8,258	3,369	1,638	10.78	19.83
6. Madhya Pradesh	12288,399	25,023	11,799	4,574	9.19	18.28
7. Jammu & Kashmir	1122,749	2,822	1,524	717	11.95	25.41
8. Kerala	9944,411	39,424	17,317	10,913	18.34	27.68
9. Maharashtra	21166,114	61,584	11,955	7,487	5.53	12.16
10. Mysore	11177,079	21,687	14,124	4,602	12.06	21.22
11. Nagaland	11,146	119	42	14	3.66	11.76
12. Orissa	4433,473	5,371	1,245	388	2.86	7.22
13. Punjab	5600,465	19,129	5,756	3,410	11.40	17.83
14. Rajasthan	7766,551	12,625	4,862	1,867	6.35	14.78
15. Tamil Nadu	13322,700	25,741	15,429	5,119	11.63	19.89
16. Uttar Pradesh	22233,036	51,317	20,545	6,474	9.21	12.62
17. West Bengal	11166,006	23,498	30,313	7,901	26.13	33.62
18. A. & N. Islands	11,048	179	32	28	3.05	15.64
19. Chandigarh	1122,378	4,451	434	625	3.51	14.04
20. Dadra & Nagar Haveli	117	16	5	5	4.27	31.25
21. Delhi	9988,319	39,093	8,274	8,977	8.42	22.96
22. Goa, Daman & Diu	44,876	1,429	240	175	4.92	12.25
23. Himachal Pradesh	1144,316	2,970	896	433	6.26	14.58
24. L. M. & A. Islands	181	32	1	6	0.55	18.75
25. Manipur	33,931	537	569	148	14.47	27.56
26. N. E. F. A.	11,120	114	14	15	1.25	13.15
27. Pondicherry	22,103	452	158	57	7.51	12.61
28. Tripura	55,852	1,240	905	379	15.46	30.56
29. Meghalaya	11,950	455	46	67	2.35	14.72

APPENDIX XIV

Percentages of the graduates and technical personnel seeking work by sex and subject fields

(Para 4.28)

(1971 Census—Special Enumeration)

State/Union Territory*	Arts and Humanities		Commerce		Agriculture		Veterinary Science		General Science		Engineering Technology		Medicine all systems of medicine		Nursing		Technical and Vocational trades		Others		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Andhra Pradesh	6.6	18.7	15.8	31.1	15.1	19.5	7.9	18.2	15.7	23.5	14.0	32.2	8.0	11.3	5.0	9.1	19.5	44.9	9.7	23.1	11.7	20.5
2. Assam	10.7	28.6	9.6	21.7	3.3	66.7	0.8	33.3	11.5	24.8	10.4	18.2	3.1	6.7	2.9	3.5	22.5	32.0	4.3	27.7	10.4	26.6
3. Bihar	25.7	27.5	44.1	18.8	17.3	0.0	10.8	40.0	31.4	26.2	17.5	21.5	6.1	12.3	7.6	3.5	43.0	16.7	14.5	15.1	24.6	26.5
4. Gujarat	5.5	18.2	9.7	19.2	4.3	0.0	1.2	100.0	11.9	19.9	7.0	9.1	2.2	5.1	0.0	3.4	6.4	12.9	5.6	13.3	7.2	17.7
5. Haryana	11.0	20.6	12.2	22.2	8.3	33.3	2.2	0.0	14.6	15.2	9.3	18.5	2.9	6.3	0.0	4.9	9.3	14.3	7.4	26.3	10.8	19.8
6. Jammu and Kashmir	7.5	25.8	12.6	33.3	4.8	50.0	1.0	—	26.7	3.0	10.6	15.4	3.1	6.7	—	—	8.9	0.0	6.5	27.6	12.0	25.4
7. Kerala	12.8	25.6	22.0	40.4	8.1	34.6	10.4	28.0	22.5	32.5	27.0	34.5	6.8	10.8	4.8	3.5	39.7	50.7	23.0	38.6	18.3	27.7
8. Madhya Pradesh	7.4	18.6	12.7	23.3	7.7	12.5	0.6	0.0	13.0	19.5	12.9	16.8	4.1	7.6	0.0	3.5	13.9	31.3	5.4	14.3	9.2	18.3
9. Maharashtra	4.2	12.2	10.6	12.9	12.1	16.7	3.3	37.5	5.6	14.6	4.4	11.4	1.8	4.8	2.7	2.4	11.2	6.5	4.2	9.2	5.5	12.2
10. Mysore	8.6	20.0	11.8	25.6	7.2	20.8	2.3	9.5	14.5	24.2	16.1	17.6	6.7	7.5	5.3	10.8	8.6	30.8	7.1	17.9	12.1	21.2
11. Orissa	2.8	8.1	3.1	10.5	0.3	0.0	3.0	0.0	3.4	6.6	2.7	3.7	2.4	2.9	0.0	1.1	2.5	0.0	2.4	10.5	2.9	7.2
12. Punjab	10.9	18.4	9.5	4.5	7.6	8.3	1.7	14.3	17.1	15.9	12.4	15.5	2.7	4.9	—	5.0	13.2	32.8	10.5	24.6	11.4	17.8
13. Rajasthan	5.6	15.8	7.6	10.3	5.9	25.0	4.5	—	6.4	12.8	10.9	12.5	3.5	3.4	—	—	8.8	25.0	9.3	16.3	6.4	14.8
14. Tamil Nadu	10.9	19.9	10.2	27.8	0.6	3.6	0.5	8.3	15.3	22.3	10.5	22.6	2.1	4.1	5.2	5.5	19.5	37.3	11.9	16.7	11.6	19.9
15. Uttar Pradesh	8.2	13.3	7.9	5.3	17.1	12.9	4.7	8.8	11.6	15.5	9.7	18.4	2.9	4.7	5.6	—	10.5	34.5	6.2	14.5	9.2	13.2
16. West Bengal	24.8	34.8	28.8	32.4	18.0	20.0	2.6	—	27.7	28.5	30.7	30.0	3.4	8.2	—	2.8	37.3	47.4	11.6	12.0	26.1	33.6
17. Delhi	7.1	24.1	10.5	9.6	7.2	13.0	3.6	—	11.1	18.6	10.1	20.7	4.7	9.9	—	6.1	1.4	2.6	9.2	19.1	8.4	23.0
18. Himachal Pradesh	6.7	14.5	10.2	—	4.2	40.0	0.7	—	11.7	23.2	3.3	—	2.1	7.3	—	—	7.1	33.3	1.6	16.1	6.3	14.6
19. Meghalaya	3.0	16.5	3.0	—	2.0	—	—	—	2.5	12.1	0.9	—	—	—	—	—	—	—	—	—	2.4	14.7

*Data for other States and Union Territories are not available.

M— Males

F— Females

(—) denotes 'Nil'.

APPENDIX XV(a)

(Para 4.28)

Distribution of graduates and technical personnel seeking work by sex, levels of education and duration of unemployment

(1971 Census—Special Enumeration)

Level of Education	Duration of Unemployment (months)	Males	Females
1	2	3	4
All levels of Education	Total	2,08,656	79,804
	0—6	24,730	5,302
	7—12	57,911	20,369
	13—24	36,507	11,513
	25+	459,35	17,727
	P.N.S.*	43,573	24,893
1. Doctorate.	Total	351	243
	0—6	72	31
	7—12	65	52
	13—24	42	23
	25+	72	68
	P. N. S.*	100	69
2. Master/Post Graduate	Total	24,444	15,376
	0—6	2,295	805
	7—12	7,266	3,810
	13—24	4,020	2,228
	25+	5,597	3,824
	P. N. S.*	5,266	4,709
3. Bachelor/Equivalent	Total	1,58,404	62,124
	0—6	19,350	4,301
	7—12	44,959	16,110
	13—24	27,684	8,960
	25+	32,835	13,255
	P. N. S.*	33,575	19,498
4. Diploma	Total	20,040	1,478
	0—6	2,415	132
	7—12	4,814	316
	13—24	3,801	222
	25+	5,736	387
	P. N. S.*	3,214	421
5. Certificate	Total	5,417	583
	0—6	598	33
	7—12	807	81
	13—24	960	80
	25+	1,695	193
	P. N. S.*	1,357	196

*Period not specified.

APPENDIX XV(b)

(Para 4.28)

Average (Median) duration of unemployment among graduates and technical personnel by sex, subject fields and levels of education

(1971 Census—Special Enumeration)

(Months)

Level of Education	Arts/ Humanities		Commerce		Agriculture		Veterinary Science/ Medicine		Science		Engineering and Technology		Medicine (All systems of Medicine)		Nursing		Others		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
All Levels of Education	16.1	16.4	12.7	11.6	12.1	15.7	12.9	19.0	11.9	12.4	17.8	13.8	10.5	8.9	24.0	18.0	15.9	15.3	12.9	14.8
1. Doctorate	17.3	21.4	—	—	11.0	—	—	—	10.6	16.0	5.5	—	11.8	10.0	—	—	15.2	7.9	12.0	15.1
2. Master/Post Graduate	16.7	17.9	12.9	12.4	10.9	10.0	11.0	—	11.7	13.9	10.0	12.0	9.7	7.0	—	—	11.1	13.3	13.1	16.9
3. Bachelor/Equivalent	16.0	16.1	12.7	11.5	12.9	22.3	16.5	16.0	11.8	12.2	11.4	11.1	9.7	10.8	—	16.4	13.1	14.3	12.7	14.2
4. Diploma	13.4	15.5	17.5	12.0	26.9	—	20.2	—	16.2	19.0	16.3	16.3	22.2	21.8	25.2	18.0	15.5	15.5	16.7	17.4
5. Certificate	15.0	25.3	11.5	—	30.1	—	—	—	16.6	12.0	19.4	21.0	26.9	24.0	—	—	16.7	16.3	20.8	24.0

M—Male

F—Female.

(—) denotes 'Nil'.

APPENDIX XVI

(Para 4.28)

State-wise average (Median) duration of unemployment among the graduates and technical personnel by sex and educational levels
(1971 Census—Special Enumeration) (Months)

State/Union Territory	Doctorate			Master's/Post Graduate Degree			Bachelor/Equivalent Degree			Diploma			Certificate			Total		
	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Andhra Pradesh	19.0	27.4	25.0	12.0	16.7	12.4	12.3	14.1	12.5	12.8	12.6	12.8	16.3	19.0	16.7	12.3	14.4	12.5
2. Assam	—	—	—	12.4	16.9	12.1	18.2	22.8	19.6	18.9	27.2	19.2	25.6	29.5	25.3	17.9	22.1	19.0
3. Bihar	17.0	25.0	20.2	24.3	25.6	24.6	20.4	25.6	22.7	23.1	19.0	23.1	25.9	—	25.9	22.8	25.3	23.0
4. Gujarat	4.5	12.0	6.0	11.5	14.3	12.2	11.7	13.3	12.1	11.1	12.0	11.2	12.0	12.0	11.7	13.3	12.1	—
5. Haryana	13.0	7.0	7.0	10.0	13.6	11.7	10.6	12.6	10.9	12.5	10.4	12.3	19.0	29.0	25.0	10.7	12.7	11.2
6. Jammu and Kashmir	—	—	—	11.7	12.6	12.1	11.2	12.9	11.7	13.6	—	13.6	—	—	—	11.5	12.8	11.8
7. Kerala	16.0	19.2	18.3	12.3	13.6	12.7	11.9	12.3	12.1	18.8	20.1	17.0	21.8	23.0	22.2	12.9	12.5	12.6
8. Madhya Pradesh	11.7	26.3	17.0	12.7	19.0	14.5	13.0	16.8	13.9	16.5	19.7	16.5	25.7	25.0	25.6	9.9	17.7	11.1
9. Maharashtra	7.7	25.0	11.0	11.6	14.1	12.2	10.8	12.7	11.4	9.7	12.8	10.0	15.0	21.0	15.1	9.8	12.8	11.5
10. Mysore	9.0	17.0	10.8	11.2	12.7	11.8	11.0	11.9	11.2	19.8	13.9	19.1	20.1	25.0	20.7	11.6	12.0	11.7
11. Nagaland	—	—	—	10.0	25.0	12.0	22.0	16.0	20.0	—	—	—	—	—	—	19.7	17.8	19.0
12. Orissa	—	—	—	10.8	11.1	10.9	11.8	12.9	11.9	23.7	0.0	23.5	22.0	12.0	21.0	4.7	4.2	4.6
13. Punjab	10.0	11.0	10.6	11.8	12.5	12.1	12.4	19.4	12.8	17.3	21.0	17.5	25.0	27.3	25.7	8.1	14.3	12.1
14. Rajasthan	13.0	25.0	19.0	12.8	16.0	15.2	7.9	13.2	12.6	13.0	13.0	13.0	25.0	—	25.0	12.5	17.0	12.8
15. Tamil Nadu	25.0	10.0	13.0	11.9	12.7	12.2	11.8	12.3	11.9	15.9	16.4	15.9	23.4	25.0	23.4	12.1	12.0	12.0
16. Uttar Pradesh	17.0	11.5	13.8	12.9	23.1	15.7	13.0	16.1	13.6	14.2	17.5	14.3	20.9	25.0	21.0	13.1	16.4	23.8
17. West Bengal	10.0	13.0	11.0	13.1	16.5	16.3	16.0	19.3	16.6	20.7	27.0	20.9	20.0	13.0	19.9	15.0	20.9	15.6
18. A. & N. Islands	—	—	—	25.0	—	25.0	10.0	12.0	11.0	—	—	—	12.0	—	12.0	10.2	25.0	12.1
19. Chandigarh	—	—	—	10.5	13.6	12.2	10.8	23.5	13.2	11.8	—	11.8	25.0	29.0	28.4	10.8	21.4	12.9
20. Delhi	12.3	13.0	12.3	11.9	16.2	14.9	11.5	17.0	12.7	12.5	18.2	12.9	13.8	28.0	18.4	11.7	16.7	13.0
21. Goa, Daman & Diu	—	—	—	10.3	19.0	11.7	10.2	11.0	10.5	—	—	—	—	—	—	10.4	11.3	10.7
22. Himachal Pradesh	—	—	—	11.3	15.7	12.7	10.7	13.6	11.3	10.5	28.0	11.0	19.0	—	16.0	10.8	15.4	11.5
23. Manipur	—	—	—	11.6	11.9	11.7	18.9	14.0	18.1	—	—	—	—	—	—	17.7	12.9	16.7
24. Pondicherry	—	—	—	13.0	17.8	17.5	18.5	20.7	18.9	26.5	—	26.5	—	—	—	12.0	13.0	12.2
25. Tripura	—	—	—	16.4	25.7	20.2	7.4	22.1	14.9	—	—	—	—	—	—	13.0	22.6	15.4

M—Males
F—Females
P—Persons
(—) denotes 'Nil'.

APPENDIX XVII(a)
(para 4-29)

Percentage* of 'other non-workers' among graduates and technical personnel classified by sex, educational level and urban-rural residence (1971 Census)

Educational Levels	Rural			Urban			All areas		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1	2	3	4	5	6	7	8	9	10
1. Technical diploma or Certificate not equal to degree	10.17	15.88	11.85	5.92	7.61	6.28	7.84	12.26	8.95
2. Graduate degree including technical degree	7.80	12.05	8.21	3.58	3.88	3.65	4.75	4.88	4.77

Sources : B-III and B-IX (Economic tables) mimeographed; through the courtesy of Registrar General and Census Commissioner, India.

*The data are based on one per cent sample.

APPENDIX XVII(b)

Percentage* of other non-workers among graduates and technical personnel classified by sex, educational level (1971 Census)

(Urban only)

Educational Levels	Males	Females	Persons
1	2	3	4
1. Technical diploma or Certificate not equal to degree	5.92	7.61	6.28
2. (a) Graduate degree other than technical degree	4.06	4.25	4.10
(b) Post graduate degree other than technical degree	2.55	3.27	2.72
(c) Technical degree or diploma equal to degree or post-graduate degree	2.85	3.04	2.88
(i) Engineering & Technology	4.08	2.33	4.03
(ii) Medicine	1.57	1.41	1.54
(iii) Agriculture, Veterinary & dairying	1.50	..	1.38
(iv) Teaching	2.08	3.85	2.91
(v) Others	1.66	..	1.40
(a), (b) and (c) taken together	3.58	3.88	3.65
(1) and (2) taken together	3.76	4.14	3.85

Source : B-III and B-IX (Economic Tables) mimeograph - 1971-Census-through the courtesy of the Registrar General and Census Commissioner, India.

*The data are based on one per cent sample.

APPENDIX XVIII

(Para 4.31)

Percentage distribution of workers by industry-groups and rural-urban residence

(1971 Census) Rural

(a)

State/Union Territory	Cultivators	Agricultural labourers	Livestock, forestry, fishing, hunting, plantations etc.	Mining and quarrying	Manufacturing		Construction	Trade and Commerce	Transport, storage & communication	Other services
					Household industry	Other than household industry				
1	2	3	4	5	6	7	8	9	10	11
1. Andhra Pradesh	36.7	42.5	3.6	0.4	4.7	2.1	1.0	3.0	0.7	5.3
2. Assam	62.0	10.4	11.6	0.4	1.1	1.6	0.7	3.3	1.1	7.8
3. Bihar	46.8	41.8	0.9	0.7	2.2	1.3	0.3	1.8	0.8	3.4
4. Gujarat	55.4	28.3	2.2	0.3	2.7	2.6	0.6	2.8	1.1	4.0
5. Haryana	58.1	18.9	1.5	0.2	3.5	3.4	1.5	2.9	1.1	8.9
6. Himachal Pradesh	75.2	4.3	2.7	0.1	2.6	1.1	3.1	1.6	0.8	8.5
7. Jammu & Kashmir	76.1	3.3	3.5	0.1	3.4	0.7	1.7	1.9	1.6	7.7
8. Kerala	20.2	34.4	7.3	0.5	4.4	10.2	1.6	7.4	2.8	11.2
9. Madhya Pradesh	59.4	29.5	1.7	0.4	3.2	0.8	0.4	1.3	0.3	3.0
10. Maharashtra	47.5	38.2	1.6	0.2	3.0	2.1	0.8	1.9	0.6	4.1
11. Manipur	72.7	3.6	0.6	—	8.1	0.9	0.9	2.1	0.6	10.5
12. Meghalaya	77.0	10.8	2.8	0.2	1.0	0.5	0.5	1.3	0.5	5.4
13. Mysore	48.4	31.4	4.7	0.4	3.7	2.2	1.2	2.5	0.7	4.8
14. Nagaland	85.7	11.7	0.4	—	—	0.4	0.8	0.8	0.4	9.8
15. Orissa	52.9	30.2	2.1	0.6	3.6	1.3	0.4	2.0	0.6	6.3
16. Punjab	53.6	24.8	1.2	—	3.4	3.3	1.6	3.1	1.2	7.8
17. Rajasthan	74.2	10.3	2.9	0.4	2.9	1.2	0.7	2.0	0.6	4.8
18. Tamil Nadu	40.2	38.1	2.6	0.4	3.6	4.1	1.0	3.4	0.8	5.8
19. Tripura	59.3	21.4	2.3	—	1.5	1.5	0.5	4.1	1.0	8.4
20. Uttar Pradesh	64.9	22.2	0.6	—	3.1	1.5	0.4	1.8	0.5	5.0
21. West Bengal	43.1	35.0	3.7	1.2	2.6	3.7	0.5	3.0	1.4	5.8
22. Andaman & Nicobar Islands	17.6	5.9	20.6	—	5.9	5.9	23.5	2.9	2.9	14.8
23. Arunachal Pradesh	80.4	1.9	0.4	—	0.4	—	—	0.4	—	16.5
24. Chandigarh	25.0	12.5	—	—	—	12.5	12.5	—	—	37.5
25. Dadra & Nagar Haveli	71.4	17.1	2.8	—	—	2.9	2.9	—	—	2.9
26. Delhi	24.2	9.8	1.8	2.7	2.7	18.8	2.7	4.2	7.2	25.9
27. Goa, Daman & Diu.	31.8	18.7	5.6	7.1	6.6	4.5	3.5	6.1	6.1	10.0
28. L. M. & A. Islands	—	—	25.0	—	37.5	—	12.5	—	—	25.0
29. Pondicherry	16.7	47.8	5.5	—	1.1	10.0	2.2	6.7	1.1	8.9
All India	51.6	30.7	2.5	0.4	3.2	2.3	0.7	2.4	0.8	5.3

Source: Pocket Book of Population Statistics, 1971 Census, issued by the Registrar General, India, New Delhi.

(—) denotes 'Nil'.

APPENDIX XVIII—contd.

(b) URBAN

State/Union Territory	Cultivators	Agricultural labourers	Livestock, forestry, hunting, fishing, plantations, etc.,	Mining and quarrying	Manufacturing		Construction	Trade and Commerce	Transport storage & communication	Other services
					Household industry	Other than household industry				
1	2	3	4	5	6	7	8	9	10	11
1. Andhra Pradesh	5.6	10.6	1.5	1.3	5.6	16.6	4.9	20.3	10.9	22.7
2. Assam	5.5	1.5	2.0	1.2	3.5	12.6	4.0	26.8	15.1	27.8
3. Bihar	8.3	10.6	1.2	8.8	4.7	15.9	3.4	18.3	8.9	19.9
4. Gujarat	5.4	4.5	1.5	0.6	3.0	29.5	3.9	19.9	8.4	23.3
5. Haryana	6.9	3.9	0.6	—	2.4	22.1	3.2	24.7	8.6	27.6
6. Himachal Pradesh	4.8	1.2	3.6	—	2.4	8.4	16.9	15.7	7.2	39.8
7. Jammu & Kashmir	7.5	1.8	4.4	0.4	7.0	13.2	5.3	17.2	11.9	31.3
8. Kerala	4.1	0.0	4.9	0.3	3.6	18.8	2.5	18.6	9.8	27.4
9. Madhya Pradesh	6.7	5.7	1.8	2.6	7.0	18.8	3.3	16.9	8.6	28.6
10. Maharashtra	3.5	5.7	1.6	0.3	3.3	31.0	3.3	19.7	9.6	22.0
11. Manipur	15.8	2.6	—	—	21.1	7.9	5.3	18.4	5.3	23.6
12. Meghalaya	2.1	2.1	2.1	—	2.1	8.5	4.3	17.0	8.5	53.3
13. Mysore	8.0	8.7	2.0	0.9	6.8	20.2	4.1	18.7	10.4	20.2
14. Nagaland	3.8	—	—	—	3.8	3.8	3.8	11.6	7.7	65.5
15. Orissa	7.7	6.8	3.0	2.1	4.3	13.7	2.5	18.3	10.5	31.1
16. Punjab	5.6	4.5	0.5	—	2.3	24.4	3.4	25.0	7.0	26.4
17. Rajasthan	10.4	3.2	0.8	0.5	6.7	15.3	4.3	18.9	9.8	30.1
18. Tamil Nadu	4.9	8.2	3.2	0.3	7.1	2.26	3.5	20.9	9.9	19.4
19. Tripura	5.1	5.1	2.6	—	—	7.7	2.6	23.1	5.1	48.7
20. Uttar Pradesh	5.5	4.2	0.8	0.1	7.6	18.5	2.4	20.1	10.4	30.4
21. West Bengal	1.5	3.0	0.8	0.2	2.9	32.5	2.3	21.4	11.9	23.5
22. Andaman & Nicobar	—	—	8.3	—	—	8.3	16.7	16.7	16.7	33.3
23. Arunachal Pradesh	11.1	—	—	—	—	—	—	11.1	—	77.8
24. Chandigarh	1.3	—	—	—	—	13.0	5.2	14.3	5.2	61.0
25. Dadra & Nagar Haveli	—	—	—	—	—	—	—	—	—	—
26. Delhi	0.4	0.4	0.8	—	2.1	21.8	5.6	21.5	9.6	37.8
27. Goa, Daman & Diu	2.7	5.4	4.1	2.7	4.1	10.8	5.7	18.9	16.2	28.4
28. L. M. & A. Islands	—	—	—	—	—	—	—	—	—	—
29. Pondicherry	3.9	5.9	3.9	—	2.0	27.5	3.9	19.5	5.9	27.5
All India	5.1	6.0	1.7	1.0	5.0	22.9	3.5	20.0	10.0	24.9

Source : Pocket Book of Population Statistics, 1971 Census, issued by the Registrar General, India, New Delhi.

(—) denotes 'Nil'

APPENDIX XVIII—contd.

(c) All areas

State/Union Territory / Industry Group	Culti-vators	Agricultural Labourers	Live-stock, forestry, Fishing, Hunting, Plantations etc.	Mining & quarrying	Manufacturing		Con-struction	Trade and commerce	Transport, storage & communi-cation	Other services
					Household industry	Other than household industry				
1	2	3	4	5	6	7	8	9	10	11
1. Andhra Pradesh	32.2	37.9	3.3	0.6	4.9	4.2	1.6	5.4	2.2	7.8
2. Assam	56.8	9.6	10.6	0.3	1.3	2.7	1.0	5.5	2.4	9.8
3. Bihar	43.3	38.9	1.0	1.5	2.5	2.5	0.6	3.3	1.5	4.9
4. Gujarat	43.2	22.5	2.0	0.4	2.8	9.3	1.4	6.9	2.9	8.6
5. Haryana	49.1	16.2	1.4	0.2	3.3	6.7	1.8	6.7	2.4	12.2
6. Himachal Pradesh	70.7	4.1	2.7	0.0	2.6	1.6	4.0	2.5	1.3	10.5
7. Jammu & Kashmir	64.8	3.1	3.6	0.1	4.0	2.8	2.3	4.4	3.3	11.6
8. Kerala	17.8	30.7	7.0	0.5	4.3	11.5	1.7	9.1	3.9	13.5
9. Madhya Pradesh	52.9	26.6	1.7	0.6	3.6	3.0	0.8	3.2	1.4	6.2
10. Maharashtra	35.5	29.3	1.6	0.2	3.2	10.0	1.5	6.7	3.0	9.0
11. Manipur	66.8	3.5	0.5	—	9.4	1.6	1.3	3.8	1.2	11.9
12. Meghalaya	69.2	9.8	2.7	0.2	1.1	1.3	0.9	2.9	1.3	10.6
13. Mysore	40.0	26.7	4.1	0.5	4.3	5.9	1.8	5.9	2.7	8.1
14. Nagaland	77.5	1.5	0.4	—	0.4	0.8	1.1	1.9	1.1	15.3
15. Orissa	49.2	28.3	2.1	0.8	3.6	2.3	0.6	3.3	1.4	8.4
16. Punjab	42.5	20.2	0.9	—	3.2	8.1	2.0	8.3	2.8	12.0
17. Rajasthan	64.9	9.3	2.5	0.4	3.4	3.2	1.3	4.4	2.0	8.5
18. Tamil Nadu	31.3	30.5	2.7	0.3	4.5	8.8	1.6	7.8	3.2	9.3
19. Tripura	54.4	19.9	2.3	—	1.4	2.1	0.7	5.8	1.4	12.0
20. Uttar Pradesh	57.4	20.0	0.6	—	3.7	3.6	0.6	4.1	1.7	8.3
21. West Bengal	32.0	26.5	2.9	0.9	2.7	11.4	1.0	7.9	4.2	10.5
22. Andaman & Nicobar	13.0	4.3	17.4	—	4.3	6.5	21.8	6.5	6.6	19.6
23. Arunachal Pradesh	78.1	1.9	0.4	—	0.4	—	—	0.7	—	—
24. Chandigarh	3.6	1.2	—	—	—	12.9	5.9	12.9	4.7	58.8
25. Dadra & Nagar Haveli	71.4	17.1	2.8	—	—	2.9	2.9	—	—	2.9
26. Delhi	2.6	1.3	0.9	—	2.3	21.6	5.3	19.9	9.3	36.8
27. Goa, Daman & Diu	23.9	15.1	5.1	5.9	5.9	6.3	4.4	9.5	8.8	15.1
28. L. M. & A. Islands	—	—	25.0	—	37.5	—	12.5	—	—	25.0
29. Pondicherry	12.1	32.6	5.0	—	1.4	16.3	2.8	11.4	2.8	15.6
All India	43.3	26.3	2.4	0.5	3.5	5.9	1.2	5.6	2.4	8.7

Source : Pocket Book of Population Statistics, 1971 Census, issued by the Registrar General, India, New Delhi.

(—) denotes 'Nil'

APPENDIX XIX (a)

Para 4.35

Distribution of population by sex and labour force status as percentage of total population of males, females and persons
NSS—19th Round
RURAL

State/Union Territory	Employed persons						Unemployed persons						Persons in labour force as percentage of the corresponding total population			Persons not in labour force as percentage of the corresponding total population		
	At work			Not at work			Seeking work			Not seeking but available for work			M	F	P	M	F	P
	M	F	P	M	F	P	M	F	P	M	F	P						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Andhra Pradesh	54.29	29.86	42.24	1.18	1.75	1.46	0.59	1.14	0.86	0.96	1.75	1.35	57.02	34.50	45.91	42.98	65.50	54.09
2. Assam	44.40	12.33	29.37	2.80	1.14	2.02	0.56	0.13	0.33	0.11	1.91	0.95	47.87	15.51	32.70	52.13	85.49	67.30
3. Bihar	48.06	13.79	30.55	1.70	0.87	1.27	0.37	0.56	0.47	0.80	1.98	1.41	50.93	17.20	33.70	49.07	82.80	66.30
4. Gujarat	49.67	31.09	40.91	0.33	0.62	0.47	0.89	0.75	0.82	0.22	0.12	0.18	51.11	42.58	42.38	48.89	67.42	57.62
5. Haryana	46.18	29.45	38.22	1.18	0.65	0.92	0.88	—	0.46	0.29	—	0.15	48.53	30.10	39.75	51.47	69.90	60.25
6. Jammu & Kashmir	43.89	4.68	26.29	2.48	0.12	1.42	0.19	—	0.11	0.86	—	0.47	47.42	4.80	28.29	52.58	95.20	71.71
7. Kerala	40.32	21.14	30.18	3.78	2.25	2.97	1.60	1.12	1.35	1.26	1.02	1.13	46.96	25.53	35.63	53.04	74.47	64.37
8. Madhya Pradesh	50.63	31.50	41.26	2.15	1.51	1.84	0.47	0.55	0.50	0.99	2.85	1.90	54.24	36.41	45.50	45.76	63.59	54.50
9. Madras	50.32	29.44	40.11	2.98	2.19	2.59	0.97	1.51	1.23	0.97	1.68	1.32	55.24	34.82	45.25	44.76	65.18	54.75
10. Maharashtra	50.62	32.32	41.70	1.54	1.06	1.30	0.65	1.18	0.91	0.41	1.06	0.73	53.22	35.62	44.64	46.78	64.38	55.36
11. Mysore	52.34	30.81	41.89	1.53	1.73	1.63	0.82	0.76	0.79	1.43	1.19	1.31	56.12	34.49	45.62	43.88	65.51	54.38
12. Orissa	47.80	14.39	30.88	2.63	0.85	1.73	0.88	1.59	1.24	1.63	3.05	2.35	52.94	19.88	36.20	47.06	80.12	63.80
13. Punjab	46.48	8.07	28.83	1.06	0.21	0.67	0.53	—	0.29	0.35	—	0.19	48.42	8.28	29.98	51.58	91.72	70.02
14. Rajasthan	53.61	43.81	48.89	1.73	1.64	1.69	0.51	0.33	0.42	0.81	1.42	1.11	56.66	47.20	52.11	43.34	52.80	47.89
15. Uttar Pradesh	51.63	21.20	37.04	1.72	0.54	1.16	0.38	0.12	0.26	0.01	1.16	0.88	54.34	23.02	39.34	45.66	76.98	60.66
16. West Bengal	47.17	10.87	29.33	1.33	0.43	0.89	0.92	0.43	0.68	0.59	0.26	0.43	50.01	11.99	31.33	49.99	88.01	68.67
17. Delhi	31.51	7.41	21.26	—	—	—	—	—	—	1.37	—	0.79	32.88	7.41	22.05	67.12	92.59	77.95
18. Himachal Pradesh	56.11	23.60	39.33	1.06	—	0.52	—	—	—	—	—	—	57.17	23.60	39.85	42.83	76.40	60.15
19. Manipur	39.12	25.32	32.08	3.52	4.64	4.09	0.44	—	0.22	0.88	2.32	1.61	43.96	32.28	38.00	56.04	67.72	62.00
20. Tripura	48.50	9.55	28.97	1.50	0.74	1.06	0.43	0.21	0.32	1.28	1.70	1.14	51.71	12.10	31.49	48.29	87.90	68.16
21. All India	49.78	23.54	36.93	1.81	1.12	1.47	0.64	0.67	0.65	0.78	1.43	1.10	53.01	26.76	40.15	46.99	73.24	59.85

Source : National Sample Survey—19th Round= Report No. 173 (July 1964— June 1965) issued by the Cabinet Secretariat, Government of India.

NOTE M= Males

F= Females

P= Persons

(—) denotes Nil

APPENDIX XIX(b)

Para 4.35

Distribution of population by sex and labour force status as percentage of the total population of males, females and persons
(NSS—17th to 21st Rounds)
(URBAN)

State/Territory	Round	Employed persons						Unemployed persons						Persons in labour force as percentage of the corresponding total population			Persons not in labour force as percentage of the corresponding total population			Persons for whom labour force status not recorded		
		At work			Not at work			New entrants			others											
		M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Andhra Pradesh	17th	47.61	13.42	30.78	1.28	0.86	1.07	0.67	0.25	0.46	1.05	0.49	0.78	50.62	15.02	33.09	48.86	84.41	66.36	0.52	0.57	0.55
	18th	48.19	16.26	32.42	1.63	0.84	1.24	0.37	0.05	0.21	0.39	0.34	0.36	50.58	17.49	34.23	48.15	81.07	64.42	1.27	1.44	1.35
	19th	46.58	13.12	30.12	1.64	0.59	1.13	0.46	0.08	0.27	0.40	0.22	0.31	49.08	14.01	31.83	50.63	85.19	67.63	0.29	0.80	0.54
	20th	46.47	15.56	31.01	1.83	0.55	1.21	0.28	—	0.14	0.34	0.08	0.21	48.97	16.19	32.57	50.71	83.29	67.01	0.32	0.52	0.42
	21st	49.36	14.37	31.97	0.75	0.30	0.53	0.35	0.06	0.21	0.39	0.16	0.28	50.86	14.89	32.99	48.98	84.94	66.85	0.16	0.17	0.16
2. Assam	17th	45.57	2.34	27.54	0.73	0.00	0.43	1.46	0.63	1.12	1.52	0.21	0.97	49.28	3.18	30.06	50.47	95.97	69.44	0.25	0.85	0.50
	18th	45.24	2.65	27.17	1.10	0.00	0.55	0.57	0.42	0.50	0.07	—	0.04	47.98	3.17	28.37	45.93	87.98	64.89	5.09	8.85	6.74
	19th	45.82	5.19	23.38	0.92	0.05	0.54	0.33	0.23	0.29	0.08	—	0.05	48.15	5.47	29.26	51.09	93.73	69.98	0.76	0.80	0.76
	20th	45.42	3.45	26.85	0.47	0.03	0.29	0.51	0.23	0.39	—	0.05	0.02	53.60	3.82	27.56	53.46	96.16	72.35	0.14	0.02	0.09
	21st	47.33	5.14	28.63	0.25	0.02	0.15	0.54	0.35	0.46	0.17	0.01	0.10	48.29	5.52	29.34	51.40	94.23	70.38	0.31	0.25	0.28
3. Bihar	17th	44.13	6.22	26.76	1.34	0.44	0.93	0.92	0.13	0.56	0.87	0.35	0.63	47.26	7.14	28.88	52.13	92.19	70.48	0.61	0.67	0.64
	18th	46.83	6.82	28.82	1.36	0.51	0.98	0.58	—	0.32	0.46	0.17	0.38	49.23	7.50	30.45	48.85	89.84	67.30	1.92	2.66	2.25
	19th	46.95	6.85	28.67	1.33	0.31	0.87	0.69	0.07	0.41	0.21	0.08	0.15	49.18	7.31	30.10	50.61	92.05	69.50	0.21	0.63	0.40
	20th	46.53	6.27	28.05	1.46	0.32	0.94	0.35	0.06	0.22	0.18	—	0.10	48.52	6.65	29.31	51.33	92.93	70.42	0.15	0.42	0.27
	21st	48.18	6.23	28.93	0.79	0.14	0.49	0.41	0.05	0.24	0.25	0.07	0.16	49.63	6.49	29.82	50.31	93.44	70.11	0.06	0.07	0.07

4. Gujarat	17th	43.55	9.32	27.54	0.64	0.20	0.43	0.30	0.10	0.21	0.45	0.08	0.28	44.94	9.70	28.46	54.49	89.85	71.03	0.57	0.45	0.51
	18th	43.29	6.89	25.79	1.34	0.23	0.81	0.23	—	0.12	0.40	0.03	0.22	45.26	7.15	26.94	53.18	89.73	70.75	1.56	3.12	2.31
	19th	44.12	7.49	27.00	0.65	0.08	0.38	0.12	—	0.06	0.19	0.08	0.14	45.08	7.65	27.58	54.66	92.16	72.20	0.26	0.19	0.22
	20th	40.73	6.25	24.01	1.02	0.07	0.56	0.33	0.12	0.22	0.26	0.02	0.15	42.34	6.46	24.94	57.49	93.31	74.86	0.17	0.23	0.20
	21st	44.55	8.09	26.92	0.36	0.13	0.25	0.36	0.08	0.23	0.23	0.01	0.12	45.50	8.31	27.52	54.38	91.55	72.35	0.12	0.14	0.13
5. Jammu and Kashmir	17th	47.99	2.80	26.60	0.63	0.14	0.40	0.41	0.03	0.23	0.25	0.02	0.14	49.28	2.99	27.37	50.43	96.52	72.25	0.29	0.49	0.38
	18th	45.14	1.67	24.50	2.07	0.05	1.11	0.39	—	0.20	0.10	0.09	0.10	47.70	1.81	25.91	51.50	96.56	72.90	0.80	1.63	1.19
	19th	44.29	1.09	23.86	1.06	0.12	0.62	0.16	0.03	0.10	0.03	—	0.01	45.54	1.24	24.59	54.46	98.43	75.26	—	0.33	0.15
	20th	44.30	0.81	24.07	0.37	0.11	0.24	0.24	—	0.13	0.15	—	0.08	45.06	0.92	24.52	54.94	99.01	75.45	—	0.07	0.03
	21st	45.73	1.36	24.78	0.13	0.01	0.07	0.15	0.02	0.09	0.05	0.01	0.03	46.06	1.40	24.97	53.88	98.58	74.99	0.06	0.02	0.04
6. Kerala	17th	44.91	12.20	28.74	2.51	0.96	1.74	1.24	0.89	1.07	1.91	0.22	1.08	50.57	14.27	32.63	48.75	85.02	66.68	0.68	0.71	0.69
	18th	42.54	14.00	28.19	2.53	0.68	1.60	1.29	0.80	1.04	1.41	0.48	0.94	47.77	15.96	31.77	51.10	82.89	67.09	1.13	1.15	1.14
	19th	43.42	16.34	29.72	2.88	1.19	2.03	1.33	1.08	1.20	1.07	0.28	0.67	48.70	18.89	33.62	50.37	80.09	65.40	0.93	1.02	0.98
	20th	41.50	12.44	26.89	2.35	1.06	1.70	1.42	0.78	1.10	0.87	0.17	0.52	46.14	14.45	30.31	53.51	85.18	69.43	0.35	0.37	0.36
	21st	43.63	14.65	29.32	1.95	0.51	1.24	1.27	0.78	1.03	1.05	0.38	0.72	47.90	16.32	32.31	51.87	83.53	67.50	0.23	0.15	0.1
7. Madhya Pradesh	17th	46.97	14.78	31.93	2.19	0.97	1.62	0.46	0.08	0.28	0.67	0.31	0.50	50.29	16.14	34.33	49.28	82.90	64.99	0.43	0.96	0.68
	18th	44.58	10.02	28.29	2.15	0.87	1.55	0.44	0.11	0.28	0.46	0.28	0.38	47.63	11.28	30.50	49.59	86.25	66.87	2.78	2.47	2.63
	19th	43.91	9.75	27.94	2.07	0.67	1.41	0.23	0.03	0.14	0.37	0.06	0.22	46.58	10.51	29.71	53.15	89.20	70.01	0.27	0.29	0.28
	20th	43.03	10.92	28.17	2.19	0.67	1.49	0.33	0.03	0.19	0.45	0.13	0.20	46.00	11.75	30.15	53.60	87.00	69.31	0.32	0.37	0.34
	21st	45.89	11.73	29.87	1.33	0.55	0.96	0.32	0.08	0.20	0.23	0.12	0.18	47.77	12.48	31.21	52.11	87.33	68.64	0.12	0.19	0.15
8. Madras	17th	47.74	13.44	30.61	1.96	0.47	1.22	0.73	0.18	0.45	1.70	0.34	1.01	52.13	14.43	33.29	47.19	84.74	65.95	0.68	0.83	0.76
	18th	49.67	10.02	32.01	1.72	0.69	1.21	0.76	0.35	0.55	1.27	0.19	0.74	53.42	15.25	34.51	45.54	82.59	63.89	1.04	2.16	1.60
	19th	48.52	14.69	31.87	1.42	0.23	0.84	0.75	0.19	0.48	0.82	0.19	0.51	51.51	15.30	33.70	48.38	84.55	66.17	0.11	0.15	0.13
	20th	45.61	14.45	30.84	1.23	0.51	0.89	0.89	0.23	0.57	0.86	0.38	0.63	48.59	15.57	32.93	51.24	84.27	66.90	0.17	0.16	0.17
	21st	50.69	15.83	33.35	0.58	0.26	0.42	0.89	0.23	0.56	0.54	0.13	0.34	52.70	16.45	34.67	47.20	83.39	65.20	0.10	0.16	0.13

M= Male
F= Female
P= Persons
(—) denotes 'Nil'

APPENDIX XIX(b)—contd.

State/Union Territory	Round	Employed persons						Unemployed Persons						Persons in Labour Force as percentage of corresponding total population			Persons not in Labour Force as percentage of corresponding total population			Persons for whom labour force status not recorded		
		At Work			Not at work			New entrants			Others			M	F	P	M	F	P	M	F	P
		M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
9. Maharashtra	17th	50.84	10.52	32.31	1.00	0.64	0.84	0.65	0.14	0.41	0.66	0.14	0.42	53.15	11.44	33.98	45.87	87.67	65.08	0.98	0.89	0.94
	18th	48.36	11.45	31.35	1.53	0.69	1.14	0.45	0.14	0.31	0.42	0.04	0.24	50.76	12.32	33.04	47.58	85.34	64.99	1.66	2.34	1.97
	19th	49.76	10.90	32.07	1.14	0.37	0.79	0.49	0.10	0.31	0.65	0.11	0.40	52.04	11.48	33.57	47.13	87.31	65.43	0.83	1.21	1.00
	20th	50.15	10.32	31.90	1.22	0.45	0.87	0.62	0.14	0.40	0.53	0.06	0.31	52.52	10.97	33.48	47.24	88.85	66.31	0.24	0.18	0.21
	21st	51.96	10.76	33.15	0.44	0.18	0.32	0.40	0.10	0.27	0.42	0.06	0.26	53.22	11.10	34.00	46.68	88.80	65.90	0.10	0.10	0.10
10. Mysore	17th	47.11	12.82	30.05	1.80	0.95	1.38	0.58	0.31	0.45	0.71	0.07	0.39	50.20	14.15	32.27	48.96	84.99	66.88	0.84	0.86	0.85
	18th	47.82	13.69	31.06	1.41	0.69	1.07	0.30	0.10	0.20	0.89	0.07	0.24	48.92	14.55	32.57	49.69	83.99	66.01	1.39	1.46	1.42
	19th	45.15	11.76	28.79	1.24	0.59	0.92	0.69	0.11	0.40	0.30	0.15	0.23	47.38	12.61	30.34	52.21	86.80	69.16	0.41	0.59	0.50
	20th	43.91	10.67	27.99	1.98	0.54	1.29	0.56	0.17	0.37	0.22	0.26	0.24	46.67	11.64	29.89	52.93	87.65	69.56	0.40	0.71	0.55
	21st	47.49	12.33	30.51	0.63	0.31	0.48	0.53	0.19	0.37	0.22	0.03	0.13	48.87	12.86	31.49	51.05	87.09	68.44	0.08	0.05	0.07
11. Orissa	17th	51.66	9.84	30.92	1.56	0.44	1.00	0.49	0.22	0.36	0.66	0.07	0.37	54.37	10.57	32.65	44.21	87.79	65.82	1.42	1.64	1.53
	18th	46.96	10.16	29.71	1.25	0.24	0.78	0.47	0.15	0.32	0.37	0.13	0.26	49.05	10.68	31.07	48.31	84.93	65.47	2.64	4.39	3.46
	19th	50.16	10.84	32.10	1.41	0.38	0.93	0.44	0.24	0.35	0.16	0.05	0.11	52.17	11.51	33.49	47.72	88.35	66.38	0.11	0.14	0.13
	20th	50.14	7.57	31.01	0.96	—	0.53	0.36	0.10	0.24	0.16	0.06	0.11	51.62	7.73	31.89	48.09	92.17	67.91	0.29	0.10	0.20
	21st	50.87	9.74	31.88	0.78	0.30	0.56	0.35	0.11	0.24	0.25	0.15	0.20	52.25	10.30	32.88	47.56	89.56	66.95	0.19	0.14	0.1

12. Punjab*	17th*	43.73	4.43	26.17	1.24	0.25	0.80	0.40	0.05	0.24	0.52	0.00	0.29	49.89	4.73	27.50	52.28	93.82	70.85	1.83	1.45	1.65
	18th*	41.56	3.51	24.12	1.54	0.31	0.98	0.12	—	0.06	0.13	—	0.07	43.35	3.82	25.23	54.35	92.23	71.74	2.30	3.88	3.03
	19th*	45.94	5.68	27.31	1.07	0.11	0.62	0.18	0.05	0.12	0.16	—	0.09	47.35	5.84	28.14	52.08	93.34	71.18	0.57	0.82	0.68
	20th	40.37	6.01	24.82	0.41	0.08	0.26	0.34	—	0.19	0.34	0.16	0.26	41.46	6.25	25.53	58.54	93.67	74.43	—	0.08	0.04
	21st	46.62	5.10	27.56	0.45	0.05	0.27	0.20	0.02	0.12	0.19	—	0.10	47.46	5.17	28.05	52.53	93.73	71.90	0.01	0.10	0.05
13. Haryana**	20th	46.08	5.00	27.22	1.36	0.28	0.87	0.04	—	0.02	0.28	0.09	0.19	47.76	5.37	28.30	52.08	94.25	71.44	0.16	0.38	0.26
	21st	43.14	5.56	26.03	0.14	—	0.08	0.41	0.06	0.25	0.14	0.03	0.09	43.83	5.65	26.45	55.81	94.21	73.29	0.36	0.14	0.26
14. Rajasthan	17th	45.16	12.81	29.86	1.65	0.46	1.09	0.51	0.13	0.33	0.59	0.07	0.35	47.91	13.47	31.63	51.45	85.97	67.77	0.64	0.56	0.60
	18th	43.40	10.16	27.58	2.70	0.56	1.68	0.23	0.08	0.16	0.28	0.15	0.22	46.61	10.95	29.64	52.45	87.40	69.08	0.94	1.65	1.28
	19th	42.17	11.32	27.70	1.91	0.71	1.35	0.40	0.07	0.25	0.36	0.07	0.22	44.84	12.17	29.52	54.97	87.62	70.28	0.19	0.21	0.20
	20th	41.93	14.28	28.46	1.86	0.50	1.20	0.40	—	0.20	0.30	0.02	0.16	44.49	14.80	30.02	55.31	84.72	69.64	0.20	0.48	0.34
	21st	43.91	16.03	30.25	0.97	0.61	0.80	0.27	—	0.14	0.33	0.06	0.20	45.48	16.70	31.39	54.42	83.22	68.52	0.10	0.08	0.09
15. Uttar Pradesh	17th	47.88	6.83	28.91	1.69	0.27	1.03	0.50	0.04	0.29	0.65	0.06	0.38	50.72	7.20	30.61	48.74	92.29	68.86	0.54	0.51	0.53
	18th	47.45	6.31	28.41	1.94	0.33	1.19	0.27	0.04	0.16	0.30	—	0.16	49.96	6.68	29.92	48.48	91.10	68.22	1.56	2.22	1.86
	19th	47.48	6.90	29.10	1.73	0.26	1.06	0.35	0.09	0.25	0.36	0.06	0.22	49.92	7.31	30.61	49.85	92.24	69.06	0.23	0.45	0.33
	20th	47.00	6.85	28.61	1.93	0.27	1.17	0.21	0.02	0.12	0.40	0.05	0.24	49.54	7.19	30.14	50.33	92.68	69.73	0.13	0.13	0.13
	21st	48.00	7.12	29.34	0.79	0.08	0.47	0.18	0.03	0.11	0.15	0.01	0.09	49.12	7.24	30.01	50.79	92.68	69.91	0.09	0.08	0.08
16. West Bengal	17th	54.35	5.17	33.49	0.44	0.12	0.31	1.16	0.12	0.72	0.81	0.06	0.49	56.76	5.47	35.01	43.18	94.44	64.92	0.06	0.09	0.07
	18th	57.25	5.10	35.55	0.72	0.05	0.44	1.04	0.17	0.68	0.45	0.09	0.30	59.46	5.41	36.97	39.51	92.85	61.71	1.03	1.74	1.32
	19th	55.93	5.69	33.84	0.62	0.10	0.39	0.97	0.16	0.61	0.30	—	0.17	57.82	5.95	35.01	41.32	92.88	63.99	0.86	1.17	1.00
	20th	54.83	5.33	33.85	0.54	0.04	0.32	0.52	0.27	0.42	0.35	0.17	0.28	56.24	5.81	34.87	43.64	94.09	65.01	0.12	0.10	0.12
	21st	55.62	5.25	34.06	0.35	0.03	0.21	0.53	0.10	0.35	0.28	0.01	0.17	56.78	5.39	34.79	43.19	94.58	65.18	0.03	0.03	0.03
17. Delhi	17th	50.97	3.24	29.72	0.65	0.05	0.38	0.73	0.16	0.48	1.10	0.11	0.66	53.45	3.56	31.24	46.38	96.34	68.62	0.17	0.10	0.14
	18th	49.63	3.53	29.88	0.54	0.09	0.35	0.54	0.09	0.35	0.34	—	0.19	51.05	3.71	30.77	48.20	95.29	68.38	0.75	1.00	0.85
	19th	50.02	4.04	29.54	0.71	0.20	0.48	0.24	0.20	0.22	0.04	—	0.02	51.01	4.44	30.26	48.72	95.02	69.35	69.35	0.54	0.39
	20th	47.31	4.80	28.33	1.07	0.18	0.67	0.48	0.06	0.29	0.34	0.24	0.29	49.20	5.28	29.58	50.80	94.42	70.29	..	0.30	0.13
	21st	52.91	6.66	32.45	0.61	0.24	0.45	0.31	0.24	0.28	0.18	0.04	0.12	54.01	7.18	33.30	45.94	92.74	66.64	0.05	0.08	0.0

*Includes the State of Haryana and the Union Territory of Chandigarh.

**Data for earlier Rounds included in the state of Punjab.

(—) denotes 'Nil'

APPENDIX XIX(b)—contd.

State/Union Territory	Round	Employed Persons						Un-employed Persons						Persons in Labour Force as percentage of corresponding total population			Persons not in Labour Force as percentage of corresponding total population			Persons for whom labour forces status Not recorded		
		At Work			Not at Work			New entrants			Others			M	F	P	M	F	P	M	F	P
		M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
18. Chandigarh*	20th	45.89	7.45	30.83	—	—	—	—	—	—	—	—	—	45.89	7.45	30.83	54.11	92.55	69.17	—	—	—
	21st	51.99	3.53	30.76	0.61	0.39	0.52	0.31	—	0.17	—	—	—	52.91	3.92	33.45	47.09	96.08	68.55	—	—	—
19. Himachal Pradesh**	18th	42.75	4.04	26.09	0.76	1.01	0.87	—	—	—	—	—	42.51	6.05	36.96	55.73	93.94	72.14	0.76	1.01	0.87	
	19th	54.59	9.49	36.18	0.87	—	0.52	0.44	—	0.26	—	—	55.90	9.49	36.96	44.10	90.51	63.04	—	—	—	
	20th	49.32	3.88	29.56	2.97	1.75	2.44	—	—	—	1.35	—	53.64	5.63	32.76	46.36	94.37	67.24	—	—	—	
	21st	51.89	4.73	30.72	2.0	—	1.12	—	—	—	—	—	53.92	4.73	31.84	45.64	95.27	67.92	0.44	..	0.24	
20. Manipur	17th	39.70	41.59	40.72	3.50	1.86	2.62	0.50	—	0.23	—	—	43.70	43.45	45.57	56.30	56.55	56.43	—	—	—	
	18th	34.15	30.74	32.29	1.27	2.03	3.04	0.81	—	0.37	0.41	0.34	39.64	33.11	36.07	57.92	61.82	60.06	2.44	5.07	3.87	
	19th	37.14	23.41	30.51	1.13	1.20	1.16	0.80	—	0.42	0.16	—	0.08	39.23	24.61	32.17	60.29	74.70	67.25	0.48	0.69	0.58
	20th	34.55	24.90	29.91	1.88	0.27	1.11	0.75	—	0.39	..	0.14	0.07	37.18	25.31	31.48	62.82	74.69	68.52	—	—	—
	21st	35.75	24.39	30.1	1.61	0.56	1.09	0.67	0.05	0.36	0.27	—	0.14	38.30	25.00	31.76	61.66	74.91	68.17	0.04	0.09	0.07
21. Tripura	17th	47.54	4.72	26.53	1.00	0.25	0.63	1.94	1.20	1.58	0.88	0.10	0.50	51.36	6.27	29.24	48.36	92.82	70.17	0.28	0.91	0.39
	18th	41.24	4.53	24.79	1.94	0.48	1.28	1.26	0.48	0.91	0.48	—	0.27	44.92	5.49	27.25	54.40	92.60	71.52	0.68	1.91	1.25
	19th	39.91	4.20	22.94	2.50	2.33	1.47	1.34	0.82	1.10	0.19	0.16	0.18	43.94	5.51	25.09	55.09	93.31	73.20	0.97	1.28	1.11
	20th	40.11	8.07	24.54	2.38	0.25	1.35	1.59	1.09	1.35	0.24	..	0.12	44.32	9.41	27.36	54.97	89.67	71.82	0.71	0.92	0.82
	21st	42.60	5.50	24.91	0.36	0.16	0.26	1.41	0.95	1.19	0.46	0.18	0.33	44.83	6.79	26.69	55.07	93.10	73.21	0.10	0.11	0.10
22. Goa, Daman & Diu***	17th																					
	18th																					
	19th																					
	20th																					
	21st	48.36	10.92	29.26	0.22	0.42	0.32	0.22	..	0.11	..	..	..	48.80	11.34	29.69	51.20	88.66	70.31			

23. Pondicherry*	17th																						
	18th																						
	19th																						
	20th																						
	21st	49.20	9.26	29.76	0.21	0.11	0.16	0.64	0.23	0.44	0.86	—	0.44	50.91	9.60	30.80	49.09	90.40	69.20	—	—	—	
ALL INDIA	17th	48.06	9.98	30.20	1.35	0.51	0.96	0.67	0.18	0.44	0.87	0.18	0.54	50.95	10.85	32.14	48.40	88.47	67.19	0.65	0.68	0.67	
	18th	47.74	9.69	29.97	1.58	0.51	1.08	0.48	0.13	0.32	0.48	0.12	0.31	50.28	10.45	31.68	48.19	87.31	66.46	1.53	2.24	1.86	
	19th	47.89	9.75	30.08	1.33	0.36	0.88	0.53	0.14	0.34	0.42	0.10	0.27	50.17	10.35	31.57	49.41	89.01	67.90	0.43	0.64	0.53	
	20th	46.68	9.70	29.46	1.42	0.39	0.94	0.49	0.13	0.32	0.43	0.13	0.29	49.02	10.35	31.01	50.78	89.36	68.75	0.20	0.29	0.24	
	21st	49.12	10.42	30.96	0.67	0.23	0.46	0.45	0.13	0.30	0.32	0.07	0.21	50.56	10.85	31.93	49.34	89.04	67.96	0.10	0.11	0.11	

*Data for the earlier rounds included in the State Punjab.

**Data for the 17th Round not available.

***Data available for 21st Round only.

(—) deotes 'Nil'.

Source : National Sample Survey 17th Round Report No. 127,
18th Round Report No. 152,
19th Round Report No. 163,
20th Round Report No. 166,
21st Round Report No. 181.

APPENDIX XX

(Para 4.37)

Percentage of population in the small cultivator households and non-cultivating wage earner households to the total rural population*

(NSS—25th Round)

State/Union Territory	Small cultivator households			Non-cultivating wage earner households		
	Males	Females	Persons	Males	Females	Persons
1	2	3	4	5	6	7
1. Andhra Pradesh	3.92	4.41	4.16	19.51	21.58	20.45
2. Assam	7.90	7.67	7.79	5.57	5.72	5.64
3. Bihar	5.84	1.09	5.40	1.16	1.09	1.13
4. Delhi	1.10	1.30	1.20	4.75	5.66	5.16
5. Gujarat	3.71	3.48	3.60	7.84	7.66	7.75
6. Haryana	2.80	3.10	2.94	12.34	12.96	12.63
7. Kerala	1.28	1.35	1.32	0.92	0.97	0.95
8. Maharashtra	4.66	4.50	4.59	12.78	13.50	13.13
9. Mysore	3.08	3.15	3.11	8.10	8.63	8.36
10. Madhya Pradesh	5.01	4.81	4.91	7.95	7.67	7.81
11. Manipur	2.07	2.43	2.25	0.18	0.11	0.14
12. Orissa	5.07	4.99	5.03	9.68	10.07	9.88
13. Punjab	1.49	1.50	1.49	2.15	2.00	2.08
14. Rajasthan	4.33	4.34	4.34	2.97	2.78	2.88
15. Tamil Nadu	4.14	3.99	4.07	31.74	26.50	29.13
16. Tripura	3.00	3.41	3.20	1.33	1.42	1.37
17. Uttar Pradesh	3.62	3.34	3.48	4.94	5.04	4.99

*Rural population of different States as given in Provisional Population Tables—Paper I Supplementary 1971 Census.

APPENDIX XXI
(Para 4.37)

Percentage distribution of the estimated number of mandays spent under different types of activity by persons in small cultivator and non-cultivating wage earner households

(NSS—25th round)

(a) Males

State/Union Territory	Small cultivator households			Non cultivating wage earner households		
	Employed	Unemployed	Outside labour force	Employed	Unemployed	Outside labour force
1	2	3	4	5	6	7
1. Andhra Pradesh	58.0	2.5	39.5	58.5	4.1	37.4
2. Assam	46.5	0.7	52.8	48.0	1.8	50.2
3. Bihar	48.6	3.2	48.2	48.6	5.0	46.4
4. Delhi	47.9	4.2	47.9	37.4	10.0	52.6
5. Gujarat	51.8	2.5	45.7	49.3	3.8	46.9
6. Harayana	50.7	1.6	47.7	45.3	3.2	51.5
7. Kerala	39.5	10.5	50.0	40.3	10.8	48.9
8. Madhya Pradesh	54.1	0.9	45.0	54.9	1.4	43.7
9. Maharashtra	51.0	1.9	47.1	53.9	2.8	43.3
10. Manipur	51.0	1.0	48.0	21.1	..	78.9
11. Mysore	57.5	0.6	41.9	58.3	0.8	40.9
12. Orissa	47.5	0.4	52.1	51.2	0.5	48.3
13. Punjab	55.0	0.4	44.6	45.4	6.7	47.9
14. Rajasthan	54.0	1.3	44.7	53.7	3.1	43.2
15. Tamil-Nadu	54.5	5.0	40.5	48.7	7.0	44.3
16. Tripura	51.2	1.2	47.6	48.9	4.8	46.3
17. Uttar Pradesh	55.0	1.3	43.7	52.0	2.2	45.8

(b) Females

1. Andhra Pradesh	34.7	2.2	63.7	33.9	2.6	63.5
2. Assam	11.7	0.1	88.2	10.9	1.0	88.1
3. Bihar	38.4	2.2	69.4	26.9	2.7	70.4
4. Delhi	37.7	—	62.3	21.6	3.5	74.9
5. Gujarat	33.0	1.4	65.6	31.9	2.8	65.3
6. Harayana	12.1	—	87.9	12.0	..	88.0
7. Kerala	23.2	3.9	72.9	27.5	7.7	64.8
8. Madhya Pradesh	35.6	0.8	63.6	41.8	1.2	57.0

(—) denotes "Nil".

APPENDIX XXI—*contd.*

(b) Females

State/Union Territory	Small cultivator households			Non cultivating wage earner households		
	Employed	Un-employed	Outside labour force	Employed	Un-employed	Outside labour force
1	2	3	4	5	6	7
9. Maharashtra	37.8	0.7	61.5	37.8	2.3	59.9
10. Manipur	30.0	..	70.0	12.5	—	87.5
11. Mysore	39.7	0.4	59.9	41.4	0.1	58.5
12. Orissa	20.4	0.0	79.6	23.5	0.2	76.3
13. Punjab	6.0	..	94.0	10.0	—	90.0
14. Rajasthan	26.0	0.5	73.5	29.8	2.2	68.0
15. Tamil Nadu	34.0	2.0	64.0	28.0	2.0	70.0
16. Tripura	14.8	0.3	84.9	14.1	0.6	85.3
17. Uttar Pradesh	19.6	0.6	79.8	16.0	0.2	83.8

(c) Persons

1. Andhra Pradesh	45.4	2.3	52.3	45.6	3.3	51.1
2. Assam	30.3	0.4	69.3	30.0	1.4	68.6
3. Bihar	39.4	2.8	57.8	38.3	3.9	57.1
4. Delhi	43.4	2.1	54.5	29.4	6.7	63.8
5. Gujarat	42.9	2.0	55.1	40.8	3.2	56.0
6. Haryana	31.6	0.8	67.6	29.4	1.6	69.0
7. Kerala	31.1	7.1	61.8	33.6	9.2	57.2
8. Madhya Pradesh	45.1	0.9	54.0	48.7	1.3	50.0
9. Manarashtra	44.6	1.3	54.1	45.6	2.5	51.9
10. Manipur	39.8	0.5	59.7	17.9	—	82.1
11. Mysore	48.6	0.5	50.9	49.6	0.5	50.9
12. Orissa	34.0	0.3	65.7	37.1	0.4	62.5
13. Punjab	32.2	0.2	67.6	29.4	3.7	66.9
14. Rajasthan	40.6	0.9	58.5	52.6	2.7	44.8
15. Tamil Nadu	43.4	3.6	53.0	39.3	4.8	55.9
16. Tripura	32.2	0.8	67.0	31.4	2.7	65.9
17. Uttar Pradesh	39.0	1.0	60.0	34.8	1.2	64.0

(—) denotes 'Nil'.

APPENDIX XXII

(Para 4.37)

Percentage distribution of the estimated number of man-days in a week according to labour force status of persons in the age-group 15-59 belonging to small cultivator households and non-cultivating wage earner households

(NSS 25th Round)

(a) Males

State/Union Territory	Small cultivator households						Non-cultivating wage earner households					
	Employed		Unemployed		Outside labour force		Employed		Unemployed		Outside labour force	
	15-44	45-59	15-44	45-59	15-44	45-59	15-44	45-59	15-44	45-59	15-44	45-59
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Andhra Pradesh	89.7	88.2	3.9	4.6	6.4	7.2	87.6	84.7	6.5	5.3	5.9	10.0
2. Assam	88.5	91.5	1.5	0.5	10.0	8.0	86.6	86.7	2.3	5.6	11.1	7.7
3. Bihar	86.7	85.5	5.5	4.1	7.8	10.4	84.7	86.4	8.2	7.0	7.1	6.6
4. Delhi	82.6	100.0	11.1	—	6.3	—	67.2	66.2	16.4	33.8	16.4	—
5. Gujarat	90.9	89.5	3.9	6.1	5.2	4.4	84.0	89.5	6.4	4.0	9.6	6.5
6. Haryana	77.4	98.5	3.9	—	18.7	1.5	85.5	91.0	6.4	—	8.1	9.0
7. Kerala	66.3	67.1	18.1	21.8	15.6	11.1	67.9	80.5	21.3	15.3	10.8	4.2
8. Madhya Pradesh	92.0	90.9	1.6	1.7	6.4	7.4	92.6	92.8	1.7	3.2	5.7	4.0
9. Maharashtra	88.0	92.3	3.4	2.9	8.6	4.8	89.2	87.1	3.5	8.9	7.3	4.0
10. Manipur	85.3	89.1	1.4	—	13.3	10.9	25.0	50.0	—	—	75.0	50.0
11. Mysore	90.5	91.6	1.0	0.5	8.5	7.9	95.4	94.5	0.8	2.7	3.8	2.8
12. Orissa	77.6	81.3	0.6	0.9	21.8	17.8	85.4	87.6	1.3	—	13.3	12.4
13. Punjab	87.2	92.7	0.5	0.8	12.3	6.5	84.4	80.6	12.3	15.8	3.3	3.6
14. Rajasthan	88.9	91.8	2.6	2.7	8.5	5.5	88.4	79.4	5.6	3.0	6.0	17.6
15. Tamil Nadu	80.9	87.0	8.0	6.5	11.1	6.5	78.7	77.0	12.2	9.1	9.1	13.9
16. Tripura	87.8	94.4	1.8	1.7	10.4	3.9	81.4	70.8	9.7	21.9	8.9	7.3
17. Uttar Pradesh	90.8	94.1	2.1	1.6	7.1	4.3	89.1	84.4	4.2	2.2	6.7	13.4

Source : Reports on Employment & Unemployment in Rural Areas (handbook on the results of 25th Round of Survey-1970-71) issued by National Sample Survey Organisation, Department of Statistics, Cabinet Secretariat, Government of India.

(—) denotes 'Nil'

APPENDIX XXII—*contd.*

(b) Females

State/Union Territory	Small cultivator households						Non-cultivating wage earner households					
	Employed		Unemployed		Outside labour force		Employed		Unemployed		Outside labour force	
	15-44	45-59	15-44	45-59	15-44	45-59	15-44	45-59	15-44	45-59	15-44	45-59
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Andhra Pradesh	60.3	25.7	3.3	1.6	36.4	72.7	57.6	53.0	3.7	7.9	38.7	39.1
2. Assam	21.1	14.1	0.2	..	78.7	85.9	20.6	21.2	1.6	—	77.8	78.8
3. Bihar	44.0	53.7	4.1	2.7	51.9	43.6	47.3	46.2	4.9	3.6	47.8	50.3
4. Delhi	56.6	66.6	—	—	43.4	33.4	40.3	24.7	8.4	—	51.3	75.3
5. Gujarat	54.9	45.6	2.5	2.3	42.6	52.1	51.6	43.1	4.0	5.6	44.4	51.3
6. Haryana	25.2	14.7	—	—	74.8	85.3	20.0	31.8	—	—	80.0	68.2
7. Kerala	36.0	36.8	5.0	8.6	59.0	54.6	42.7	40.3	14.5	11.0	42.8	48.7
8. Madhya Pradesh	59.1	60.7	1.3	0.6	39.6	38.7	69.1	61.8	1.4	3.9	29.5	34.3
9. Maharashtra	66.4	67.9	1.2	0.5	32.4	31.6	63.9	60.1	3.9	5.9	32.2	34.0
10. Manipur	48.5	57.4	—	—	51.5	42.6	25.0	—	—	—	75.0	100.0
11. Mysore	58.5	64.1	0.9	—	40.6	35.9	67.9	60.6	0.1	0.9	32.0	38.5
12. Orissa	30.4	33.7	0.0	0.4	69.6	65.9	36.6	32.1	0.1	—	63.3	67.9
13. Punjab	10.4	12.1	—	—	89.6	87.9	13.2	25.1	—	—	86.8	74.9
14. Rajasthan	45.1	36.9	1.0	—	53.9	63.1	40.6	56.3	4.7	1.0	54.7	42.7
15. Tamil Nadu	47.0	45.1	3.4	1.5	49.6	53.4	41.8	38.5	2.9	4.6	55.3	56.9
16. Tripura	25.6	25.2	0.6	—	73.8	74.8	19.3	44.1	0.6	—	80.1	55.9
17. Uttar Pradesh	31.9	29.6	1.0	1.0	67.1	69.4	25.1	36.6	0.4	0.3	74.4	63.1

1. Andhra Pradesh	.	.	74.8	44.5	3.6	2.5	21.6	53.0	72.4	70.0	5.1	6.5	22.5	23.5
2. Assam	.	.	54.1	71.7	0.8	0.3	45.1	28.0	54.6	60.3	2.0	3.6	43.4	36.1
3. Bihar	.	.	66.2	70.9	4.8	3.4	29.0	25.7	66.5	66.5	6.6	5.4	26.9	28.1
4. Delhi	.	.	69.3	82.3	5.4	—	25.3	17.7	53.5	45.4	12.4	16.9	34.1	37.7
5. Gujarat	.	.	74.0	68.6	3.2	4.3	22.8	27.1	68.5	64.1	5.3	4.9	26.2	31.0
6. Haryana	.	.	52.7	60.4	2.0	—	45.3	39.6	52.6	61.3	3.2	..	44.2	38.7
7. Kerala	.	.	49.4	53.6	10.7	15.9	39.9	30.5	55.0	65.3	17.8	12.6	27.2	22.1
8. Madhya Pradesh	.	.	76.2	75.9	1.5	1.2	22.3	22.9	81.0	77.0	1.5	3.5	17.5	19.5
9. Maharashtra	.	.	76.9	82.2	2.3	1.9	20.8	15.9	76.3	75.0	3.7	7.6	20.0	17.4
10. Manipur	.	.	65.3	71.1	0.6	—	34.1	28.9	25.0	25.0	—	—	75.0	75.0
11. Mysore	.	.	74.2	79.5	0.9	0.3	24.9	20.2	80.9	78.2	0.4	1.9	18.7	19.9
12. Orissa	.	.	53.6	58.2	0.3	0.7	46.1	41.1	59.6	56.5	0.6	—	39.8	43.5
13. Punjab	.	.	49.4	60.0	0.0	0.4	50.6	39.6	48.5	55.8	6.1	8.7	45.4	35.5
14. Rajasthan	.	.	67.6	66.0	1.8	1.4	30.6	32.6	66.5	66.0	5.2	1.8	28.3	32.2
15. Tamilnaru	.	.	63.5	69.0	5.6	4.4	30.9	26.6	61.3	59.6	7.8	7.0	30.9	33.4
16. Tripura	.	.	54.2	64.5	1.1	1.0	44.7	34.5	52.4	65.8	5.5	—	42.1	34.2
17. Uttar Pradesh	.	.	64.4	64.9	1.6	1.4	34.0	33.7	59.2	65.4	2.5	1.4	38.3	33.2

(—) denotes "Nil"

APPENDIX XXIII

(Para 4.37)

Average rates of earnings from agricultural and other occupations by persons in weaker sections of the rural population classified by sex and age groups

(NSS-25th Round)

(a) SMALL CULTIVATOR HOUSEHOLDS*—MALES

State/Union Territory	Average earning (in Rupees) per man-day																	
	For those who worked in other farms for Salary or Wages						For those who worked in Non-farm occupations as non-self employed						For all non-self employed					
	Age Group in years						Age Group in years						Age Group in years					
	0-9	10-14	15-44	45-59	60 & above	All ages	0-9	10-14	15-44	45-59	60 & above	All ages	0-9	10-14	15-44	45-59	60 & above	All ages
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Andhra Pradesh	0.65	1.35	1.95	2.09	1.64	1.92	0.85	1.57	1.85	2.01	2.90	1.86	0.68	1.40	1.94	2.08	1.72	1.91
2. Assam	0.86	1.93	3.71	3.50	3.58	3.63	—	3.11	3.53	3.46	4.50	3.51	0.85	2.28	3.68	3.49	3.68	3.61
3. Bihar	1.00	1.74	2.26	2.27	2.11	2.23	—	1.66	2.75	2.32	2.08	2.66	1.00	1.73	2.32	2.28	2.10	2.28
4. Delhi	—	—	3.15	—	—	3.15	—	—	3.76	2.87	4.00	3.53	—	—	3.57	2.87	4.00	3.45
5. Gujarat	—	1.34	1.98	2.04	1.52	1.95	—	1.07	1.73	2.45	1.75	1.68	—	1.25	1.94	2.06	1.56	1.91
6. Haryana	—	2.28	3.87	4.06	—	3.64	—	—	4.70	4.00	—	4.52	—	2.28	4.24	4.03	—	3.99
7. Kerala	—	1.74	3.36	3.55	3.64	3.40	—	1.61	3.94	4.35	3.44	3.89	—	1.66	3.57	3.76	3.56	3.57
8. Maharashtra	—	1.04	2.17	2.22	1.85	2.17	—	1.17	2.82	2.34	2.25	2.65	—	1.04	2.32	2.23	1.87	2.22
9. Mysore	—	1.21	2.12	1.98	1.96	2.05	—	1.00	2.36	2.56	2.57	2.31	—	1.18	2.14	2.01	2.02	2.08
10. Madhya Pradesh	1.10	0.99	1.79	1.63	1.38	1.69	—	1.07	2.09	1.52	2.57	1.94	1.10	1.00	1.82	1.62	1.51	1.71
11. Manipur	—	—	4.83	4.00	3.00	4.70	—	—	2.65	—	—	2.65	—	—	4.40	4.00	3.00	4.33
12. Orissa	1.00	0.90	1.82	1.90	1.71	1.76	0.73	0.63	1.84	1.83	1.80	1.72	0.87	0.86	1.82	1.89	1.72	1.76
13. Punjab	—	2.63	5.08	5.14	4.33	4.63	—	3.00	7.50	4.87	—	5.80	—	2.64	5.21	5.02	4.33	4.73
14. Rajasthan	—	1.66	2.78	2.20	4.20	2.66	—	1.75	2.47	2.24	1.61	2.34	—	1.64	2.67	2.22	2.25	2.54
15. Tamil Nadu	1.07	0.82	2.07	2.29	1.97	2.07	—	1.66	3.05	2.90	3.05	2.97	1.07	1.00	2.22	2.35	2.35	2.20
16. Tripura	1.00	2.58	3.14	2.84	2.65	3.06	—	6.23	2.94	3.92	—	3.53	1.00	4.69	3.10	3.29	2.65	3.18
17. Uttar Pradesh	1.23	1.30	2.02	2.15	1.82	2.01	—	1.23	2.45	2.78	2.14	2.42	1.23	1.29	2.09	2.22	1.89	2.07

(b) SMALL CULTIVATOR HOUSEHOLDS*—FEMALES

1. Andhra Pradesh	. 0.57	1.29	1.51	1.51	0.99	1.49	—	1.48	1.44	1.14	1.75	1.39	0.50	1.33	1.50	1.51	1.08	1.48
2. Assam	. —	2.14	2.62	2.30	—	2.59	—	2.50	2.56	2.50	—	2.55	—	2.26	2.61	2.34	..	2.58
3. Bihar	. 1.81	1.81	1.81	1.83	1.96	1.82	—	1.14	1.72	1.63	1.50	1.69	1.81	1.80	1.80	1.82	1.95	1.81
4. Delhi	. —	2.00	2.86	3.00	2.00	2.70	—	—	2.88	—	—	2.68	—	2.00	2.86	3.00	2.00	2.73
5. Gujarat	. —	1.21	1.48	1.20	—	1.40	—	1.29	2.62	1.12	—	1.47	—	1.22	1.49	1.19	—	1.41
6. Haryana	. —	—	3.37	2.73	—	3.11	—	—	3.00	—	—	3.00	—	—	3.30	2.73	—	3.10
7. Kerala	. —	0.75	2.21	1.81	1.96	2.14	—	1.19	2.19	2.42	1.75	2.13	—	1.08	2.20	1.92	1.84	2.14
8. Maharashtra	. 0.80	1.16	1.25	1.21	0.83	1.22	—	0.89	1.15	1.40	0.75	1.17	0.80	1.08	1.24	1.23	0.83	1.22
9. Mysore	. —	0.94	1.29	1.31	0.79	1.26	—	1.36	1.26	2.00	1.00	1.32	—	0.99	1.29	1.34	0.85	1.27
10. Madhya Pradesh	. 1.00	1.02	1.36	1.36	1.32	1.34	1.05	0.90	1.28	1.27	0.50	1.24	1.03	1.00	1.35	1.35	1.30	1.33
11. Manipur	. —	—	2.71	1.94	—	2.52	—	—	—	3.57	—	3.57	—	—	2.71	2.31	—	2.59
12. Orissa	. 1.00	0.92	1.18	1.32	1.25	1.20	0.55	0.72	1.20	1.35	0.88	1.13	0.62	0.84	1.19	1.33	1.14	1.18
13. Punjab	. —	—	0.58	3.57	—	1.26	—	—	—	—	—	—	—	—	0.58	3.57	—	1.26
14. Rajasthan	. —	1.14	1.75	1.62	4.00	1.74	—	1.10	1.57	—	—	1.46	—	1.12	1.71	1.62	4.00	1.68
15. Tamil Nadu	. —	0.99	1.29	1.34	0.85	1.27	—	1.00	1.43	1.32	1.59	1.40	—	0.83	1.97	1.04	—	1.35
16. Tripura	. —	—	2.07	1.16	1.75	1.98	—	1.00	2.80	0.57	1.63	2.48	—	1.00	2.23	1.00	1.73	2.10
17. Uttar Pradesh	. —	1.09	1.82	1.70	1.04	1.69	—	2.00	1.67	1.20	1.50	1.68	—	1.30	1.81	1.64	1.21	1.69

Source : The National Sample survey : Twenty-Fifth Round : July 1970—June 1971.

*Includes only the lowest ten percent of Small Cultivator Households.

(—) denotes data not available.

APPENDIX XXIII—*contd.*

(c) SMALL CULTIVATOR HOUSEHOLDS*—PERSONS

State/Union Territory	Average earnings (in Rupees) per man-day																	
	For those who worked in other farms for salary or wages						For those who worked in non-farm occupations as non-self employed						For all non-self employed					
	Age Group in years						Age Group in years						Age Group in years					
	0-9	10-14	15-44	45-59	60 above	All ages	0-9	10-14	15-44	45-59	60 & above	All ages	0-9	10-14	15-44	45-59	60 & above	All ages
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Andhra Pradesh	0.60	1.33	1.74	1.87	1.46	1.72	0.85	1.54	1.73	1.62	2.36	1.71	0.62	1.37	1.74	1.84	1.53	1.72
2. Assam	0.86	1.98	3.52	3.43	3.58	3.47	—	2.94	3.38	3.39	4.50	3.37	0.86	2.28	3.50	3.43	3.68	3.45
3. Bihar	1.72	1.76	2.11	2.12	2.08	2.09	—	1.62	2.53	2.12	1.87	2.45	1.72	1.76	2.16	2.12	2.05	2.13
4. Delhi	—	2.00	2.95	3.00	2.00	2.81	—	—	3.59	2.87	4.00	3.45	—	2.00	3.26	2.90	3.00	3.13
5. Gujarat	0.79	0.85	1.66	1.73	1.58	1.60	—	1.26	1.81	1.73	1.52	1.75	—	1.22	1.70	1.89	1.75	1.63
6. Haryana	—	2.28	3.83	3.81	—	3.59	—	—	4.65	4.00	—	4.49	—	2.28	4.18	3.89	—	3.93
7. Kerala	—	1.53	2.89	3.16	3.44	2.95	—	1.46	3.40	4.05	3.02	3.39	—	1.48	3.06	3.37	3.27	3.09
8. Maharashtra	0.80	1.07	1.80	1.84	1.43	1.76	—	0.95	2.24	1.98	2.12	2.09	0.80	1.05	1.84	1.86	1.47	1.79
9. Mysore	—	1.04	1.73	1.75	1.70	1.69	—	1.22	2.00	2.39	1.79	1.95	—	1.06	1.74	1.78	1.71	1.71
10. Madhya Pradesh	1.05	1.00	1.62	1.53	1.35	1.35	1.05	1.01	1.80	1.58	2.32	1.65	1.05	1.00	1.63	1.51	1.43	1.56
11. Manipur	—	—	4.17	2.70	3.00	3.93	—	—	2.65	3.57	—	2.79	—	—	3.95	2.33	3.00	3.77
12. Orissa	1.00	0.90	1.68	1.75	1.61	1.63	0.66	0.68	1.58	1.64	1.38	1.47	0.79	0.85	1.66	1.73	1.58	1.60
13. Punjab	—	2.63	4.60	4.62	4.33	4.29	—	3.00	7.50	4.87	—	5.80	—	2.64	4.74	4.71	4.33	4.41
14. Rajasthan	—	1.52	2.48	1.83	4.12	2.36	—	1.42	2.32	2.24	1.61	2.20	—	1.49	2.43	1.96	2.50	2.30
15. Tamil Nadu	1.07	0.89	1.79	2.00	1.83	1.80	—	1.22	2.97	2.59	3.06	2.77	1.07	0.98	1.90	2.05	2.14	1.90
16. Tripura	1.00	2.58	2.89	2.60	2.24	2.82	—	5.69	2.90	3.65	1.63	3.31	1.00	4.46	2.89	3.02	2.20	2.93
17. Uttar Pradesh	1.23	1.21	1.99	2.07	1.73	1.95	—	1.61	2.39	2.55	1.99	2.32	1.23	1.29	2.04	2.13	1.79	2.01

(a) NON-CULTIVATING WAGE EARNER HOUSEHOLDS— MALES

1. Andhra Pradesh	0.65	1.34	2.22	2.09	1.64	2.10	0.85	1.57	1.86	1.56	1.54	1.79	0.68	1.39	2.14	2.00	1.63	2.04
2. Assam	—	2.20	3.78	4.19	4.00	3.77	—	3.50	4.41	4.76	—	4.42	—	2.38	3.89	4.28	4.00	3.89
3. Bihar	0.83	1.77	2.29	2.29	2.18	2.25	—	1.73	2.66	2.95	2.00	2.62	0.83	1.76	2.33	2.36	2.16	2.30
4. Delhi	—	—	3.15	—	..	3.15	—	—	3.76	2.87	4.00	3.53	—	—	3.57	2.87	4.00	3.45
5. Gujarat	—	0.90	1.93	2.04	2.05	1.86	1.00	1.77	2.45	2.17	1.98	2.33	—	1.62	2.27	3.20	1.00	2.23
6. Haryana	—	3.00	4.46	4.09	3.93	4.34	—	3.57	4.14	3.50	—	4.05	—	3.38	4.35	4.02	3.92	4.26
7. Kerala	—	—	4.25	3.96	3.13	4.10	—	0.56	4.35	3.75	1.25	4.12	—	0.56	4.30	3.91	2.66	4.11
8. Maharashtra	1.75	1.15	2.28	2.19	2.10	2.20	—	1.14	2.60	2.01	2.69	2.38	1.75	1.15	2.30	2.17	2.14	2.22
9. Mysore	—	1.15	1.91	2.10	1.76	1.89	—	0.81	3.25	3.01	3.49	2.92	—	1.07	2.07	2.21	2.29	2.03
10. Madhya Pradesh	1.21	1.18	1.68	1.67	1.54	1.64	—	1.36	2.41	2.31	1.44	2.30	1.21	1.20	1.76	1.73	1.53	1.71
11. Manipur	—	—	4.00	6.00	..	5.47	—	—	—	—	—	—	—	—	4.00	6.00	—	5.47
12. Orissa	—	0.81	1.90	1.99	2.03	1.83	—	1.34	2.08	2.27	2.17	2.05	—	0.90	1.93	2.04	2.05	1.86
13. Punjab	—	2.92	4.97	5.20	5.20	4.91	—	2.47	5.84	4.38	2.88	5.13	—	2.80	5.14	5.01	4.74	4.95
14. Rajasthan	..	0.75	3.03	2.56	2.91	2.97	—	2.00	2.69	3.07	1.75	2.66	—	1.58	2.95	2.77	2.68	2.88
15. Tamil Nadu	1.00	1.33	2.42	2.35	2.39	2.38	—	0.80	3.69	3.53	3.64	3.52	1.00	1.12	2.78	2.66	2.59	2.69
16. Tripura	—	—	2.35	2.38	2.54	2.36	—	3.00	1.61	—	2.75	1.70	—	3.00	2.09	2.38	2.61	2.13
17. Uttar Pradesh	—	1.51	2.47	2.43	2.42	2.42	—	1.56	2.85	3.01	2.52	2.80	—	1.52	2.55	2.52	2.44	2.50

Source : The National Sample Survey— 25th Round : July, 1970—June, 1971.

*Includes only the lowest ten per cent of Small Cultivator Households.

(—) denotes information not available.

APPENDIX XXIII—contd.

(a) NON-CULTIVATING WAGE EARNER HOUSEHOLDS— FEMALEs

State/Union Territory	Average earnings (in Rupees) per man-day																	
	For those who worked in other farms for salary or wages						For those who worked in non-farm occupa- tion as non-self employed						For all non-self employed					
	Age Group in years						Age Group in years						Age Group in years					
	0-9	10-14	15-44	45-59	60 & above	All ages	0-9	10-14	15-44	45-59	60 & above	All ages	0-9	10-14	15-44	45-59	60 & above	All ages
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Andhra Pradesh	0.57	1.29	1.51	1.57	0.99	1.49	—	1.48	1.44	1.14	1.53	1.39	0.57	1.33	1.50	1.51	1.06	1.48
2. Assam	—	1.00	3.01	2.39	—	2.92	—	2.50	2.76	2.00	—	2.68	—	1.94	2.96	2.32	—	2.87
3. Bihar	—	1.61	1.92	1.78	2.05	1.90	—	1.14	1.80	1.67	1.98	1.77	—	1.57	1.91	1.76	2.01	1.89
4. Delhi	—	2.00	2.86	3.00	2.00	2.70	—	—	2.86	—	—	2.86	—	2.00	2.86	3.00	2.00	2.73
5. Gujarat	—	1.48	1.69	1.63	0.95	1.65	—	2.42	2.83	2.14	1.33	1.98	—	1.73	1.71	1.69	1.00	1.70
6. Haryana	—	—	2.69	—	3.00	2.71	—	—	2.81	—	—	2.81	—	—	2.74	—	3.00	2.75
7. Kerala	—	—	2.43	1.85	1.65	2.24	—	—	2.24	1.29	—	2.19	—	—	2.38	1.82	1.65	2.23
8. Maharashtra	1.00	0.94	1.22	1.11	2.75	1.31	1.25	0.96	1.24	1.42	0.50	1.24	1.05	0.94	1.22	1.12	2.73	1.30
9. Mysore	1.00	1.17	1.48	1.70	1.00	1.49	—	1.00	1.80	1.76	1.44	1.73	1.00	1.16	1.50	1.70	1.11	1.50
10. Madhya Pradesh	0.98	1.09	1.34	1.30	1.43	1.32	—	0.96	1.44	1.27	1.50	1.39	0.98	1.08	1.35	1.29	1.43	1.32
11. Manipur	—	—	—	—	—	—	—	—	4.00	—	—	4.00	—	—	4.00	—	—	4.00
12. Orissa	—	0.66	1.35	1.43	1.26	1.34	—	0.80	1.32	1.41	0.90	1.25	—	0.72	1.35	1.42	1.14	1.32
13. Punjab	—	3.72	3.09	4.69	1.72	3.48	—	2.86	2.43	1.47	—	2.21	—	3.37	2.93	3.65	1.72	3.13
14. Rajasthan	—	1.36	2.01	1.76	1.00	1.88	—	—	2.15	0.92	—	1.32	—	1.36	2.03	1.42	1.00	1.75
15. Tamil Nadu	0.50	0.97	1.52	1.52	1.16	1.50	—	2.00	2.45	3.07	2.71	2.02	0.50	1.04	1.52	1.79	1.62	1.55
16. Tripura	—	—	2.03	1.60	1.81	1.96	—	—	0.71	1.07	—	0.89	—	—	1.82	1.34	1.81	1.71
17. Uttar Pradesh	1.16	1.30	1.66	1.43	1.61	1.59	—	1.50	1.15	1.32	1.28	1.23	1.16	1.35	1.59	1.41	1.57	1.53

NON-CULTIVATING WAGE EARNER HOUSEHOLDS (PERSONS)

1. Andhra Pradesh	0.60	1.32	1.87	1.87	1.46	1.81	0.85	1.54	1.73	1.40	1.54	1.66	0.62	1.37	1.84	1.80	1.47	1.79
2. Assam	—	2.17	3.65	4.03	4.00	3.65	—	3.23	4.13	4.49	—	4.14	—	2.34	3.74	4.10	4.00	3.74
3. Bihar	0.83	1.76	2.15	2.13	2.13	2.13	—	1.70	2.45	2.45	1.99	2.39	0.83	1.75	2.18	2.17	2.11	2.16
4. Delhi	—	2.00	2.95	3.00	2.00	2.81	—	—	3.59	2.87	4.00	3.45	—	2.00	3.26	2.90	3.00	3.1
5. Gujarat	1.00	1.63	2.17	1.94	1.71	2.07	—	1.93	2.11	2.71	1.18	2.14	—	1.72	2.16	2.02	1.00	2.08
6. Haryana	—	3.00	4.25	4.09	3.79	4.18	—	3.57	3.95	3.50	—	3.90	—	3.38	4.15	4.02	3.79	4.10
7. Kerala	—	—	3.38	0.28	2.45	2.64	—	0.56	3.85	3.31	1.25	3.69	—	0.56	3.58	3.73	2.27	3.03
8. Maharashtra	1.50	1.06	1.83	1.79	2.50	1.83	1.25	1.24	2.12	1.84	2.31	1.98	1.47	1.06	1.86	1.80	2.49	1.84
9. Mysore	1.00	1.16	1.71	1.95	1.55	1.71	—	0.82	2.84	2.65	3.04	2.62	1.00	1.10	1.82	2.02	1.99	1.81
10. Madhya Pradesh	1.10	1.15	1.54	1.52	1.50	1.51	—	1.22	2.08	1.94	1.45	1.99	1.10	1.15	1.60	1.55	1.49	1.56
11. Manipur	—	—	4.00	6.00	—	5.47	—	—	4.00	—	—	4.00	—	—	4.00	6.00	—	5.08
12. Orissa	—	0.79	1.73	1.82	1.80	1.68	—	1.15	1.80	2.07	1.48	1.77	—	0.87	1.74	1.86	1.73	1.70
13. Punjab	—	3.06	4.76	5.11	5.02	4.74	—	2.58	5.38	3.63	2.88	4.65	—	2.92	4.89	4.74	4.61	4.72
14. Rajasthan	—	1.23	2.75	1.98	2.80	2.59	—	2.00	2.61	1.51	1.75	2.25	—	1.46	2.71	1.79	2.59	2.50
15. Tamil Nadu	0.85	1.24	2.08	2.10	2.05	2.06	—	0.85	3.46	3.44	3.21	3.33	0.85	1.10	2.37	2.43	2.28	2.34
16. Tripura	—	—	2.29	2.16	2.25	2.28	—	3.00	1.55	1.07	2.75	1.60	—	3.00	2.05	1.93	2.37	2.03
17. Uttar Pradesh	1.16	1.48	2.32	2.26	2.24	2.27	—	1.55	2.68	2.59	2.35	2.60	1.16	1.49	2.40	2.32	2.26	2.34

Source : The National Sample Survey— 25th Round : July 1970— June, 1971.

(—) denotes information not available.

APPENDIX XXIV

(Para 4.40)

Number of persons on the live registers of the Employment Exchanges classified by educational standard and skill (1961—1972)*

State/Union Territory	Year	Total applicants on Live Register	Unskilled manual workers@	Others including educated@	Educated				Total	Skilled (Illiterate and literate below matric)@
					Matric	Higher Secondary	Graduate	Post-Graduate**		
1	2	3	4	5	6	7	8	9	10	11
1. Andhra Pradesh	1961	1,06,796	—	—	24,968	4,456	3,690		33,114	—
	1962	1,18,278	—	—	27,013	5,145	3,526		35,684	—
	1963	1,33,438	—	—	30,202	5,213	3,460		38,875	—
	1964	1,25,941	—	—	31,495	6,571	3,988	567	42,621	—
	1965	1,38,597	—	—	29,432	6,337	2,694	594	39,057	—
	1966	1,43,638	—	—	35,825	11,489	2,284	576	50,174	—
	1967	1,55,176	—	—	36,994	16,900	4,920	420	59,234	—
	1968	1,74,912	—	—	47,392	19,864	8,482	1,303	77,041	—
	1969	2,16,254	—	—	61,083	24,459	18,356	1,312	1,00,210	—
	1970	2,78,679	50,952	2,27,727	1,04,812	29,998	13,931	1,631	1,50,372	77,355
	1971	3,36,151	94,531	2,41,620	1,09,842	35,482	21,500	2,483	1,69,307	72,313
	1972	3,67,382	1,00,407		1,24,473	33,499	28,822	2,207	1,89,001	1,78,381
2. Assam	1961	31,473	—	—	6,481	1,139	445		8,065	—
	1962	42,963	—	—	7,428	1,248	592		9,268	—
	1963	48,088	—	—	8,613	1,627	636		10,876	—
	1964	50,568	—	—	6,900	1,834	644	45	9,423	—
	1965	51,820	—	—	8,980	2,519	1,198	102	12,799	—
	1966	47,435	—	—	9,544	2,792	1,427	115	13,878	—
	1967	48,165	—	—	10,028	2,755	1,463	42	14,288	—
	1968	53,667	—	—	11,266	3,999	2,105	160	17,530	—
	1969	55,358	—	—	11,946	3,829	2,535	96	18,406	—
	1970	64,923	15,567	49,356	13,816	5,202	3,634	259	22,911	26,445
	1971	78,982	20,928	58,054	17,078	7,466	4,929	272	29,745	28,309
	1972	79,668	22,552		16,742	7,876	8,091	265	32,974	46,694

3. Bihar	1961	1,31,937	—	—	21,998	4,120	3,072		29,190	—
	1962	1,80,037	—	—	29,991	5,256	5,187		40,434	—
	1963	1,78,900	—	—	32,118	6,597	6,955		45,670	—
	1964	1,62,471	—	—	30,028	6,831	6,725	586	44,170	—
	1965	1,82,661	—	—	27,780	7,460	8,521	1,258	45,119	—
	1966	2,16,088	—	—	42,453	9,305	11,805	1,411	64,974	—
	1967	2,40,256	—	—	52,216	17,368	14,075	1,349	85,008	—
	1968	2,67,010	—	—	57,877	24,032	22,282	1,733	1,05,924	—
	1969	2,87,742	—	—	71,963	27,704	22,511	2,735	1,24,913	—
	1970	3,18,706	50,539	2,61,167	75,893	25,435	25,109	2,667	1,29,104	1,32,063
	1971	4,19,668	1,20,102	2,99,476	94,585	26,077	32,696	2,569	1,65,927	1,33,549
1972	7,12,964	1,52,153		1,82,144	72,633	63,536	3,963	3,22,276	3,90,688	
4. Chandigarh*	1966	7,038	—	—	988	210	601	85	1,884	—
	1967	10,559	—	—	1,499	307	208	477	2,491	—
	1968	10,934	—	—	2,640	810	552	—	4,002	—
	1969	10,637	—	—	3,573	503	641	—	4,717	—
	1970	12,921	5,220	77,01	2,754	538	784	—	4,076	3,625
	1971	19,761	8,914	10,847	3,315	1,164	1,416	—	5,895	4,952
	1972	21,152	8,848		9,578	2,970	1,687	—	14,235	6,917
5. Delhi	1961	63,907	—	—	24,834	2,827	5,389		33,050	—
	1962	84,752	—	—	29,880	3,521	7,715		41,116	—
	1963	86,872	—	—	32,905	3,552	7,064		43,521	—
	1964	1,06,206	—	—	46,169	11,377	5,633	2,262	65,441	—
	1965	76,993	—	—	19,412	12,695	5,191	2,519	39,817	—
	1966	75,596	—	—	18,214	16,357	5,453	1,993	42,017	—
	1967	74,565	—	—	21,040	13,719	7,105	2,317	44,181	—
	1968	1,12,894	—	—	31,155	21,011	14,190	196	66,552	—
	1969	1,39,456	—	—	31,906	31,417	16,721	5,018	85,062	—
	1970	1,32,721	30,270	1,02,451	31,733	27,022	17,557	6,112	82,424	20,027
	1971	1,39,220	28,112	1,11,108	28,511	22,319	17,714	8,038	76,582	34,526
1972	1,79,194	27,924		28,591	53,258	20,700	9,542	1,12,091	67,103	

*Data for years prior to 1966 included in the State of Punjab.

APPENDIX XXIV—contd.

State/Union Territory	Year	Total applicants on Live Register	Unskilled manual workers @	Others including educated	Educated †				Total	Skilled (Illiterate and literate below matric) @
					@ Matric	Higher Secondary	Graduate	Post-Graduate**		
1	2	3	4	5	6	7	8	9	10	11
6. Goa	1961	—	—	—	—	—	—	—	—	—
	1962	—	—	—	—	—	—	—	—	—
	1963	—	—	—	—	—	—	—	—	—
	1964	3,772	—	—	—	—	—	—	—	—
	1965	4,545	—	—	710	34	90	..	834	—
	1966	4,478	—	—	942	67	114	118	1,241	—
	1967	5,127	—	—	1,081	79	335	15	1,510	—
	1968	7,222	—	—	2,272	178	227	3	2,680	—
	1969	5,060	—	—	1,677	179	252	23	2,131	—
	1970	7,258	2,298	4,960	971	345	394	22	1,732	3,228
	1971	10,557	2,108	8,449	5,126	559	584	30	6,299	2,150
	1972	13,903	2,685	—	5,611	1,044	1,034	46	7,735	6,168
7. Gujarat	1961	63,434	—	—	18,767	1,517	1,863	—	22,147	—
	1962	71,866	—	—	20,229	1,689	2,039	—	23,957	—
	1963	74,860	—	—	21,949	1,436	2,223	—	25,608	—
	1964	71,079	—	—	20,539	1,704	2,225	59	24,527	—
	1965	81,449	—	—	23,788	2,050	3,025	282	29,145	—
	1966	86,643	—	—	27,484	1,686	3,887	205	33,262	—
	1967	99,170	—	—	36,584	2,563	6,452	240	45,839	—
	1968	1,21,132	—	—	44,924	3,714	8,273	364	57,275	—
	1969	1,28,658	—	—	51,349	4,130	9,535	117	65,131	—
	1970	1,54,664	36,005	1,18,659	55,735	4,777	11,522	149	72,183	46,476
	1971	1,70,964	39,396	1,31,568	62,718	5,967	13,959	111	82,755	48,813
	1972	2,00,675	42,659	—	74,625	8,224	18,327	162	1,01,338	99,337

8. Haryana**	1966	36,487	—	—	9,389	1,743	442	453	12,027	—
	1967	39,281	—	—	13,378	2,728	1,353	754	18,213	—
	1968	47,112	—	—	17,398	4,177	2,232	1,373	25,180	—
	1969	59,040	—	—	21,679	5,615	3,150	1,081	31,525	—
	1970	82,780	27,174	55,606	29,159	8,236	4,845	1,086	43,326	12,280
	1971	99,315	37,339	61,976	28,704	10,034	6,684	1,367	46,789	15,187
	1972	1,23,276	49,874	—	34,167	10,120	8,835	1,594	54,716	68,560
9. Himachal Pradesh	1961	5,743	—	—	1,210	57	56	—	1,323	—
	1962	6,787	—	—	1,391	71	55	—	1,517	—
	1963	6,580	—	—	1,462	85	69	—	1,606	—
	1964	7,255	—	—	1,388	89	38	6	1,521	—
	1965	8,342	—	—	1,327	89	35	5	1,456	—
	1966	20,758	—	—	4,393	812	257	133	5,595	—
	1967	24,052	—	—	5,688	996	331	210	7,225	—
	1968	42,771	—	—	9,448	1,666	734	185	12,033	—
	1969	50,904	—	—	13,418	2,397	1,443	393	17,651	—
	1970	44,334	17,658	26,676	11,536	3,022	1,420	338	16,316	10,360
	1971	45,273	16,838	28,435	9,732	1,778	1,669	211	13,390	15,045
	1972	54,204	22,247	—	14,110	4,027	2,462	411	21,010	33,194
10. Jammu & Kashmir	1961	4,917	—	—	1,234	127	109	—	1,470	—
	1962	5,816	—	—	1,251	149	161	—	1,561	—
	1963	6,269	—	—	787	127	128	—	1,042	—
	1964	4,189	—	—	1,057	27	78	3	1,165	—
	1965	6,794	—	—	546	149	86	1	782	—
	1966	6,949	—	—	749	188	131	29	1,097	—
	1967	5,903	—	—	917	1,026	178	19	2,140	—
	1968	6,586	—	—	1,218	320	223	59	1,820	—
	1969	8,022	—	—	1,477	526	360	59	2,422	—
	1970	14,375	6,775	7,600	2,481	1,017	967	127	4,622	3,008
	1971	25,394	10,495	14,899	4,271	2,836	2,126	368	9,601	5,298
1972	38,809	15,930	—	6,009	3,797	3,546	566	13,918	24,891	

£Data for 1961 to 1963 are not available.

**Data for years prior to 1966 included in the state of Punjab.

APPENDIX XXIV—contd.

State/Union Territory	Year	Total applicants on Live Register	Unskilled manual workers @	Others including educated @	Educated				Total	Skilled (Illiterate and literate below matric) ^a
					Matric	Higher Secondary	Graduate	Post-Graduate **		
1	2	3	4	5	6	7	8	9	10	11
11. Kerala	1961	1,40,809	—	—	63,282	1,365	3,324	—	67,971	—
	1962	2,01,810	—	—	85,628	3,029	3,749	—	92,406	—
	1963	1,28,544	—	—	63,945	1,863	2,285	—	68,093	—
	1964	1,40,523	—	—	65,593	2,458	2,445	246	70,742	—
	1965	1,40,592	—	—	68,029	1,710	2,691	437	72,867	—
	1966	1,57,182	—	—	79,261	2,923	3,595	492	86,271	—
	1967	1,79,680	—	—	90,816	3,558	5,166	695	100,235	—
	1968	1,99,006	—	—	1,02,488	3,895	7,695	893	1,14,971	—
	1969	2,41,331	—	—	1,24,471	6,275	10,948	1,378	1,43,072	—
	1970	2,93,754	32,803	2,60,951	1,51,177	8,118	17,704	1,994	1,78,993	81,958
1971	3,57,381	39,193	3,18,188	1,66,899	10,015	22,013	2,253	2,01,180	1,17,008	
1972	4,47,016	50,098	—	—	2,22,912	13,633	24,971	2,114	2,63,630	1,83,386
12. Madhya Pradesh	1961	75,279	—	—	13,905	2,117	1,406	—	17,428	—
	1962	1,22,209	—	—	19,810	3,894	2,716	—	28,420	—
	1963	1,46,860	—	—	18,784	13,287	3,349	—	35,420	—
	1964	1,45,685	—	—	15,819	24,373	3,224	590	44,006	—
	1965	1,61,251	—	—	16,499	36,732	4,055	1,234	58,520	—
	1966	1,77,147	—	—	10,626	50,228	4,888	1,200	66,942	—
	1967	1,80,319	—	—	16,003	59,445	6,748	886	83,077	—
	1968	1,81,154	—	—	1,5587	60,298	9,249	1,091	86,228	—
	1969	1,98,492	—	—	17,510	69,388	10,793	1,453	99,144	—
	1970	2,47,503	92,697	1,54,806	20,197	66,169	14,073	2,503	1,02,942	51,864
	1971	3,15,592	1,25,349	1,90,243	22,756	92,535	18,637	3,278	1,37,206	53,037
	1972	4,04,380	1,62,160	—	—	31,749	1,31,179	27,701	4,168	1,94,797	2,09,583

13. Tamil Nadu	1961	1,51,742	—	—	35,978	2,226	2,987	—	41,191	—
	1962	1,62,936	—	—	36,507	2,663	1,913	—	41,083	—
	1963	1,93,401	—	—	38,514	2,364	1,968	—	42,836	—
	1964	1,81,621	—	—	43,153	2,217	1,796	124	47,290	—
	1965	2,08,534	—	—	51,699	1,884	2,197	335	56,115	—
	1966	2,12,876	—	—	56,444	3,989	3,795	281	64,509	—
	1967	2,32,713	—	—	70,937	4,077	5,017	1,125	81,156	—
	1968	2,76,407	—	—	95,020	9,822	8,383	595	1,13,820	—
	1969	2,14,931	—	—	95,313	10,757	11,286	1,363	1,18,719	—
	1970	4,00,276	91,314	3,08,962	1,30,614	11,821	16,776	1,295	1,60,506	1,48,456
	1971	4,59,654	1,03,506	3,56,148	1,52,162	13,999	23,530	1,904	1,91,595	1,64,553
1972	4,76,234	97,002	—	1,60,892	31,493	29,200	2,990	2,14,575	2,61,659	
14. Maharashtra	1961	1,71,904	—	—	48,762	2,324	4,622	—	55,708	—
	1962	2,15,774	—	—	51,792	2,822	5,194	—	59,808	—
	1963	2,45,299	—	—	57,070	3,789	4,979	—	65,838	—
	1964	2,55,257	—	—	40,696	3,684	4,432	530	49,342	—
	1965	2,66,990	—	—	63,580	3,656	5,569	514	73,319	—
	1966	2,78,273	—	—	76,367	6,319	6,174	589	89,449	—
	1967	2,86,834	—	—	91,659	6,880	8,153	763	1,07,455	—
	1968	2,94,717	—	—	87,688	12,880	9,271	794	1,09,753	—
	1969	3,02,030	—	—	1,05,949	7,718	11,049	936	1,25,652	—
	1970	3,28,017	86,402	2,41,615	1,15,265	8,731	13,574	1,034	1,38,604	1,03,011
	1971	4,30,016	1,21,751	3,08,265	1,51,922	26,868	19,274	1,250	1,99,314	1,08,951
1972	5,98,178	1,18,881	—	2,38,821	18,611	37,163	2,382	2,96,977	3,01,201	
15. Manipur	1961	10,131	—	—	1,650	213	104	—	1,967	—
	1962	14,952	—	—	1,893	356	90	—	2,339	—
	1963	5,243	—	—	975	349	137	—	1,461	—
	1964	9,722	—	—	1,225	579	186	13	2,003	—
	1965	5,441	—	—	1,056	432	303	9	1,800	—
	1966	6,911	—	—	1,407	703	312	34	2,458	—
	1967	7,363	—	—	1,510	757	442	34	2,743	—
	1968	12,727	—	—	1,636	814	371	16	2,837	—
	1969	22,914	—	—	1,173	200	282	1	1,656	—
	1970	29,117	—	29,117	2,039	372	421	32	2,864	26,253
	1971	37,665	3,163	34,502	9,164	4,384	4,124	244	17,916	16,586
1972	51,711	5,983	37,563	2,492	894	534	48	3,968	47,743	

££Provisional.

APPENDIX XXIV—contd.

State/Union Territory	Year	Total applicants on Live Register @	Unskilled manual workers @	Others including educated	Educated					Skilled (Illiterate and literate below matric) @
					Matric	Higher Secondary **	Graduate	Post Graduate	Total	
1	2	3	4	5	6	7	8	9	10	11
16. Mysore	1961	83,117	—	—	30,485	2,980	3,978	—	37,443	—
	1962	1,07,223	—	—	38,275	3,182	4,190	—	45,647	—
	1963	1,09,704	—	—	40,985	2,248	3,361	—	46,594	—
	1964	1,20,300	—	—	43,553	3,472	2,933	560	50,518	—
	1965	1,34,938	—	—	46,693	2,872	3,204	663	53,432	—
	1966	1,47,962	—	—	52,834	4,830	4,186	902	62,752	—
	1967	1,74,537	—	—	57,214	12,910	5,687	716	36,527	—
	1968	1,96,686	—	—	60,290	25,623	7,552	777	94,242	—
	1969	2,10,799	—	—	65,267	40,918	9,757	1,000	1,16,942	—
	1970	2,40,731	65,827	1,74,904	80,710	26,332	13,275	1,056	1,21,373	53,531
	1971	2,70,053	69,169	2,00,884	1,03,765	14,827	19,775	1,498	1,39,865	61,019
1972	2,95,246	73,316	—	1,17,993	21,447	27,319	2,115	1,68,874	1,26,372	
17. Orissa	1961	68,820	—	—	7,482	502	680	—	8,664	—
	1962	76,981	—	—	8,151	1,357	831	—	10,339	—
	1963	82,640	—	—	10,600	975	1,253	—	12,828	—
	1964	78,053	—	—	8,309	961	811	90	10,171	—
	1965	87,548	—	—	13,215	892	1,311	158	15,576	—
	1966	86,675	—	—	11,111	851	1,293	147	13,402	—
	1967	94,250	—	—	16,830	1,693	1,928	242	20,693	—
	1968	91,090	—	—	20,200	2,501	3,678	556	26,935	—
	1969	1,22,560	—	—	24,787	2,557	3,897	587	31,828	—
	1970	1,50,063	65,547	84,516	32,950	3,694	6,670	706	44,020	40,496
	1971	1,85,132	73,589	1,11,543	42,140	5,405	8,435	815	56,795	54,748
	1972	2,42,589	1,01,323	—	51,080	7,187	11,460	983	70,710	1,71,879

18 Pondicherry	1961	1,968	—	—	252	30	16	—	298	—
	1962	1,679	—	—	196	20	13	—	229	—
	1963	1,855	—	—	231	26	20	—	277	—
	1964	3,117	—	—	452	40	19	4	515	—
	1965	4,393	—	—	519	36	43	4	602	—
	1966	6,904	—	—	901	70	56	7	1,034	—
	1967	7,326	—	—	1,365	83	122	15	1,585	—
	1968	8,561	—	—	1,998	168	166	18	2,350	—
	1969	7,672	—	—	1,882	184	363	48	2,477	—
	1970	8,143	3,199	4,944	2,702	303	471	94	3,570	1,374
	1971	9,403	2,784	6,619	1,292	1,544	777	105	3,718	2,901
	1972	13,518	3,073	—	1,735	1,339	861	145	4,081	9,437
19. Punjab	1961	67,803	—	—	24,171	2,648	1,602	—	28,422	—
	1962	28,747	—	—	26,858	3,675	2,152	—	32,685	—
	1963	83,071	—	—	25,724	3,472	2,340	—	31,536	—
	1964	88,247	—	—	24,697	4,025	1,758	457	30,937	—
	1965	96,240	—	—	22,750	5,291	1,766	952	30,759	—
	1966	50,384	—	—	14,352	3,235	1,561	986	20,134	—
	1967	58,391	—	—	16,799	5,220	2,408	1,014	25,441	—
	1968	71,839	—	—	19,621	6,018	4,726	2,303	32,668	—
	1969	83,811	—	—	26,939	8,526	6,892	1,117	43,494	—
	1970	93,748	21,536	72,212	36,358	10,043	6,991	1,968	55,354	16,856
	1971	1,18,869	45,048	73,821	33,933	15,313	10,579	1,407	61,232	12,589
	1972	1,58,903	62,473	—	33,690	13,955	15,167	2,510	65,322	93,589
20. Rajasthan	1961	44,522	—	—	16,726	2,092	1,556	—	20,374	—
	1962	48,929	—	—	17,854	2,835	1,745	—	22,434	—
	1963	52,956	—	—	20,083	3,677	1,722	—	25,482	—
	1964	58,224	—	—	18,974	7,623	1,300	274	28,171	—
	1965	61,406	—	—	20,837	7,954	1,438	364	30,593	—
	1966	65,285	—	—	18,927	10,757	1,762	283	31,729	—
	1967	73,052	—	—	20,400	12,492	2,605	528	36,025	—
	1968	88,706	—	—	26,710	15,264	4,779	1,796	48,549	—
	1969	82,677	—	—	22,718	15,750	4,794	1,289	44,551	—
	1970	1,28,097	56,531	71,566	24,841	21,262	6,911	1,463	54,477	17,089
	1971	1,39,825	54,471	85,354	28,704	23,789	9,845	2,334	64,692	20,662
	1972	1,71,326	61,504	—	32,577	31,307	15,086	3,644	82,614	88,712

APPENDIX XXIV—contd.

State/Union Territory	Year	Total applicants on Live Register	Unskilled manual workers @	Others including educated @	EDUCATED				Total	Skilled illiterate and literate (below matric). @
					Matric	Higher Secondary	Graduate	Post-Graduate **		
1	2	3	4	5	6	7	8	9	10	11
21. Tripura	1961	5,377	—	—	720	90	59		869	—
	1962	5,599	—	—	991	105	72		1,168	—
	1963	5,633	—	—	1,483	165	158		1,806	—
	1964	11,464	—	—	3,377	219	296	23	3,915	—
	1965	13,439	—	—	3,577	896	330	19	4,822	—
	1966	12,979	—	—	3,018	1,079	285	18	4,400	—
	1967	15,794	—	—	3,710	1,305	537	57	5,609	—
	1968	18,555	—	—	7,888	1,420	620	45	9,973	—
	1969	21,503	—	—	6,930	1,711	1,075	41	9,757	—
	1970	25,770	—	25,770	7,128	3,563	1,196	80	11,967	13,803
	1971	29,892	5,626	24,266	7,843	5,600	1,502	120	15,065	9,201
1972	37,218	6,341		8,191	8,187	1,442	171	17,991	19,227	
22. Uttar Pradesh	1961	2,81,060	—	—	67,467	23,018	10,881		1,01,366	—
	1962	3,86,189	—	—	72,372	24,972	11,189		1,05,533	—
	1963	4,17,712	—	—	79,474	26,999	11,113		1,17,566	—
	1964	3,74,310	—	—	83,345	26,719	8,192	1,359	1,19,615	—
	1965	3,72,252	—	—	86,271	31,253	10,506	2,263	1,30,293	—
	1966	3,29,688	—	—	76,058	28,553	9,472	1,935	1,16,018	—
	1967	2,91,441	—	—	71,121	30,490	11,179	2,422	1,15,212	—
	1968	2,93,531	—	—	71,021	39,119	15,032	2,394	1,27,566	—
	1969	3,19,666	—	—	79,005	54,380	18,171	3,091	1,54,647	—
	1970	4,25,718	1,49,179	2,76,539	92,462	69,935	26,818	4,322	1,93,537	83,002
	1971	5,31,701	20,47,74	3,26,927	1,03,547	67,411	35,194	5,559	2,317,11	95,216
1972	8,14,417	3,01,216		1,60,726	1,38,623	65,028	9,450	3,73,827	4,40,590*	

23. West Bengal	1961	3,22,964	—	—	53,261	19,963	9,946	—	80,170	—
	1962	4,36,003	—	—	76,108	22,965	10,655	—	1,09,728	—
	1963	5,10,538	—	—	74,049	33,418	14,630	—	1,22,097	—
	1964	4,94,852	—	—	75,802	43,158	17,029	776	1,36,765	—
	1965	4,81,247	—	—	73,565	50,569	18,914	1,078	1,44,126	—
	1966	4,45,184	—	—	68,191	46,240	17,590	719	1,32,740	—
	1967	4,36,481	—	—	76,359	54,340	19,694	1,038	1,51,431	—
	1968	4,34,423	—	—	73,894	67,606	26,399	1,515	1,69,414	—
	1969	4,96,475	—	—	67,572	82,203	29,696	2,564	1,82,055	—
	1970	5,85,258	1,92,946	3,92,312	75,624	1,09,938	40,009	2,521	2,26,092	1,66,220
	1971	8,75,874	2,89,408	5,86,466	1,08,505	1,79,827	77,462	2,856	3,68,650	2,17,816
	1972	1,38,049	4,56,030	—	1,83,810	3,25,175	1,34,788	3,723	6,47,502	7,32,957
	24. Laccadive Islands	1961	—	—	—	—	—	—	—	—
1962		—	—	—	—	—	—	—	—	—
1963		—	—	—	—	—	—	—	—	—
1964		—	—	—	—	—	—	—	—	—
1965		—	—	—	—	—	—	—	—	—
1966		—	—	—	—	—	—	—	—	—
1967		—	—	—	—	—	—	—	—	—
1968		—	—	—	—	—	—	—	—	—
1969		453	—	—	99	—	5	4	108	—
1970		998	259	739	238	11	24	8	281	458
1971		1,344	359	985	287	23	36	9	355	630
1972	1,470	410	..	310	36	57	10	413	1,057	
All India	1961	18,32,703	—	—	4,63,633	70,811	55,786	—	5,90,230	—
	1962	23,79,530	—	—	5,53,618	90,954	63,784	—	7,08,356	—
	1963	25,18,463	—	—	5,59,967	1,11,269	67,830	—	7,39,066	—
	1964	24,92,874	—	—	5,84,571	1,47,961	72,326	—	8,04,858	—
	1965	25,85,473	—	—	5,80,265	1,75,510	86,058	—	8,41,833	—
	1966	26,22,460	—	—	6,19,410	2,04,426	93,581	—	9,17,487	—
	1967	27,40,435	—	—	7,14,148	3,51,744	1,21,479	—	1,087,371	—
	1968	20,11,642	—	—	8,09,631	3,24,319	1,75,390	—	1,30,9340	—
	1969	34,23,885	—	—	9,09,686	4,01,326	2,15,238	—	15,26,250	—
	1970	40,68,554	11,00,698	29,67,856	11,01,194	4,43,884	2,76,538	—	1,82,1616	11,46,240
1971	50,99,919	15,17,043	35,82,876	12,96,101	6,05,222	—	—	22,95,564	12,87,312	
1972	68,95,089	19,48,610	—	17,44,635	9,31,836	5,48,687	53,221	32,78,429	36,16,660	

*Data in each case refer to the end of the year.

**Separate figures for post-graduates are available from 1964. Earlier post-graduates were included in graduates.

@Figures are available only from the year 1970.

(—)Denotes data not available.

APPENDIX XXV

(para 4.40)

**Index number of job seekers on the live registers of Employment Exchanges
(Year 1972)**

(Base 1961)

State/Union Territory	All registrants	Educated registrants
1	2	3
1. Andhra Pradesh	344.00	570.76
2. Assam	253.13	408.85
3. Bihar	540.38	1,104.06
4. Chandigarh*	300.54	1,028.54
5. Delhi	280.40	339.16
6. Goa*	368.58	927.46
7. Gujarat	316.35	457.57
8. Haryana*	337.86	454.96
9. Himachal Pradesh	943.83	1,588.06
10. Jammu & Kashmir	789.28	946.80
11. Kerala	317.46	387.86
12. Madhya Pradesh	537.17	1,117.72
13. Tamil Nadu	313.84	520.93
14. Maharashtra	347.97	533.10
15. Manipur	510.42	201.73
16. Mysore	355.22	451.02
17. Orissa	352.50	797.72
18. Pondicherry	686.89	1369.46
19. Punjab	234.36	229.83
20. Rajasthan	384.81	405.49
21. Tripura	692.17	2,070.31
22. Uttar Pradesh	289.77	368.79
23. West Bengal	427.43	807.66
24. All India	376.23	555.45

*The index numbers for Chandigarh and Haryana have the figure as on 31st Dec., 1966 as their base and for Goa the base is 31st December, 1964.

APPENDIX XXVI

(para 4.40)

Registrations and placements with their percentage during the years 1961 to 1972.

(figures in thousands)

Year	Registration during the year	Placements during the year	Percentage of placements to registrations
1	2	3	4
1961	3,230	404	12.5
1962	3,845	458	11.9
1963	4,152	536	12.9
1964	3,832	545	14.2
1965	3,958	570	14.4
1966	3,871	507	13.1
1967	3,912	431	11.0
1968	4,039	424	10.5
1969	4,201	432	10.3
1970	4,516	447	9.9
1971	5,130	507	9.9
1972*	3,221	299	9.3

Source : Directorate General of Employment and Training, New Delhi.

*Position pertaining to the period from January to June 1972.

APPENDIX XXVII

(para 4.41)

Employment (in lakhs) in the organised sectors (Public and Private) and the rate of increase in the years 1966 to 1972*

State/Union Territory		Sector		
		Public	Private	Total
1	2	3	4	5
1. Andhra Pradesh	1966	6.60	2.30	8.90
	1967	6.68	3.03	9.70
	1968	6.58	2.93	9.51
	1969	6.72	2.88	9.60
	1970	6.89	2.95	9.84
	1971	7.14	2.94	10.08
	1972	7.60	3.13	10.72
	Percentage change from 1966 to 1972	+15.2	+36.1	+20.4
Average percentage annual change from 1966 to 1972	+2.5	+6.0	+3.4	
2. Assam	1966	2.30	5.10	7.40
	1967	2.38	5.13	7.51
	1968	2.44	4.94	7.38
	1969	2.54	4.47	7.01
	1970	2.53	4.47	7.00
	1971	2.66	4.31	6.98
	1972	2.35	4.56	6.91
	Percentage change from 1966 to 1972	+2.2	-10.6	-6.6
Average percentage annual change from 1966 to 1972	+0.4	-1.8	-1.1	

*The position reported for each year refers to 31st March of the year.

APPENDIX XXVII—*contd.*

State/Union Territory		Sector		
		Public	Private	Total
1	2	3	4	5
3. Bihar	1966	7.40	4.40	11.80
	1967	7.49	4.61	12.10
	1968	7.55	4.35	11.90
	1969	7.47	4.63	12.10
	1970	7.53	4.68	12.20
	1971	7.67	4.48	12.15
	1972	8.59	3.72	12.30
	Percentage change from 1966 to 1972	+16.1	-15.5	+4.2
	Average percentage annual change from 1966 to 1972	+2.7	-2.6	+0.7
4. Chandigarh*	1967	0.18	0.07	0.25
	1968	0.22	0.08	0.30
	1969	0.24	0.09	0.33
	1970	0.25	0.09	0.34
	1971	0.26	0.11	0.37
	1972	0.27	0.12	0.39
	Percentage change from 1967 to 1972	+50.0	+71.4	+56.0
	Average percentage annual change from 1967 to 1972	+10.0	+14.3	+11.2
5. Delhi	1966	3.50	1.50	5.00
	1967	3.63	1.90	5.53
	1968	3.73	1.58	5.31
	1969	3.82	1.63	5.45
	1970	4.00	1.70	5.71
	1971	4.09	1.59	5.68
	1972	4.26	1.56	5.82
	Percentage change from 1966 to 1972	+21.7	+4.0	+16.4
	Average percentage annual change from 1966 to 1972	+3.6	+0.7	-2.7

*Chandigarh became separate territory in 1967 only.

APPENDIX XXVII—contd.

State/Union Territory		Sector		
		Public	Private	Total
1	2	3	4	5
6. Goa, Daman and Diu*	1971	0.26	0.12	0.39
	1972	0.29	0.14	0.43
	Percentage change from 1971 to 1972	+11.5	+16.7	+10.3
7. Gujarat	1966	4.50	3.90	8.40
	1967	4.56	4.70	9.26
	1968	4.59	4.66	9.26
	1969	4.73	4.52	9.25
	1970	4.99	4.60	9.60
	1971	5.16	4.70	9.86
	1972	5.39	4.86	10.25
	Percentage change from 1966 to 1972	+19.8	+24.6	+22.0
	Average percentage annual change from 1966 to 1972	+3.3	+4.1	+3.7
8. Haryana**	1967	1.30	0.84	2.13
	1968	1.31	0.87	2.18
	1969	1.47	0.92	2.39
	1970	1.61	0.90	2.50
	1971	1.75	1.06	2.80
	1972	1.90	1.15	3.05
	Percentage change from 1967 to 1972	+46.2	+36.9	+43.2
Average percentage annual change from 1967 to 1972	+9.2	+7.4	+8.6	
9. Himachal Pradesh	1966	0.70	0.10	0.80
	1967	1.06	0.13	1.19
	1968	1.19	0.14	1.33
	1969	1.51	0.14	1.65
	1970	1.52	0.13	1.65
	1971	1.73	0.13	1.86
	1972	1.88	0.14	2.02
	Percentage change from 1966 to 1972	+168.6	+40.0	+152.5
	Average percentage annual change from 1966 to 1972	+28.1	+6.7	+25.4

* Information in respect of Goa, Daman & Diu is available from the year 1970-71 only.

**Information for Haryana State is available from the year 1967 only.

APPENDIX XXVII—contd.

State/Union Territory		Sector		
		Public	Private	Total
1	2	3	4	5
10. Jammu & Kashmir*	1970	88.5	5.8	94.2
	1971	90.7	6.1	96.8
	1972	95.9	5.9	101.9
	Percentage change from 1970 to 1972	+8.4	+1.7	+8.2
	Average percentage annual Change from 1970 to 1972	+4.2	+0.9	+4.1
11. Kerala	1966	2.60	3.60	6.20
	1967	2.61	4.29	6.89
	1968	2.68	4.35	7.03
	1969	2.81	4.34	7.15
	1970	2.93	4.10	7.03
	1971	3.14	3.96	7.10
	1972	3.36	4.17	7.53
	Percentage change from 1966 to 1972	+29.2	15.8	+21.5
Average percentage annual from 1966 to 1972	+4.9	+2.6	+3.6	
12. Madhya Pradesh	1966	7.20	2.20	9.40
	1967	7.28	2.35	9.62
	1968	7.35	2.22	9.54
	1969	7.32	2.21	9.53
	1970	7.47	2.25	9.72
	1971	7.66	2.26	9.91
	1972	8.12	2.33	10.45
	Percentage change from 1966 to 1972	+12.8	+5.9	+11.2
Average percentage annual change from 1966 to 1972	+2.1	+1.0	+1.9	

*For Jammu and Kashmir data are available for 1970 to 1972 only.

APPENDIX XXVII—contd.

State/Union Territory		Sector			
		Public	Private	Total	
1	2	3	4	5	
13 Maharashtra	1966	11.80	10.20	22.00	
	1967	12.49	10.71	22.30	
	1968	13.06	10.56	23.68	
	1969	13.47	10.93	24.40	
	1970	13.97	11.17	25.14	
	1971	14.83	11.61	26.44	
	1972	14.88	11.81	26.69	
		Percentage change from 1966 to 1972	+26.1	+15.8	+21.3
		Average percentage annual change from 1966 to 1972	+4.4	+2.6	+3.6
14. Manipur	1966	0.20	..	0.20	
	1967	0.20	0.01	0.21	
	1968	0.20	0.01	0.21	
	1969	0.20	0.01	0.21	
	1970	0.20	0.01	0.22	
	1971	0.20	0.01	0.22	
	1972	0.21	0.01	0.23	
		Percentage change from 1966 to 1972	+5.0	..	+15.0
		Average percentage annual change from 1966 to 1972	+0.8	..	+2.5
15. Mysore	1966	4.80	1.60	6.40	
	1967	5.09	2.15	7.24	
	1968	4.93	2.18	7.11	
	1969	5.18	2.46	7.64	
	1970	5.44	2.57	8.01	
	1971	5.59	2.74	8.33	
	1972	5.74	2.77	8.51	
		Percentage change from 1966 to 1972	+19.8	+73.1	+33.6
		Average percentage annual change from 1966 to 1972	+3.3	+72.2	+5.6

APPENDIX XXVII—contd.

State/Union Territory		Sector		
		Public	Private	Total
1	2	3	4	5
16. Orissa	1966	3.00	0.90	3.90
	1967	3.12	0.87	3.99
	1968	3.16	0.77	3.93
	1969	3.15	0.75	3.90
	1970	3.16	0.75	3.91
	1971	3.19	0.80	3.99
	1972	3.33	0.80	4.12
	Percentage change from 1966 to 1972	+11.0	+11.1	+5.6
	Average Percentage annual change from 1966 to 1972	+1.8	+1.9	+0.9
17. Pondicherry	1966	0.10	0.10	0.20
	1967	0.13	0.16	0.28
	1968	0.13	0.16	0.29
	1969	0.14	0.14	0.28
	1970	0.15	0.15	0.29
	1971	0.15	0.15	0.30
	1972	0.19	0.16	0.36
	Percentage change from 1966 to 1972	+90.0	+60.0	+80.0
	Average Percentage annual change from 1966 to 1972	+15.0	+10.0	+13.3
18. Punjab	1966*	4.90	1.60	6.50
	1967	3.04	1.04	4.09
	1968	3.03	1.05	4.08
	1969	2.96	1.06	4.02
	1970	2.98	1.11	4.10
	1971	3.07	1.20	4.27
	1972	3.24	1.20	4.43
	Percentage change from 1967 to 1972	+6.6	+15.4	+8.3
	Average percentage annual change from 1967 to 1972	+1.3	+3.1	+1.7

* Punjab included Chandigarh and Haryana till 1966. Hence percentage change has been calculated from 1967.

APPENDIX XXVIII—*contd.*

State/Union Territory		Sector			
		Public	Private	Total	
1	2	3	4	5	
19. Rajasthan	1966	4.20	0.90	5.10	
	1967	4.28	1.03	5.31	
	1968	4.41	1.01	5.42	
	1969	4.47	1.05	5.51	
	1970	4.57	1.08	5.65	
	1971	4.73	1.09	5.82	
	1972	4.95	1.17	6.11	
		Percentage change from 1966 to 1972	+17.9	+30.0	+19.2
		Average percentage annual change from 1966 to 1972	+3.0	+5.0	+3.3
	20. Tamil Nadu	1966	7.70	5.30	13.00
1967		8.09	6.33	14.42	
1968		8.26	6.24	14.50	
1969		8.31	6.39	14.70	
1970		8.68	6.44	15.12	
1971		8.89	6.52	15.41	
1972		9.35	6.39	15.73	
		Percentage change from 1966 to 1972	+21.4	+20.6	+21.0
		Average percentage annual change from 1966 to 1972	+3.6	+3.4	+3.5
21. Tripura		1966	0.20	0.10	0.30
	1967	0.26	0.06	0.32	
	1968	0.28	0.07	0.35	
	1969	0.31	0.07	0.37	
	1970	0.31	0.06	0.37	
	1971	0.33	0.06	0.39	
	1972	0.36	0.06	0.43	
		Percentage change from 1966 to 1972	+20.0	-40.0	+43.3
		Average percentage annual change from 1966 to 1972	+13.3	-3.7	+7.2

APPENDIX XXVII—*contd.*

State/Union Territory		Sector		
		Public	Private	Total
1	2	3	4	5
22. Uttar Pradesh	1966	12.20	34.0	16.50
	1967	12.41	4.63	17.04
	1968	12.53	4.72	17.25
	1969	13.01	5.24	18.25
	1970	13.61	5.30	18.90
	1971	13.86	5.40	19.27
	1972	14.29	5.10	19.39
	Percentage change from 1966 to 1972	+17.1	+18.6	+17.5
	Average percentage annual change from 1966 to 1972	+2.9	+3.1	+2.9
23. West Bengal	1966	9.80	12.80	22.60
	1967	10.07	12.82	22.89
	1968	10.41	12.38	22.79
	1969	10.46	12.09	22.55
	1970	10.69	12.27	22.97
	1971	10.74	12.18	22.92
	1972	10.93	12.15	23.08
	Percentage change from 1966 to 1972	+11.5	-5.1	+2.1
	Average percentage annual change from 1966 to 1972	+1.9	-0.3	+0.4
24. All India total*	1966	93.60	61.00	154.60
	1967	96.34	66.84	163.18
	1968	98.02	65.25	163.27
	1969	100.27	66.04	166.30
	1970	103.49	66.86	170.35
	1971	107.11	67.43	174.54
	1972	111.89	67.52	179.40
	Percentage change from 1966 to 1972	+19.5	+10.7	+16.0
	Average percentage annual change from 1966 to 1972	+3.3	+1.2	+2.7

*The figures for J & K are not included in this total.

APPENDIX XXVIII

(Para 4.41)

Employment in organised sectors by industry-groups
(Years 1966-72)*

(Figures in Lakhs)

Industry Group	1966			1967			1968			1969			1970			1971			1972		
	Pub- lic	Pri- vate	Total	Pub- lic	Pri- vate	Total	Pub- lic	Pri- vate	Total	Pub- lic	Pri- vate	Total	Pub- lic	Pri- vate	Total	Pub- lic	Pri- vate	Total	Pub- lic	Pri- vate	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Plantation Forestry .	2.3	8.7	11.0	2.32	8.70	11.01	2.46	8.52	10.98	2.41	8.13	10.54	2.64	8.15	10.79	2.64	7.98	10.63	2.83	8.10	10.93
2. Mining, Quarrying .	1.6	5.0	6.6	1.76	4.76	6.52	1.74	4.33	6.07	1.74	4.22	5.96	1.77	4.29	6.06	1.82	4.04	5.86	2.55	3.48	6.03
3. Manufacturing	6.7	35.9	42.6	6.95	37.48	44.43	7.31	37.09	44.41	7.57	37.75	44.33	7.82	39.00	46.83	8.03	39.55	47.58	8.70	39.70	48.40
4. Construction .	7.7	2.2	9.9	7.64	2.25	9.89	7.56	1.46	9.02	7.08	1.54	8.62	7.97	1.52	9.49	8.79	1.39	10.18	9.15	1.65	10.80
5. Electricity, gas, etc. .	3.1	0.4	3.5	3.37	0.45	3.81	3.46	0.45	3.91	3.69	0.44	4.13	4.02	0.44	4.46	4.31	0.46	4.77	4.58	0.45	5.03
6. Trade & Com- merce .	1.5	2.4	3.9	1.66	3.47	5.13	1.77	3.53	5.30	2.64	2.89	5.53	2.85	2.92	5.71	3.17	3.05	6.21	3.74	2.96	6.70
7. Transport, Com- munication	21.0	1.1	22.1	21.15	1.21	22.35	21.37	1.05	22.42	21.60	1.08	22.68	22.88	1.02	22.89	22.21	0.96	23.17	22.49	9.84	23.33
8. Services .	49.8	5.2	55.0	51.50	8.53	60.03	52.36	8.80	61.17	53.21	9.23	62.44	54.75	9.63	64.38	56.04	10.00	66.04	57.85	10.33	68.18
9. Total .	93.7	60.9	154.6	96.34	66.84	163.18	98.02	65.25	163.27	100.95	65.28	166.22	103.74	66.96	170.70	107.11	67.43	174.54	111.89	67.52	179.41

Source : Employment reviews for the years 1966 to 1971 and June 1972 issued by D. G. E. & T., New Delhi.

*Position reported for each year refers to 31st March of the year.

APPENDIX XXIX
(Para 4.43)

Time available for additional work to the members of the rural labour households

State	District within which the study was undertaken	Village	Extra hours per week available for additional work as percentage of total hours for work
1	2	3	4
1. Andhra Pradesh	Mahbubnagar	(i) Palonda	6.0
		(ii) Kanuaipalli	1.0
		(iii) Chinnanadunur	5.7
2. Bihar	Gaya	(i) Kujai	9.6
		(ii) kekhodeora	4.4
		(iii) Mayapore	8.
3. Gujarat	Surat	(i) Kymbharia	9.8
		(ii) Dumda	4.7
		(iii) Kothali	10.7
4. Himachal Pradesh	Chambu	(i) Mehla	Less than 0.5
		(ii) Nainikhud	Do.
		(iii) Pukhri	Do.
5. Madhya Pradesh	Rewa	(i) Duari	10.2
		(ii) Ambi	11.0
		(iii) Rajgarh	21.7
6. Maharashtra	Ratnagiri	(i) Shirigaon	11.4
		(ii) Karul	15.9
		(iii) Dhampur	20.3
	Wardha	(i) Wagholi	13.3
		(ii) Seloo	7.1
		(iii) Hiora	13.3
7. Mysore	Hassan	(i) Harauhathi	9.
		(ii) Niluvagilu	4.0
		(iii) Nuggehalli	14.1
8. Punjab	Gurdaspur	(i) Zaffarwal	16.7
		(ii) Raipur (Kath.aur)	19.7
		(iii) Gahlahri	16.
9. Rajasthan	Tonk	(i) Mahaudwar	3.4
		(ii) Arnaikedar	9.7
		(iii) Lalwari	8.3
10. Tamil Nadu	Dharmapuri	(i) Sethigarai	24
		(ii) Poyyaputi	26.0
		(iii) A Settupal.i	32.9
11. Uttar Pradesh	Etawah	(i) Kunera	6.4
		(ii) Dalebnagar	14.1
		(iii) Bhatpura	12.1
12. West Bengal	Bankura	(i) Morar	11.43
		(ii) Jamjuri	14.0
		(iii) Molian	22.7

Source :Unpublished data available through the courtesy of the Director, Labour Bureau, Simla from the Intensive Type Studies conducted by the Bureau(1967-70).

APPENDIX—XXX

(Paras 4.46—4.49)

Summary of the main findings of the studies sponsored by the Expert Committee on Unemployment

The Expert Committee on Unemployment sponsored seven studies through the universities and other research institutions for studying different

aspects of the problem of unemployment in some selected areas. The following is the list of these studies :—

Name of the study	The Areas covered	Objectives of the study
1	2	3
1. Unemployment in certain selected urban and rural areas of Assam.	Selected rural and urban areas of Assam having peculiar unemployment problem.	To study in depth the problem of unemployment both in rural and urban areas of Assam.
2. Intensive study of the problem of unemployment in specific urban and rural areas of Kerala.	Selected urban and rural areas in the State of Kerala.	To conduct an intensive study of the problem of unemployment and under-employment in specific urban and rural areas in the State of Kerala.
3. Study of the impact of rural electrification and minor irrigation on rural unemployment.	Two sets of villages each comprising (i) an electrified as well as irrigated village and (ii) a non-electrified and poorly irrigated village.	To study the effect of electrification and minor irrigation on rural unemployment.
4. Field study of the problem of unemployment in some selected urban and rural areas of West Bengal.	On urban areas in Calcutta, one semiurban areas and one rural areas near Calcutta.	To study the problem of unemployment, particularly among the educated people in and around Calcutta.
5. Study of employment pattern of the post-graduate students of the University of Calcutta.	All students who got themselves admitted to the M.A., M.Com. and M.Sc. Courses in 1966-67 and 1967-68 in the University of Calcutta.	To study the employment pattern of post-graduate students of the University of Calcutta.
6. An Appraisal of the Schemes of Rural Employment.	Selected rural areas of Nalgonda and Cuddapah districts (Andhra Pradesh).	A critical appraisal of rural employment schemes such as Small Farmer Development Agency Marginal Farmers Agricultural Labour, Rural, Works Programmes for chronically drought affected areas and Crash Scheme for Rural Employment.
7. Study of Employment and unemployment in selected urban areas of Kamrup district.	Six towns of Kamrup district	To measure the extent of unemployment and to study the employment pattern.

The main findings of the reports are summarised below :—

I—A study of the problem of unemployment in selected urban and rural areas of West Bengal:

Objectives of the study

- (a) To test implications of the concepts and definitions of unemployed, under-employed, etc. adopted by various agencies at different times;
- (b) to examine the degree of closeness between these concepts and definitions;
- (c) to provide a subjective correspondence between job expectations and qualifications in a particular milieu of actual unemployment situation; and
- (d) to relate the number of the actually unemployed variously defined to the specific population.

The Sample

One urban area in Calcutta, one semi-urban and one rural areas near Calcutta was selected for the study. The distribution of the sample administered in different areas is shown below :—

Area	No. of sample households
Calcutta proper (Corporation area only)	3,036
Calcutta suburbs (Usually included in the Greater Calcutta area)	
South East of Calcutta	361
North-West	869
North-East	782
Balurghat Town	297
Purulia Town	296
Semi-Urban	
Taldih	50
Rural	
Gangarampur	50
Kumarhat	50
Total households	5,782

Main Findings

Altogether 5,782 households were covered by the survey, involving 37,029 individuals, out of whom 2,956 were identified as unemployed. Of these 5,632 households involving 36,112 individuals, of whom 2,884 could be identified as unemployed, were in the urban areas covering Calcutta proper, suburban Calcutta divided into North-West, North-East and the South-Eastern suburbs, and two peripheral townships of Balurghat and Purulia. The ratios of the unemployed to households and population respectively for Calcutta proper, suburban Calcutta and the peripheral townships were as under :—

Area	Proportion of the unemployed to households (per cent)	Proportion of the unemployed to number of persons in households (per cent)
Calcutta	56.85	9.57
Suburban Calcutta	47.42	6.14
Peripheral township	35.03	6.56
All urban	51.03	7.98

It is interesting to note that suburban metropolitan as well as peripheral urban areas have a smaller incidence of unemployment, both in relation to households and number of persons covered by the households.

The income distribution of the sample households shows that 40.23 per cent were with monthly income of less than Rs. 250/, 29.95 per cent with monthly income of Rs. 250/- to Rs. 500/- and the remaining households with monthly income of Rs. 500/-. Profession-wise distribution of the surveyed households showed 38 per cent with clerical work, 19.25 per cent with business and 14.88 per cent as industrial workers. The job aspirations indicated that 64.56 per cent of the present unemployed persons looked forward to clerical and school teaching jobs mostly within the income range of Rs. 300/- per month.

Age distribution of the unemployed show the dominance of age group 20 to 24 years at 56.59 per cent followed by 25 to 30 years at 20.32 per cent and 15 to 19 years old at 17.30 per cent. Thus 74.91 per cent of the unemployed fall within the age of 24 years and 94.23 per cent within the age of 29 years, revealing the existing unemployment problem to be one of entry and age of generally educated persons.

Consistently with the foregoing, 84.57 per cent of the unemployed are revealed to be men, emphasising, *inter alia*, the middle class character of unemployment as well as the fact that the supposed proletarianization has not yet thrown women into the working force. Similarly, 92.51 per cent of them are unmarried. Considering the age distribution this would primarily appear to be a sociological rather than an economic phenomenon, involving upper caste norms. Understandably, the rural pattern in these as well as in respect of many other facts of the corresponding phenomenon are significantly different. It follows that 77.21 per cent of the unemployed are, by the very nature of the phenomenon, new entrants into the labour force and 64.53 per cent have registered themselves with the Employment Exchanges. Characteristically, the proportions of registrants are the highest for the North-East and North-West suburbs of Calcutta at 80.58 and 74.05 per cent respectively, which may represent one or both of the phenomena, namely, that these are industrial areas and proportionately larger migrant population of these areas is more enterprising, so much so, that the incidence of employment is lower among them, confirming the fact that 77.21 per cent are new entrants, 73.55 per cent had no previous job or vocational experience.

As regards the nature of efforts made by the unemployed persons to obtain assignments, the recognition that 26.42 per cent of the unemployed are attempting for 1 to 2 years and 46.53 per cent for two years or more to obtain a job when read with the proposition that the 24.91 per cent of the unemployed fall within the age of 24, appears to indicate that the socially accepted cut-off point for job entry and economic independence falls heavily at age 22.

An important feature about the unemployed appears to be that as high a proportion of them as 59.57 per cent do not have any idea as regards the kind of retraining or job attitude as would enable them to obtain employment, nor are they aware of any particular kind of impediments in their acquiring special skills. Only 17.26 per cent regarded financial assistance as being relevant. As large a proportion as 70.21 per cent would not know the next relevant move from where they are know the In spite of this, 22.95 plus 8.21 plus 14.94 per cent of the unemployed have reservations about moving to manual, risky or low status jobs respectively.

The definitions of unemployment and under-employment along income dimension alone are likely to be more unrealistic than the time-cum-work dimension. The problem of under-employment is fictitious. Only 0.71 per cent relate under-employment to the lack of scope for utilising one's talent and training, unless one takes the view that the social marginal productivity of school teachers and clerical workers would be very largely less than Rs. 225/- per month, even when considered in terms of the needs of the households.

II—A study of the employment pattern of post-graduate students of the Calcutta University

The problem of educated unemployment is an important one on which much analytical work has been done in recent times. It was, therefore, decided to focus attention on problems of employment and unemployment among the post-graduates. Two sets of graduates enrolled as post-graduates students in the different Arts, Science and Commerce Departments of the Calcutta University in the years 1962 and 1967 respectively were considered for study. It was decided to send out questionnaires to 1,000 persons chosen by a process of stratified random sampling—the student population in each of the two years being stratified into 21 subject groups. The number of sampling units chosen from each year and from each subject group was in proportion to its weight in the corresponding population. 440 questionnaires were sent out on this basis to 1962 graduates and 560 to 1967 graduates.

Objectives of the study

The main objectives behind the inclusion of the 1962 graduates were to compare not so much the unemployment ratio today among the 1962 and the 1967 graduates as the waiting periods before obtaining full-time jobs, the average period of unemployment, the occupational pattern of employment etc., as between these two sets of graduates. Comparison over a 5-year interval was expected to throw some light on improvement or deterioration in the case of getting jobs for post-graduates specialised in different subject groups. In particular, some employment aspects like job-mobility, prospects of advancement in jobs for graduates of different subject groups, waiting period, etc. could be more fully

ascertained for 1962 graduates and more details on the nature of the labour market in which 1967 graduates were to enter could be secured. A high non-response ratio among 1962 graduates and inadequate finance and time available for follow-up however, frustrated many of these objectives.

The broad objectives of the study were to find out the extent of outright unemployment, the extent of under-employment, the extent of the lack of correspondence between training and job actually performed and its implications for manpower planning. Significant differences, if any, in these aspects between 1962 and 1967 graduates and (for each year) as between the different subject groups had to be investigated. A variety of other information regarding jobs held, special qualifications acquired, job-satisfaction etc., were also sought to be collected through the questionnaire partly for subsequent potential use and partly to provide cross-checks on the more vital points of information sought from the respondents.

The response ratio for this group was as low as 23%. Of the 440 questionnaires sent out, only 99 were received back from the respondents. Another 41 were returned by the post offices on the ground that addresses could not be traced. In view of such a poor response it was considered injudicious to spend time, money and effort in following-up non-respondents of this group. Follow-up, therefore, was concentrated solely on 1967 graduates where more promising results were likely.

With so few response, it was also not possible to concentrate on differences as between the 21 subject groups. Accordingly, for purpose of this sample, 3 broad subject groups were considered—Arts, Science and Commerce. The table below shows the response ratios for 1962 graduates for these broad classifications.

1962 Graduates : Response ratios

Subject Group	Sample size	Replies received	Response ratio (%)
Arts	224	51	23
Science	132	22	17
Commerce	84	26	31
TOTAL	440	99	23

The table below gives an idea of the current state of employment of 1962 graduates.

1962 Graduates : Unemployment Ratios

Subject Group	Rep- lies recei- ved	Num- ber em- plo- yed	Num- ber un- em- ployed	Marri- ed fem- ales	Percentage of unemployment	
					Total	Acc- ount- ed by marri- ed fema- les
Arts	51	39	12	10	24	20
Science	22	20	2	2	9	9
Commerce	26	24	2	..	8	0
TOTAL	99	83	16	12	16	12

The persons unemployed did not report any work-income from part-time jobs or private tuitions.

Table below depicts the employment pattern of the 1962 graduates :

1962 Graduates : Nature of jobs held currently by the full-time employed

Subject Group	Administrative of which in		Clerical of which in		Professional and Technical	Teaching	Research	N. A.	Total
	Total	(Banks)	Total	(Banks)					
Arts	5	(0)	5	(2)	..	28	..	1	39
Science	..	(0)	..	(0)	4	14	2	..	20
Commrce	6	(2)	10	(8)	5	3	..	..	24
TOTAL	11	(2)	15	(10)	9	45	2	1	83

The corresponding salary distribution of 1962 Graduates currently employed on a full-time basis is given below.

Salary distribution of the employed 1962 Graduates (Gross salaries)

Subject Group	Salary classes						Total
	Below 300 Rs	300—499 Rs	500—699 Rs	700—899 Rs	900 and over	Not available	
Arts	2	22	6	3	2(a)	4	39
Science	..	9	4	2	3(b)	2	20
Commerce	3	6	8	3	4	..	24
TOTAL	5	37	18	8	9	6	83

(a) One of these two persons is working abroad.

(b) These three persons are all engaged in teaching or research abroad and are likely to fall in this class, though in two cases their salaries have not been reported.

The employed persons were grouped in terms of their academic and other qualifications in order to investigate how far post-graduates were better than the graduates who dropped off their post-graduate studies and failed to acquire masters' degrees. There were 9 such cases of drop outs among 1962 graduates who enrolled at the Calcutta University for prosecuting their post-graduate studies. It was observed that the drop-outs (those who did not complete their masters' degree) did much better than post-graduates including those with special qualifications, who are working in India. So far as this sample is concerned, the cases of drop-outs reveal that there is no significant salary benefit arising from post-graduate qualifications and delayed entry into the labour market.

While the minimum salary for Science graduates is somewhat higher compared with graduates of the Arts and the Commerce groups, their maximum salary earned (in India) is relatively low and the range of their salaries is also narrow. Science graduates apparently had less opportunities in competing for jobs with higher pay most of which lie outside the teaching profession. This may in part explain the "brain drain" which involves Science graduates particularly.

Employment Exchanges played a minor role as a job-contacting agency for this group of graduates. Newspaper advertisements and personal contacts played the more important role—the last being unimportant for Science graduates.

The table below gives a broad idea of job mobility among those of the 1962-graduates who are currently employed.

1962—Graduates : Job mobility

Subject Group	Number currently employed who have held					Total
	1 Job	2 Jobs	3 Jobs	More than 3 Jobs	Not available	
Arts	..	20	11	6	1	39
Science	..	5	9	4	0	20
Commerce	..	8	9	3	2	24
TOTAL	..	33	29	13	3	83

At least 40% of those currently employed continued with their first full-time job, about 19% have held 3 jobs or more since they entered the labour market. It was not possible to ascertain in detail how far mobility was voluntary, leading to salary increases or increased job-satisfaction, (or enforced by terminations of jobs held) or how far mobility was inter-occupational or intra-occupational. Sufficient information on these things were not available to be put into a neat tabular form.

For those currently in employment waiting periods before getting into the first full-time job are given in the table below. The waiting periods were calculated with reference to approximate dates of passing their relevant examinations.

Distribution of 1962—Graduates in terms of waiting periods before first full-time job

Subject Group	Persons with waiting periods ranging between				Total
	0—6 months	6 months to 1 year	Over 1 year	Not available	
Arts	..	26	4	4	39
Science	..	14	4	2	20
Commerce	..	20	2	2	24
TOTAL	..	60	10	8	83

It is clear that (at least) 67% of the Arts graduates, 70% of the Science graduates and 83% of the Commerce graduates were able to get jobs within 6 months after their graduation (in case of drop outs) or post-graduate degree.

In a sense the "waiting periods" estimated in the table above are under estimates. As can be expected, many in the Universities were there because they had no jobs—this being particularly true of Arts and Commerce graduates. Of the 24 Commerce graduates currently employed only 5 were looking for jobs after completion of post-graduate studies. Those looking for job before and after taking their B.Com. degrees were 5 and 12 respectively. The same is broadly true of the Arts graduates. In the case of Science graduates, however, only 7 out of 20 were looking for jobs after taking their B.Sc. degrees, while 13 sought jobs only after completion of post-graduate studies.

Under-employment of 1962 graduates.

From the information collected, it appears that many of the post-graduates are "under-employed" in the sense that they are working in jobs which require lower (sometimes much lower) academic qualifications. Summarising the information, it is seen that of the 39 persons employed in Arts Group, 4 graduates, 5 post-graduates and 2 post-graduates with special qualifications are currently in jobs which demand these respective qualifications; there is, therefore, no under-employment in so far as these 11 persons are concerned. All the remaining members of the Arts Group (excepting 2 n.a. cases) suffer from varying degree of under-employment. For Arts as well as for other groups, potential under-employment in this sense tends to increase as candidates acquire more qualifications, though it may well be true that superior academic qualifications increase possibilities of getting a job.

Of the 560 questionnaires sent out to the 1967 graduates, response was in the first instance received from only 213 of them—representing an over-all response ratio of about 38%. Research assistants were then sent out to follow up as many non-respondents as possible, concentrating on the subject groups in which responses were particularly low and taking at least five non-respondents from each subject group. On the basis of this broad rule, a sufficient number of non-respondents were chosen at random from each subject group, according to its weight in the total sample. The list thus prepared was followed up by the research assistants. There has been some non-response from this list also because some of the persons had left their places of address and their present whereabouts were unknown. In all, 118 cases, belonging to different subject groups were effectively followed up. In the majority of such cases not the persons concerned but their relatives could be contacted and some information was collected from them regarding the employment status of the initial non-respondents. (Detailed information as per questionnaire was not available in many cases). The proportion of unemployment found for each subject group in the effective follow up list was then blown-up to cover all the initial non-respondents of the respective subject-groups. A weighted percentage of unemployment was then calculated for each subject group as a whole. The final results are shown below.

1967 Graduates : Estimated unemployment for different subject Groups

Subject Groups	Weighted percentage of unemployment
1. Ancient Indian History & Culture, etc.	88
2. Languages	56
3. Sanskrit	71
4. Economics	35
5. Education	25
6. English	51
7. Political Science	66
8. Philosophy	84
9. History	70
10. Bengali	85
TOTAL (Arts)	68
11. Agriculture	61
12. Botany, etc.	38
13. Geography & Geology	17
14. Statistics & Applied Mathematics	50
15. Pure Mathematics	42
16. Pure Chemistry	27
17. Pure Physics	22
18. Applied Physics	40
19. Applied Chemistry . . . . .	..
TOTAL (Science)	36
20. Commerce (day)	25
21. Commerce (evening)	22
TOTAL (Commerce)	23

Part-time earnings of 1967 unemployed graduates.

Monthly earnings from tuitions, etc.	Number engaged in tuitions, etc.
Rs.	
10—39	4
40—69	18
70—99	9
100—129	3
130—159	6
160—189	4
190—219	1
Not available	5
TOTAL	50

About 50% of those engaged in private tuitions are earning less than Rs. 70 per month. About 31% are earning between Rs. 100 and Rs. 200 per month. The majority teach students of the high school level—relatively fewer teach college students.

In seeking jobs, the unemployed depend mainly on newspaper advertisements. Relatively few depend on the employment exchanges.

1967 Graduates : Distribution of unemployed persons in different family income groups

Fathers/guardian's monthly income	Total number unemployed	Number of married females unemployed
Below Rs. 200	21	1
Rs. 200—399	35	4
400— 599	23	4
600— 799	10	4
800— 999	9	7
1000—1499	6	3
1500 and above	9	3
Not available	60	23
TOTAL	173	49

The data confirm our findings regarding under-employment among 1967 graduates. For the Arts group, 4 out of 6 Honours graduates and only 12 out of 45 post-graduates were not suffering from under-employment as defined for the study. The rest (n.a. cases excluded) are suffering from varying degrees of under-employment. The relative proportion of under-employment is much less for the Science group. The single Honours graduate in this group is not under-employed. Of the 62 Science post-graduates at least 37 are not under-employed. The remaining Science post-graduates (excluding 6 n.a. cases) are working in jobs which do not require a post-graduate degree. These are, therefore, under-employed. Commerce graduates suffer much more than other graduates from under-employment. Proportion of post-graduates under-employed is much higher for this group and so is the 'degree' of under-employment in many cases. Of the 9 pass and Honours graduates of this group 8 are working in jobs which require a Pass degree as minimum qualifications; of the 34 post-graduates only 2 are working in jobs which demand M.Com. as minimum qualifications. Under-employment among post-graduates is thus particularly serious in the Commerce group.

III—The unemployment problem in rural and urban areas of Assam—an intensive study.

Scope and coverage

The study was restricted to Dibrugarh town and six villages having a peculiar unemployment problem. With regard to the rural areas, six villages—two each from the three districts of Lakhimpur, Sibsagar and Dibrugarh, were selected in such a

manner that they represented, by and large, an average size village in the sub-division of the district and exhibited to some extent, the differences in the cropping pattern, the distribution of households by size of farms and their easy accessibility.

Sample design

The study was based on a sample survey in the urban area and on complete numeration in the rural area. The sample design adopted in the urban areas i.e., Dibrugarh town, was three-stage sampling with probability proportional to size. The first stage units were selected from the total number of 22 wards of Dibrugarh town in proportion to the ward-wise population of the house-holds. At the second stage, house-holds were selected from the selected ward-wise lists in proportion to their population in different income levels. At the third stage, within the income level of each ward, the house-holds were selected at random in proportion to their numbers in different family sizes. The sampling units were drawn up in such a fashion that the sample size did not exceed five per cent of the total households in the Dibrugarh town. In all 604 rural households comprising 4061 persons and 763 selected urban house-holds covering 4795 persons were surveyed during the study.

Nature and type of information collected

The required information from the rural areas i.e. six villages was collected in two Schedules and one Questionnaire. In the General Household Schedule, information relating to the female members and demographic characteristics, occupational distribution, activity status, labour-time disposition, land utilisation, inputs in cultivation, household industry, live-stock and live-stock products, the extent of the land leased-in and that leased out for cultivation, etc. was collected. In the second Schedule, that is, the Intensive Household Schedule, information relating to farm size and principle crops, agricultural operations and practices, details of employment, bullocks employed, the working force employed on the farm in agricultural operations and the duration of work, wage and cost data, crop, production, the work force employed on non-farm activities, the current receipts and disbursement, household consumer expenditure data etc. was collected.

In case of urban areas, the information pertaining to the particulars of the family and demographic characteristics, occupational distribution, activity status, labour-time disposition, general education, professional and technical qualifications of unemployment, the duration of unemployment, the nature and form of unemployment, current receipts, disbursement and household consumer expenditure, etc. was collected in one schedule. Thus, two schedules and form of unemployment, current receipts, disbursement in the urban areas were canvassed for eliciting the required information.

The data collected in the urban areas have been analysed under three broad heads, namely, (i) social background, economic status and occupational distribution, (ii) activity status and duration of work and (iii) the urban unemployed.

Similarly, the data collected in rural areas have been analysed under five main heads, namely, (i) social background, economic status and occupational

distribution, (ii) land utilisation farm-size and cropping patterns, (iii) activity status and the duration of work; (iv) the rural unemployment, and (v) agricultural operations, and the rural employment and unemployment.

The main findings of the study in respect of both the urban and rural areas are indicated below :

(a) Urban (Dibrugarh Town).

(i) *Social background, economic status and occupational distribution.*—The study revealed that 15.35 per cent were illiterate, 14.52 per cent literate but below primary level, and the educational level of about 47.23 per cent was between the primary and matric failed level. The dependency ratio observed was high i.e. 4:1. The occupational distribution showed that 62 per cent of the persons covered during the survey were non-workers. According to the 1971 Census the percentage of urban non-workers in the State of Assam was 79 and the all-India percentage was 71. Thirty-three per cent of the persons covered by the survey were engaged in trade and commerce, Government service or in other services sector. Thus, apart from trade and commerce, the principal occupation of every fourth person was service, either Government service or public administration or in other services sector. A very negligible number of persons (i.e. 0.125 per cent) were reported to be having a subsidiary occupation.

(ii) *Activity status and duration of work.*—As regards the activity status, the study revealed that about 18.39 per cent were totally unemployed, 17.64 per cent gainfully employed unpaid family workers, 7.80 per cent self-employed and 14.42 per cent employees. The study further revealed that about three per cent of the gainfully employed persons and about two per cent of self-employed categories obtained employment during the preceding one year indicating thereby that there had been hardly any substantial increase in employment during 1971.

(iii) *The unemployed.*—The intensity of unemployment and its adverse socio-economic effects should, strictly speaking, be gauged not by the number of the unemployed but by the period of their unemployment. The study revealed that among the unemployed, 89.35 per cent were unemployed for more than one year and the remaining 10.65 per cent had been unemployed for periods varying from one week to one year. Taking the working age group as 15-59 years, it was observed that 17.34 per cent of the unemployed belonged to this age-group while the percentage of unemployed persons in the working age group to the total number of persons in that age-group was 5.64 per cent. The corresponding percentages in respect of males and females were 6.82 and 4.28. The percentage distribution of unemployed in the age-groups 15-19 and 20-24, was 50.34 and 31.07 respectively. These age-groups would, by and large, comprise the student—unemployed.

Barely 34.58 per cent of the total number of unemployed persons had registered themselves with the employment exchanges. The percentage of unemployed males and females registered with the employment exchanges was 35.64 and 15.98 respectively. Thus about 84.02 per cent of the female unemployed and 64.36 per cent of the male unemployed were not covered by the registration statistics of the employment exchanges. Among

professionally and technically qualified unemployed persons, 51 per cent were registered with the employment exchanges. The registration percentage in respect of the untrained and unskilled unemployed persons was 22.25 per cent.

About 90 per cent of the unemployed persons belonged to the households having an annual income of Rs. 9,000 or below. Unemployment among the lowest income group households—Rs. 3,000 and below was 30.27 per cent while it was 41.33 per cent and 18.51 per cent in respect of the income group Rs. 3001—Rs. 6000 and Rs. 6001—Rs. 9000 respectively. Thus, the incidence of unemployment was not confined to the households falling in the lowest income group alone. About 32 per cent of the total unemployed persons were students which seems to indicate a high percentage of the educated unemployed.

(b) Rural (confined to six villages only)

(i) *Social background, economic status and occupational distribution.*—The study showed that in the six villages covered by the survey, literacy among the population varied from 22 to 65 per cent. The percentage of non-workers in these villages ranged from 52 per cent to 66 per cent. This was mainly due to the large percentage of dependents among the population. The occupational distribution of the population showed that about 29 to 40 per cent of the population was engaged in agriculture and allied occupations. These people mostly consisted of those engaged in crop cultivation, animal husbandry, fishing, hunting, plantation and orchards, and forestry. There were no substantial activities in household and cottage industry as principal occupation; however, this sector occupied an important place as a subsidiary occupation. The percentage of persons who reported 'household and cottage industry' as their subsidiary occupation varied from 3 to 60. In one of the villages surveyed not a single person reported 'household and cottage industry' as its subsidiary occupation.

(ii) *Land utilisation farm size and cropping patterns.*—The study revealed that in four out of six villages, there existed fallow land which can be brought under cultivation by suitable improvements and measures. The percentage of the permanent fallow land ranged from 0.4 per cent to about 3.1 per cent. With regard to the land utilisation, the study revealed a more or less similar pattern where 83 to 94 per cent of the total village land was put to cultivation. However, the per capita availability of cultivable land varied from 0.37 to 0.65 acres. Even this upper limit was much below the corresponding figure for the country as a whole. The average size of farm holdings in these villages ranged from 2.76 to 4.64 acres, and this would show that the average size of holdings in rural areas of Assam was about one-fourth of what it is in Punjab, Haryana and Rajasthan. This incidentally lends support to the view that in Assam cultivation is generally done with holdings of small size. The data on the cropping pattern reveal that in 1971 more than 95 per cent of the total land under cultivation was allotted for paddy cultivation in which the "Sali" variety of paddy was the dominant crop. The number of workers employed per acre in the six villages surveyed in connection with this study varied from 0.656 to 1.265.

(iii) *Activity status and duration of work.*—The average percentage of the labour force was of the order of 52.16 per cent in the six villages surveyed. Ignoring the population outside the labour force, the

surplus manpower, i.e. totally unemployed, as percentage of the labour force varied from 8.46 to 32.85 per cent. It was also observed that in five out of six villages surveyed, about 54 to 78 per cent of the male members of a family were employed for durations ranging from 1 to 9 months. Among the hired workers 24 per cent were permanently hired for 10-12 months and 76 per cent hired casually for periods ranging from 1 to 6 months.

(iv) *The rural unemployed.*—Out of the total number of persons in the age group 15-59 years, 18.15 per cent were unemployed. Among the unemployed about 62 per cent were males and 38 per cent females. The percentage of unemployed males to the total males in the above stated age group was 20.68 per cent. Corresponding figures for the unemployed females was 15.13. The survey also revealed that 73.82 per cent of the unemployed were, by and large, in the educational levels ranging from primary to matriculation. Further among the unemployed 31.91 per cent were unemployed for more than a year and about 68 per cent were unemployed for durations ranging from 1 to 9 months. On an average 36.36 per cent of the unemployed were without jobs for the last 7 to 9 months.

(v) *Agricultural operations and rural employment and unemployment.*—On an average the total duration of agricultural operations was about 275 days. The number of workers employed during sowing, planting and transplanting seasons was generally higher by an average of about 43.98 per cent than that of workers employed for the farm clearing, ploughing, harrowing etc. group of operations. Likewise, the number of workers employed for the harvesting group of operations is generally higher by an average of about 27.25 per cent than the requirement of workers for the sowing, planting and transplanting group of operations. This shows that during an agricultural cycle the requirements of workers on farm may vary from 100 to 183 i.e., by about 82.59 per cent.

IV—Report of the study on impact of minor irrigation and rural electrification on employment etc. by the Administrative Staff College of India, Hyderabad

Objective

The main purpose of this study was to examine the effects of electrification and minor irrigation on rural unemployment in the regions concerned. The study also proposed to throw light on the changes which had taken place as a result of rural electrification and minor irrigation in the cropping pattern of the regions concerned, in the setting up of new agro-based industries, in technological developments in agriculture itself, as also, the shift in the pattern of employment from on-farm to off-farm operations. Thus the objective of the study was not so much the estimation of the direct employment generated through the construction minor irrigation works such as minor tanks, wells, etc. or the installation of electrical equipment in rural areas. It was intended to quantify the changes of various types arising out of minor irrigation and rural electrification and to measure them through the change in cropping pattern, double cropping area, consumption habits of the people and consequently on employment. This type of information could not be readily available from routine statistics.

Design of the study

Employment and levels of living in rural areas are sensitive to or are influenced by a large number of factors, like land per person, total irrigation

facilities, cropping pattern, availability of raw materials for various other activities, mechanical equipment, savings potential and propensity to save, availability of credit various types of Government outlays, proximity to urban centres, education and skills, etc. Minor irrigation and electrification are two of the principal factors contributing to the development of any area. The basic issue of design, therefore, was the problem as to how to isolate the effects of these two from those of other factors. An attempt was, therefore, made to base the study on a selection of villages of households which were homogeneous in respect of other variables but differed in respect of the presence or level of provision of minor irrigation and/or electrification. In actual practice, however, this ideal approach had to be sacrificed for something more practicable in the field. Another important point which needs to be noted is that the purpose of the study was not to obtain reliable estimates either for the country as a whole or for a particular state or even for a district or a block. Therefore, the generalisation of these results in quantitative terms is subject to limitations.

Taking into consideration the crop patterns in different regions of the country and the availability of time and resources in three states, namely, Andhra Pradesh, Uttar Pradesh and West Bengal—each representing a distinct region—were selected. For further selection of districts within each of these states consideration was given to the experience of these districts where minor irrigation and rural electrification were made available in large doses in the recent past. Therefore, one district from each of these states was selected where absolute change during 1965-66 to 1970-71 in minor irrigation in acres and in the number of electric service connections were the largest. To minimise the role of other factors and to eliminate short-term changes, three years' averages in acreage in irrigation and electric service connections were taken. The districts selected were Chittur in Andhra Pradesh, Meerut in Uttar Pradesh and 24-Parganas in West Bengal. The next stage of sampling was at the level of the taluk and out of each of the selected districts, a taluk was selected on similar criteria. This procedure led to the selection of Puttur taluk from Chittur district of Andhra Pradesh, Hapur tehsil from Meerut district of Uttar Pradesh and Deganga taluk from 24-Parganas district of West Bengal. The next stage of sample selection involved the selection of villages. In order to ensure the homogeneity of selected villages in other important respects, the following items were considered.

- (i) Standards of land acreage per household.
- (ii) Occupational pattern as between cultivators and non-cultivators.
- (iii) Soil conditions.
- (iv) Mechanisation in agriculture, i.e., the type of agricultural implements used.
- (v) Irrigation by sources other than minor irrigation.

The selected villages were sub-divided into five categories:—

- (i) Having the least addition of minor irrigation and electrification (L).
- (ii) Having addition in minor irrigation only (I).
- (iii) Having addition in electrification only (E).
- (iv) Having addition in minor irrigation as well as electrification (I.E.).

From each of the above four groups of villages selection was made in such a way that the total sample came to four to six villages. As a result of this selection, the total sample for the study consisted of four villages from Andhra Pradesh, six villages from Uttar Pradesh and six villages from West Bengal. At the village level, the data collected included those of population, land utilisation, irrigation, land values, cropping pattern and yields, electrification, credit, wages, agricultural machinery, village industries, etc. In order to identify the effect of the two infra-structural facilities more clearly, within the villages households were selected after stratifying the households into two distinct categories of cultivator households and non-cultivator households; cultivator households were divided into three distinct categories of owner cultivators, tenant cultivators and mixed farmers, each further classified on the basis of size of the holding and irrigation type. The size of the holdings taken for this purpose included 0 to 5 acres, 5 to 10 acres and more than 10 acres. The type of irrigation facility considered for this purpose included canal, minor irrigation, etc. The non-cultivator households were sub-classified as agricultural labourers' households, other labourers' households and service households.

As there was very little prior information to go by for determining the sample size, the percentages were based on intelligent guess. The percentages of households selected from each category varied with the size of the category in the village. The smaller the size of the category, the larger was the percentage of households included in the sample. The percentage varied from 2% to 50% mainly to ensure, at least 5 households of each category.

Main findings

1. Land utilisation

There is a close relationship between irrigation facilities and area cultivated more than once. In the villages having substantial irrigation facilities as reflected in the acreage under irrigation, the double cropped area is also more than it is in the villages having no or minimum irrigation facilities. Electrification does not have any significant impact on the acreage of double cropped area unless electrification is utilised for providing additional irrigation facilities, such as, through tube wells. This fact is evident from the data in the table below:—

Percentage of irrigated area and double cropped area to gross cultivated area

Region	Andhra Pradesh		Uttar Pradesh		West Bengal		
	Irrigated area	Area cultivated more than once	Irrigated area	Double cropped area	Irrigated area	Double cropped area	
	1	2	3	4	5	6	7
IE	54.00	27.00	98.08	56.07	24.05	48.74	
IE(1)			97.33	76.59	80.40	73.96	
IE(2)			91.38	58.09	58.18	33.33	
I	63.00	58.00	42.67	52.11	71.66	83.33	
E	37.00	21.00	97.66	64.57	49.27	75.70	
L	38.00	8.00	84.13	43.45	84.21	62.50	

From the household schedules, too, it is found that in Andhra Pradesh among the cultivators, irrespective of the size of the land holding, the gross cultivated area was greater where both irrigation and electricity were available. The small farmers, because of electrification, had 50% more gross cultivated area followed by 25% in the case of large farmers, but the percentage of double cropped area as a percentage of gross area was generally larger among the small farmers with EI than among those farmers having electrification alone. The percentage of double cropped area was not the highest either for small cultivators, or large cultivators. Middle farmers appeared to have the highest percentage of double cropped area. Cultivators in the village not having irrigation and electrification facilities did not have any double cropping area in their farms.

In Uttar Pradesh electricity led to more irrigation and in all the surveyed villages the gross cultivated area for all classes of cultivators was higher where they had electric supply in addition to irrigation facilities. The percentage of double cropped area was highest in the case of small farmers and lowest for big farmers because of the tube well irrigation in this state.

The data pertaining to West Bengal, however, do not present a clear picture. The relation between double cropped area and the irrigation was not strong. There were cases where substantial double cropping was noticed with limited facilities. This appears to be due to rainfall, soil and climatic factors. The small farmers have benefitted from irrigation and put more area under a second crop.

2. Cropping pattern

In Andhra Pradesh, the principle crops of the sample villages are Paddy, Groundnut, Rabi and Bajra. The presence of irrigation and electrification led to a larger proportion of the cultivated area being under paddy. The yield per acre of higher yielding variety was as high as 30 quintals per acre in IE village whereas it was only 22.23 quintals in L villages. Bajra and Rabi showed similar pattern. However, in L villages groundnut yield was higher. An interesting feature noticed was diversification among the large farmers.

In Uttar Pradesh villages, paddy, sugarcane and maize are the principal kharif crops and wheat the major rabi crop. Generally, irrigation and electrification facilities appear to have caused a change in the cropping pattern in favour of sugarcane and paddy against wheat. The village with least of these facilities had high proportion of its acreage under wheat and less under the others of the above said crops. The yield of sugarcane in IE village was higher around 200 quintals as compared to 150 quintals in the L village. In almost all the villages of U.P. sugarcane cultivation was less on small farms. They grew wheat on more and more area with irrigation, HYV variety of wheat and sugarcane was popular. Electrification had made some impact on the yield of maize alone. In West Bengal, paddy, jute and wheat are the main crops of Kharif, summer and rabi seasons. The data do not evince any significant effect of the irrigation or electrification on the cropping pattern. However, the yield rates differ significantly. HYV paddy yield in IE village was 15 to 20 quintals per acre and it went down in the villages with lesser of these facilities. Jute and wheat also showed similar trend. The yield rate of jute in IE villages was 10 quintals per acre whereas

it was only 7 quintals in L villages. The yield rate of wheat also got reduced from 12 in IE village to 5 quintals in L village. Small cultivators in West Bengal have taken to cultivation of wheat. Jute is being sown more and more in the villages where electrification is found alongwith irrigation. The relevant data are given in the table below.

Cropping pattern in the selected villages

State	Village	Percentage of total area	
		Paddy	Ground-nut
1	2	3	4
Andhra Pradesh	1 IE	36.2	35.5
	2 I	26.4	50.1
	3 E	34.7	53.0
	4 L	22.00	59.0
		Percentage of total area	
		Paddy	Maize Sugar-cane Wheat
Uttar Pradesh	1 IE	3.8	13.3 22.1 38.9
	2 IE(1)	3.8	15.2 23.5 35.5
	3 IE(2)	..	13.8 20.4 36.9
	4 I	..	14.5 21.6 44.1
	5 E	3.5	12.6 25.4 34.0
	6 L	0.1	6.6 14.0 52.7
		Paddy	Jute Wheat
West Bengal	1 IE	38.60	45.00 7.10
	2 IE(1)	38.00	14.00 10.00
	3 IE(2)	63.80	10.91 16.36
	4 I	37.90	4.60 7.60
	5 E	41.10	9.10 6.90
	6 L	47.10	10.80 15.71

3. Agricultural equipment and livestock

In Andhra Pradesh IE village had most of the equipment and L villages least. However, their number was very small and insignificant. Mostly traditional tools were being used. Livestock possession per household was substantial in the villages with least facilities of electrification and irrigation in comparison to the villages of the other categories. Within the villages the number of cattle increased with the size of the holding.

In the selected villages of Uttar Pradesh there were more tractors and thrashers and their number per household were related to the size of holdings. The households having electrification and irrigation facilities had more of them. However, the data

do not reveal any pattern. The possession of livestock too does not appear to have any relationship with irrigation or electrification.

In West Bengal, there were no tractors. The other equipments like thrashers and sprayers were possessed by households having larger holdings. Possession of livestock, too had no connection with irrigation or electrification.

4. Use of fertilizers, pesticides and HYV seeds.

The table below gives the number and percentage of cultivators using these inputs.

Distribution of cultivators using fertilizers, pesticides and seeds of high yielding varieties

Village	No. of cultivators in the sample	Percentage of cultivators using		
		High yielding variety	Fertilizers	Pesticides
1	2	3	4	5
<i>Andhra Pradesh</i>				
1. EI	194	62.89	74.23	73.20
2. I	356	7.03	98.31	84.55
3. E	297	35.35	36.03	36.03
4. L	299	21.07	52.51	16.05
<i>Uttar Pradesh</i>				
1. EI	188	85.11	85.11	35.64
2. EI—(1)	144	95.83	95.83	63.89
3. EI—(2)	124	100.00	100.00	100.00
4. I	122	100.00	100.00	100.00
5. E	180	97.22	96.67	68.33
6. L	108	76.85	75.00	22.22
<i>West Bengal</i>				
1. EI	187	29.95	57.22	43.32
2. EI (1)	39	100.00	100.00	100.00
3. EI (2)	146	41.10	43.84	36.99
4. I	69	36.23	40.58	39.13
5. E	33	10.84	23.25	9.64
6. L	57	64.91	64.91	64.9

Both in Andhra Pradesh and Uttar Pradesh, on an average, the percentage of cultivators using these facilities was found to be highest in the electrified villages with irrigation facilities and the lowest in the villages where irrigation and electrification were the minimum. The data in respect of West Bengal, however, do not present any clear picture.

5. Employment

The table below gives the mandays worked by workers in a family during an year in the different categories of the sample villages.

*Distribution of the family labour mandays
by the type of employment*

Village	Workers Per house- hold	Mandays worked per house hold during the year	Percentage of mandays worked in		
			Own farm	Other's farm	Services
1	2	3	4	5	6
<i>Andhra Pradesh</i>					
IE . .	1.79	455.80	41.87	22.89	33.73
I . .	1.90	473.10	42.30	28.90	28.80
E . .	2.41	570.00	47.70	25.34	26.96
L . .	2.34	346.30	21.25	31.25	47.25
<i>Uttar Pradesh</i>					
IE . .	1.67	472.32	58.40	9.00	27.50
IE—(1)	1.58	674.00	72.52	3.30	23.75
IE—(2)	2.29	629.63	76.62	4.40	16.10
I . .	1.57	726.80	75.50	9.70	14.80
E . .	1.71	651.00	76.44	1.00	20.60
L . .	1.56	505.80	43.00	4.00	41.90
<i>West Bengal</i>					
IE . .	1.33	325.00	35.00	14.10	46.00
IE—(1)	1.18	368.00	36.30	20.89	32.57
IE—(2)	1.32	423.00	38.70	11.23	47.67
I . .	1.23	486.27	50.70	8.00	24.22
E . .	1.25	442.00	40.00	13.00	24.00
L . .	1.26	443.00	46.30	21.40	32.30

Note.—Services include non-agricultural services like those of black-smith, cobblers, etc. The remaining percentage of mandays are distributed to Agro and Household Industries. IE indicates a village where changes in minor irrigation and electrification were moderate.

ANDHRA PRADESH

It will be observed from the table above that family employment in I villages was the highest being 473.10 man-days in an year and lowest in L villages being 346.30 man-days. Data in respect of Andhra Pradesh villages indicate that irrigation adds to the number of days worked per able-bodied person in each class of farmers. Among the small farmers it added 10 to 48 days work per worker in a year. Electrification had significant impact on the working days of small farmers, but on medium and large farmers, it was not very significant. In all the villages the man-days worked per person were higher in case of the middle farmers compared with the figures in respect of large and small farmers. The man-days worked in one's own farm were highest in the middle ranges and lowest in the case of small farmers who spent most of their spare time in working on other's farm. In case of agricultural labourers and artisan also the impact of irrigation and electrification was evident. The working days of an agricultural labour in IE village were 180 while in L village they were only 137. In case of artisan, the working days were highest being 315 in I village, near about 241 days in IE villages, 243

days in E village but only 116 days in L village. The variation was not so significant in case of labour rendering services.

It is noticed that of the total labour requirements hired labour contribution increases with the size of the farm. Generally with an increase in the irrigation and electrification, total farm employment increases in a substantial way. The share of hired labour goes up with electrification in small size farms too.

UTTAR PRADESH

Family employment was found to be highest in I village being 726.80 man-days in a year. It was lowest being 472.32 in a year in the IE village. It is not possible to ascribe this difference to any specific factor. Electrification has not resulted in any significant change in the man-days worked per person in any of the classes of workers. Similarly, man-days worked by cultivators of holdings of varying sizes do not materially change. However, overall employment appears to be highest in IE village and I and E villages compared to the villages where these facilities were not available on the same scale. The percentage of time spent on own farm was higher in E and I villages than in the villages of the other two classes. Electrification or irrigation does not appear to be making any discernible difference in the working days of agricultural labour and non-agricultural workers. The total employment in larger farms was higher than among small farms and the total man-days worked in IE farms was higher than that in those farms having irrigation alone. Percentage share of hired labour increased with the size of the farm as well as with electrification.

WEST BENGAL

In West Bengal, the man-days worked per family in the different categories of sample villages do not indicate any trend. The effect of irrigation or electrification is not evident. The number of days worked per family was lowest in case of IE villages and it was highest in the L villages.

The data on the man-days worked by different classes of workers also do not provide any clear picture.

The study, however, brings out that in almost all cases irrigation provided extra employment.

6. Multiple regression results

The study has also attempted to have a quantitative estimate of the relationship between the inputs especially minor irrigation and electrification and their influence on employment. The analysis reveals that by increasing an acre of land under their minor irrigation it increases employment for one person by about two months. Increased credit facilities also increase employment; for every additional credit of 9 rupees employment increases by one man day. Electrification, area under minor irrigation and credit are closely related. In Andhra villages irrigation appeared to be the limiting factor, whereas in U.P. and West Bengal the availability of electricity influences the area under minor irrigation.

ANDHRA PRADESH

In Andhra Pradesh, primary determinants of employment were area under minor irrigation and to a smaller extent credit. In larger farm sizes

employment increased as a result of increased water supply and more intensive cultivation. However, the relation of employment with electrification was very weak.

Extent of mechanization in Andhra Pradesh was found to be very limited. Hence on conclusive evidence was available about its effect on employment.

Availability of credit has a significant influence on employment. Availability of credit is, however primarily affected by the gross irrigated areas, cropped area and mechanization.

Increase in minor irrigation facilities results in increased family employment as well as employment of hired labour, more so in case of the latter.

UTTAR PRADESH

The primary determinants of increase in employment in U.P. villages are area under minor irrigation and the availability of credit. The region being more mechanized, the employment potential of irrigated land is only 35 man-days per acre. Electrification increases minor irrigation facilities and intensive cultivation and consequently generates more employment.

The impact of mechanisation of total employment is negative. However, it has significant and positive influence on family employment.

Increase in credit increases the purchase of electric pump sets and influences gross cropped area significantly.

WEST BENGAL

Minor irrigation has a significant impact on employment as it promotes intensive cultivation. The extent of mechanisation being small, no conclusive evidence about its impact on employment was available.

The study concludes that area under minor irrigation has a significant impact on employment. It increases gross cropped area, improves cropping pattern and brings better resources to the farmers resulting into increase in the volume of employment.

Electrification has only negligible impact on employment. It is not an altogether independent variable. Credit has a positive but only small extent of influence on employment. Increased credit facilities do increase employment.

7. Occupational pattern

The percentage distribution of working population by occupation in the selected villages of the three states is given below.

Percentage distribution of households by occupation

Region	Andhra Pradesh			Uttar Pradesh			West Bengal		
	Culti-vators	Agricultural labour	Others	Culti-vators	Agricultural labour	Others	Culti-vators	Agricultural labour	Others
1	2	3	4	5	6	7	8	9	10
IE . .	45.2	43.8	10.0	43.5	14.4	42.1	32.92	49.64	17.44
IE (1) . .	..	..	..	41.6	26.9	31.5	18.22	29.83	57.95
IE (2) . .	..	..	..	42.5	31.0	26.5	21.28	23.32	55.40
I . .	53.9	34.8	11.4	44.0	39.0	17.0	34.67	45.72	19.59
E . .	54.1	54.1	8.6	51.1	21.1	27.8	36.72	37.61	25.67
L . .	49.6	33.2	17.2	44.6	16.5	38.9	48.71	47.86	3.43

The data do not reveal any significant effect of electrification and irrigation on the occupational distribution.

8. Wage rates

Data on the wage rates indicate that electrification as well as irrigation do not have any relationship with the wage rates.

9. Living standards

The study included enquiry about the use of durable goods and the eating habits. It was found that households having higher size of holdings, irrigated lands and electrification had more of durable goods than the rest. Eating habits, too revealed the same pattern. In the villages of Uttar Pradesh and West Bengal, the number of these goods was significantly higher among service and artisan households as compared with intermediate size cultivators.

V—An appraisal of schemes of rural employment undertaken by the Administrative Staff College of India, Hyderabad

Objectives

The main objective of the study was to make a critical appraisal of such rural employment schemes as Small Farmers Development Agency (SFDA), Marginal Farmers and Agricultural Labourers (MFAL), Rural Works Programmes for Chronically Drought Affected Areas (DPAP) and Crash Schemes for Rural Employment (CSRE). It *inter alia* involved the examination and evaluation of the following aspects:—

- (i) Whether the schemes are really employment oriented and whether they would be self generating employment in the long term;

- (ii) whether the schemes as conceived and formulated and to be implemented separately would be more efficient in terms of generating extra employment than the alternative of an integrated programme for selected districts; and
- (iii) the likely effects on the wage rate and the structure of unemployment.

Scope and coverage

Since most of the schemes were put into operation only recently, it was not considered appropriate to make an objective evaluation of these schemes based on field data. The other alternative for assessing these schemes and their impact on rural employment was to depend on the views of the officials, the non-officials and the potential and actual beneficiaries. The objectives of the evaluation of the schemes included :—

- (i) Whether these schemes were employment oriented and would ensure steady employment in the long run;
- (ii) whether these schemes were conceived within a larger framework of development of the selected districts; and
- (iii) whether they contributed to the raising of living standards of the rural population.

The study was located in Andhra Pradesh, where CSRE was being implemented in all the nine districts, DPAP in five districts, SFDA in three districts and MFAL in two districts. In selecting the areas for the study the preponderance of these schemes, the expenditure on these schemes and the co-efficient of variation of rainfall were taken into consideration. The selected areas included the Cuddapah taluq and parts of Nalgonda and Ramannapat taluqs of Cuddapah and Nalgonda districts respectively. Six villages in each of the selected taluqs, where the number of activities under the small and marginal farmers programmes and the number of beneficiaries were largest, were selected.

Sampling design

Within each of the selected villages the study was restricted to only those households which were identified by the official agencies to be eligible for benefits under any of the four schemes. The number of identified and eligible households under SFDA and MFAL selected for detailed study in the two districts was as follows:—

Villages	Indenti- fied house- holds	House- holds bene- fitted	Sample selected from	
			Bene- fitted house- holds	Non bene- fitted house- holds
Nalgonda villages	1094	327	110 (33.6)	35 (4.5)
Cuddapah villages	907	248	83 (33.5)	21 (3.2)

Figures within brackets indicate the percentage.

The details of the rural employment schemes, including their coverage, financial outlay and physical achievements were obtained from official records at the district level; while data on the characteristics of the population, land utilisation, irrigation, cropping pattern, agricultural equipment, availability of infrastructural facilities such as co-operative societies land mortgage bank etc., working of the credit institutions, and the scheme-wise number of beneficiaries under different activities and also works undertaken in DPAP, CSRE were obtained by means of a schedule at the village level.

The 1971 Census data regarding occupation distribution of the households in the selected villages as well as the information collected during the course of the study brought out on the following points :—

- (i) The proportions of cultivators and agricultural labourers in the selected villages were less than the corresponding percentages for state. The selected villages in Nalgonda district had a smaller proportion of agricultural labourers (33.1 per cent) in the total labour force as compared to the selected villages in Cuddapah district (51.7 per cent). The corresponding proportions in the case of cultivators were 34.2 and 26.8 per cent respectively.
- (ii) The percentage of identified small and marginal farmer households varied from 18 to 87 in the selected villages. However, the officially identified households of small and marginal farmers were 50 as against 228 observed on actual enumeration.
- (iii) The percentage of net cultivated area in the selected villages of Nalgonda taluq (66.9) was higher than the state average (41.6) while in the case of Cuddapah taluq (15.0) it was significantly below the state average. Similarly, the wet land as a percentage of cultivated area was significantly higher in Nalgonda taluq (8.5) as compared to Cuddapah taluq (0.9). This was mainly due to the fact that the selected villages in the Cuddapah taluq had an extensive forest area i.e. 61.2% of the total area under them. Thus, the percentage of cultivators, land utilisation and irrigated cropped areas were higher in the villages of Nalgonda taluq as compared to villages in Cuddapah taluq.
- (iv) The prevalence of infrastructural facilities were more or less uniform in Cuddapah villages while in Nalgonda villages they varied widely.

Main findings

1. Plans and performance

SFDA—a pre-requisite for the formulation and implementation of the various development schemes for small farmers—was set up in November, 1970 in Nalgonda and in February, 1971 in Cuddapah district. The agency in Nalgonda district had an annual budget of Rs. 50 lakhs for both the schemes i.e. SFDA and MFAL to cover 50 thousand small farmers and 20 thousand marginal farmers and agricultural labourers by the end of the last (fourth) year while in Cuddapah district, the SFDA had an annual budget of Rs. 30 lakhs to cover 50 thousand small farmers during the same period.

The achievements in regard to minor irrigation activities, namely, construction of new wells and repairs of old wells, installation of electric or oil pump-sets, which accounted for the largest allocation, was much less than the corresponding targets, as given below :—

Item	Target	Achievement (upto November, 1972)	Percentage (Col.(3) to Col.(2))
1	2	3	4
New wells	3,600	483	13.4
Repair to old wells	4,000	435	10.9
Pump-sets	10,600	342	3.23

Judging the progress of the schemes under SFDA and MFAL in the light of the proposed financial outlay and the actual expenditure incurred till the end of November, 1972 which incidently cover nearly 2/3rd of the period for which these two schemes were originally formulated, it appeared that the financial outlay proposed under the two schemes were far inadequate in relation to the actual requirements. Like-wise the actual achievement under crop loans, land development, dairy, other animal husbandry schemes, rural artisan were also not very impressive.

Rural works programmes in drought prone areas (Cuddapah District)

In pursuance of the broad guidelines, issued by the Ministry of Food and Agriculture, under the schemes, the state government formulated a four year Master Plan ending with March, 1974 for the

Cuddapah district. The total outlay of Rs. 331 lakhs which was subsequently reduced to Rs. 216 lakhs was envisaged for the four year period. During the first three years ending 1972-73, about Rs. 212 lakhs were released and the actual expenditure upto September, 1972 was 120 lakhs or 61 per cent. The expenditure incurred on different types of activities was not uniform; it varied from 30 per cent in the case of minor irrigation (PWD) to 78 per cent in the case of roads (P.R.). The total employment generated over a period of two and a half years was about 43 lakh man-days i.e. roughly 17 lakh man-days per year or in other words the employment was offered to little less than six thousand workers for three hundred days in a year.

Crash schemes for rural employment

Following the instructions issued by the Government, the Panchayat Raj Institutions which were entrusted with the responsibility of selecting and implementing the schemes made a provision of Rs. 30 lakhs each year for the three years from 1971-72 to 1973-74. 64 per cent of the proposed allocation was earmarked for road construction, 11 per cent each for community irrigation wells and housing, 10 per cent for constructing of class rooms for primary schools, etc. In Nalgonda district alone, 41 rural works proposed, included 34 minor irrigation works and two hundred community irrigation wells, 75 primary schools, buildings, 34 residential houses and a godown. In the case of Cuddapah, 35 works at the total cost of Rs. 26 lakhs were sanctioned and of this eleven works at the cost of Rs. 19 lakhs were completed till the end of August, 1972. During the first year the expenditure incurred in Nalgonda district was only a fraction of the total amount released whereas in Cuddapah almost all the amount earmarked for rural works programme was spent. The physical achievements did not correspond to the financial outlay. In Cuddapah not even a single minor irrigation work was completed and even in Nalgonda the number of tanks completed were very small, and no new well was taken up under the programme. However, in road construction more than 60 per cent of the targets were achieved in both the districts. The details of expenditure and achievements are as follows :—

Release and expenditure details upto March, 1972

Activity	(Rs. in lakhs)			
	Nalgonda District		Cuddapah District	
	Amount released	Actual expenditure	Amounts released	Actual expenditure
1	2	3	4	5
Minor irrigation works	2.95	0.74	1.05	2.02
Road works	13.53	5.54	14.65	13.45
TOTAL	16.48	6.28	15.70	15.47

Physical targets and achievements upto March, 1973

Item	Nalgonda District		Cuddapah District	
	Target	Achievement	Target	Achievement
	2	3	4	5
1. Employment (in lakhs man-days)				
(a) M. I. Works	0.72	0.22	0.34	0.59
(b) Road works	2.88	2.16	3.92	4.06
2. Length of Roads (in kms.)				
(a) Improvements	101	60.5	255	116.7
(b) Formation	—	13		
3. Minor irrigation works (in numbers)				
(a) Tanks	30	8	—	—
(b) Wells	52	—	220	—

2. Impact of the schemes

The information collected from the selected households during the course of the study showed that in the case of SFDA in the selected villages of Nalgonda district the amount of credit extended per household ranged from Rs. 2,760 for well repairs and electric pumps to Rs. 389 for crop loans. Almost a similar pattern was observed in the case of MFAL, except that the highest credit extended to a household was Rs. 2,500 for electric motors and the smallest Rs. 274 for crop loans. The corresponding figures ranged from Rs. 3770 for well sinking to Rs. 750 for bullocks in the case of Cuddapah villages. Among the inputs, fertilizers were the only components which were supplied to the farmers in substantial quantities along with crop loans. Mostly the crop loans were supplied by the co-operatives, credit for well sinking and pumpsets by Land mortgage Bank and dairy activities by commercial banks.

Generally, the households which received loan for

one of the activities was not considered for any credit for other related agricultural activities. Out of the total 438 farmers identified under SFDA in Nalgonda villages, only 39 per cent derived benefit in the form of credit from various institutions. Of these 53 per cent obtained loans from Land Mortgage Banks, 8 per cent from commercial banks and 39 per cent from co-operative institutions. Similarly, under marginal farmers programme, 656 were identified as marginal. Of these 23 per cent were other; the commercial banks advanced loans to 55 per cent of the Land Mortgage Banks extended long-term and medium-term loans to 18 per cent of them. In Cuddapah district of the 907 small and provided with credit facilities of one kind or the marginal farmers identified, only 27 per cent received institutional credit. Of these, a large proportion, 80 per cent received credit facilities from co-operatives. The commercial banks did not evince any interest in any of these programmes.

The amount lent by Land Mortgage Banks for small farmer households on an average was Rs. 2,378 in Cuddapah and Rs. 2,013 in Nalgonda. The corresponding amounts lent to marginal farmers were

Rs. 1,500 and Rs. 1,504 respectively. The credit advanced by the co-operatives ranged from Rs. 100 to Rs. 457, for fodder or for other inputs. Here also, the marginal farmers received less than the small farmers and in Cuddapah district, the average lending was higher than in Nalgonda.

The utilization of credit, on the whole, seemed to be satisfactory. Over 90 per cent of the credit extended to farmers by different financial institutions was put to productive use. The diversion of credits from the intended purposes was common in the case of crop loans; however, a major part of the diverted funds was used for productive purposes such as purchase of bullocks etc., for non-productive purposes too the amount utilised from crop loans was substantial. In Nalgonda, however, a substantial amount intended for well repairs was used for consumption purposes.

As regards employment, the study revealed that the additional employment credit per household among the small farmer families which derived any benefit under the scheme was about 5 per cent (in Nalgonda) and 20 per cent (in Cuddapah). The additional employment per worker was, however, around 16 per cent in Nalgonda and 12 per cent in Cuddapah. In Nalgonda the employment per worker among small farmer families which derived any benefit under the scheme varied from 192 man-days in the case of well sinking to 280 man-days in a year in the case of milch cattle. In the case of MFAL scheme the employment per worker was highest among the families which received crop loans for milch cattle. In Cuddapah, employment per worker varied between 210 man-days in the case small farmer families that could secure loans for purpose of bullock to 285 man-days in the case of those families which could borrow for the installation of electric motors.

The data collected on land utilisation, particularly those related to irrigated land showed that the beneficiaries as owners or cultivators generally had more irrigated land than the non-beneficiaries under the scheme. This was true both for small and marginal

farmers in Nalgonda district. The average size of the operational holding, both irrigated and non-irrigated, for the small farmers in Nalgonda district was about 7.1 acres whereas the ownership holding was only 6.4 acres; the corresponding sizes in Cuddapah district were 6.2 and 6.0 acres respectively. In the case of marginal farmers in Nalgonda, the size of the operational holding including irrigated and non-irrigated areas was 3.0 acres while the ownership holding was 2.7 acres. Corresponding figures for Cuddapah district were 3.3 acres and 3.1 acres.

Similarly, the study showed that in respect of crop yield per acre; use of agricultural implements, rearing of livestock, consumption habits, etc. the household benefitted were better than those which did not receive any assistance under these programmes. The study also brought out that among the small and marginal farmers the benefit went to those families which already had a lead within the group.

Rural works programmes for chronically drought affected areas (DPAP)

These programmes were in operation only in Cuddapah district and four out of the six villages selected, were covered. In some of the villages the works were completed and in others they were in operation. Most of the labourers employed on soil conservation programmes, roads and minor irrigation works were from outside the selected villages.

Crash scheme for rural employment (CSRE)

These schemes were in operation in three of the selected villages of Nalgonda and two of the selected villages of Cuddapah district. The data collected on the basis of household study revealed that the average additional employment provided in each of the villages per worker and per household ranged between 57 mandays to 89 man-days in Nalgonda district while it was around 30 man-days in the villages of Cuddapah district. The additional employment provided per worker by these schemes constituted around 48 per cent in one and about 28 per cent in two villages of Nalgonda, and 6 to 8 per cent in the villages of Cuddapah district. Wages paid under the schemes were invariably higher than the average wage prevailing in the selected villages.

Qualitative impressions

On the basis of the opinion survey undertaken as a part of the study it was observed that most of the village elders were aware of the small and marginal farmers schemes to a greater extent than the CSRE and DPAP schemes. Similarly, with regard to the identification of the deserving families under the four schemes, the opinion of the elders was that quite a large number considered the present system of identification as satisfactory except in respect of labourers for SFDA and DPAP. However, there was a unanimity among the village elders regarding the undue delays in the identification of the schemes, their formulation, scrutiny, sanction of loans, flow of inputs and the functioning of the schemes in general. The quality of the inputs supplied was either fair or good but the assistance and help rendered by the various extension officers were considered as very good. However, the village elders felt that the storage and marketing facilities in Nalgonda were very poor. The elders felt that the impact of rural employment schemes on various items of developments was fair.

Almost all the eligible small and marginal farmers were aware of the SFDA and MFAL programmes in both the districts. This awareness, however, was much less in the case of families which were eligible for employment under CSRE and DPAP. Among small farmers and marginal farmers in the selected villages of Nalgonda district, over 61 per cent were aware that someone was going to identify the small farmers, marginal farmers and agricultural labourers and recommend them for various types of credits. About 38 per cent were also aware of the subsidy content under these programmes. In Cuddapah, the corresponding percentage were 40 and 60 respectively.

In Nalgonda district, 90 per cent of the people were contacted by the SFDA staff along with the block staff and village officials. The Sarpanch played a very minor role in this district. In Cuddapah, the block staff along with Patwari contacted more than 70 per cent of the families. On the whole it appeared that the agency staff together with block staff and Patwari did most of the work in getting in touch with the concerned families. The general feeling in Nalgonda was that credit for obtaining fertilizers, for sinking of wells and for procuring fodder was not inadequate whereas the position in Cuddapah district was the opposite. Most of the recipients of assistance under these schemes felt that the agricultural extension officer (co-operation), and agricultural demonstrators were not at all helpful to them. Twenty seven per cent of the respondents in Nalgonda district, and 36 per cent in Cuddapah district felt that village level workers were helpful. A great majority of farmers felt that both credit and other inputs were received after considerable delay. However, most of them were satisfied with the quality of inputs. A great majority of the respondents in Cuddapah as well as in Nalgonda did not say that they were having any storage or marketing problems for their produce. No serious transport bottlenecks were mentioned by them. About 52 per cent of the identified and eligible households in Nalgonda and 62 per cent in Cuddapah felt that they were getting reasonable prices for their produce. However, a great part of their produce was being sold through the middlemen. The share of the co-operative societies in this respect was very small in both the districts.

A great majority of the farmers and agricultural labourers who derived benefits from these schemes considered the schemes highly useful. To a specific question to the identified households at the time of the survey whether they had derived any benefits, the response was not very favourable. However, a large majority felt that the impact of these schemes on farm output, cropping pattern, irrigated areas, etc. was negligible. Similarly, with regard to another specific query from agricultural labourers and other families whether crash schemes had resulted in any additional employment, higher wage rates and better consumption, a great majority of them felt that the effect of these schemes on wage rates and consumption habits was either fair or negligible. But so far as the impact of employment during the lean season was concerned, specially in Nalgonda district, a large proportion of the households felt that it was either fair or substantial.

Appraisal

Under the Small Farmers Scheme, the coverage of 50 thousand farmers in each district was found to be reasonable. However, the coverage of marginal

farmers was inadequate both in terms of the number of families and acreages. The outlay earmarked for additional employment under the two Employment Schemes for the lowest strata of the rural community was too inadequate. Judged from the expenditure, the performance of SFDA and MFAL agencies was not satisfactory. In physical terms, too, the gap between the achievements and targets was considerable. The reasons for the low performance were inherent, in the manner these schemes were conceived and formulated.

Another difficulty experienced was the identification of the families of a small farmer, marginal farmer and an agricultural labourer superimposed by the difficulty of locating the unemployed in the agricultural labour households; in the absence of any precise and specific criteria. The study showed that in a number of cases, the people were wrongly classified as small farmers or marginal farmers or agricultural labourers. Even the criteria adopted in identifying the eligible households in the two districts were not identical. In Nalgonda, the enumeration of farmers was based on their operational holdings whereas in Cuddapah it was done on the basis of ownership holdings. More or less similar difficulties were experienced in determining the unemployed in the identified households. To sum up, the suggestions offered to make the coverage of these programmes effective and fruitful is that a small owner who wishes to take up farming or wants to continue to farm should be covered by the programmes of the SFDA. In the case of both small and marginal farmers, some measures of consolidation should also be envisaged under this programme so that joint ownership-cum-operational holding could be a viable proposition. For the rural labour, attempts should be made to encourage labour organisations, which take up small works.

In the absence of any detailed survey of the district, an essential pre-requisite for the preparation of a realistic integrated district plan, the programme under the four schemes initiated and implemented were unrelated to the problems peculiar to these two districts.

During the course of the study it was observed that there was no rational distribution of decision taking and responsibilities among the three levels in the hierarchy. Thus, the need to evolve a machinery at the district level to formulate a district plan consistent with the State and the National Plan and also within the resources that are available cannot be gain-said. However, at present, such an institution does not exist in any of the two districts. Detailed investigations or preparation of technical components of the different types of projects relevant to the areas do not appear to have been undertaken or even thought of.

Although there was no intergrated plan as such, the concerned agencies, particularly SFD Agencies in Nalgonda as well as in Cuddapah, published plans of action. The credit requirements in these plans were line estimates; so many rupees per acre as crop loan, so much amount per well and so much for pumpsets. What they failed to note was the peculiarities of individual cases and more than that the physical inputs under each of these activities so that their flow could be planned in advance. Further, they also indulged in ritual exercises of computing the returns on the outlay. In Nalgonda, in particular, detailed exercises relating to crop planning

were undertaken. In all these cases, there was no uniformity in respect of the conceptual framework and no common methods of computing the rate of returns on different schemes was evolved. The approach and methodology adopted in such exercises were so unrealistic that in the case of crop planning exercises they promised a return ranging from 200 to 600 per cent. For a number of other activities such as dairy farming, poultry farming, animal breeding, training of artisans, etc., they did not even attempt to get some meaningful figures. Even where they indulged in this kind arithmetic they did not use the results in determining priorities in the sense the high yield activities receiving greater attention than the others.

In Cuddapah the position was not different. The rural employment scheme did not make any major departure from the conventional programmes of work. In view of the extreme uneven distribution of rain-fall over a number of years, efforts in the direction of more minor irrigation works did not appear at all relevant. The minor irrigation works may be useful as sources of employment during the drought years, unless of course, a lot of water was going waste. Any future programmes in this direction should aim at the adoption of appropriate storage methods, and should ensure a uniform flow of water for cultivation during the lean as well as better years. In the light of the quantities of water which may be made available at a uniform rate for a long period, an appropriate cropping programme has to be formulated. This type of water conservation may mean co-ordinated use of water in minor tanks and wells and increasing the moisture conservancy of the soil. Alternatively, there is need for going for a class of plantations which can survive in the face of such uneven availability of water.

The inability to ensure electric supply even when the sanction was given for electric pump-sets led to frustration in a large number of cases. There was a general feeling of disappointment on account of the failure to give electric connections in Nalgonda district. While extending crop loans the supply of inputs such as fertilizers, seeds, pesticides, etc., were not properly arranged. In the areas of dairy, poultry, sheep breeding etc., inspite of ambitions programmes there was no prior planning to increase the supply of suitable animals and birds either from within the state or from outside the state. Where these animals were provided, there was no assured flow of feed. Similar factors were responsible for their inability to start any programmes for rural artisans. An important component of this co-ordinated planning of flow of inputs is the supply of credit. The primary societies were in a bad shape and no advance action was taken to enable them to undertake the tasks earmarked for them. Commercial banks in both the districts surveyed were not yet ready to involve themselves in a big way in these programmes. On top of all this, very little attention was paid in trying to minimise the procedural work which ordinarily caused considerable delay in extending the loan to the farmers. The question of security which was basic to all the credit programmes designed for the poor and not too prosperous persons was not tackled in advance.

Another important input that is usually ignored in this context is that of training and education for small and marginal farmers and rural labour in various skills that are required for the operation of the schemes. The rural population expressed the

need for such programmes. There was a reference to such training programmes only for artisans but even that never materialised. The agency should launch these training and education programmes not at district or Taluq headquarters but in the villages themselves.

The need for an integrated plan is no less important at the household level. A beneficiary was generally given one type of loan. Implicitly the approach appeared to be of their distribution to meet a large number into the scheme. In most cases the quantum of credit provided bore no relation to the actual needs. The major consequence of this approach was the failure to lay necessary foundations for sustained employment.

At the top of the hierarchy within the state there should be a single department responsible for the supervision, evaluation and implementation of these schemes, instead of two as was the case in Andhra Pradesh. At the district level the Zilla Parishad Institutions were in charge of Drought and Rural Works Programme. The executive officer and the Collector, as the head of the SFD Agency, was responsible for the formulation and implementation of these programmes and most of the field work was being done by the Panchayati Raj extension staff. Most of these extension staff are represented on the Agency but at the same time the Agency itself has started building up its own technical personnel, thus creating in some sense a competing cadre. The Agency was expected to act as a catalyst but whatever they have achieved so far does not prove that they have successfully played this role. The Agency has prepared the plan and endeavoured to assist the farmer in getting credit and other inputs but the achievements in this respect were limited. The present set up also creates some problems of line of command and both the Collector and the Zilla Parishad Chairman in the two districts surveyed were not very much involved in these programmes notwithstanding their close formal association with the Agency. The entire work was entrusted to the Project Officer, and in one of the two districts surveyed the post of the project officer remained vacant for nearly six months.

The general feeling was that there was considerable scope for the extension staff for greater involvement in these activities by frequent visits to the villages and contacts with the farmer. Without this it will be very difficult for the farmer to take to better methods of cultivation. It will be desirable to encourage a new type of extension staff which more or less lives at least for a few years, if not indefinitely, with the rural community. This will enable them not only to render extension services to the neighbouring small and marginal farmers and others but also set an example in improved farming practices.

In the area of works, the execution of works such as, roads, minor tanks etc., were entrusted to the engineers of the Zilla Parishad. In spite of the instructions that most of these works should be carried out departmentally, in most cases contractors were doing this work. On further probing it was understood that the existing financial regulations did not permit smooth departmental execution of these works, hence the presence of contractors. Also the employment figures provided by these agencies were a product of simple arithmetic: the given amount is divided by wage rate to obtain the figure of employment generated.

VI Employment and unemployment in the selected regions of Assam

Scope and coverage

The study was undertaken by the Department of Economics, Gauhati University, during December, 1972 and January, 1973. It covered selected urban blocks in six towns of Kamrup District, namely, Hajo, Rangia, Nalbari, Pathshala, Barpeta and Barpeta Road.

Objectives

- (i) To measure the extent of unemployment.
- (ii) To study the employment pattern.

Sample Design

Two stage sampling design was used. Urban blocks were selected on the basis of the municipal records. In the selected blocks 1402 households in all were listed and stratified in four groups :—

- (i) Households having unemployed persons;
- (ii) households having major share of their income from self-employment in cultivation;
- (iii) households having major share of their income from self-employment in non-agricultural activities; and
- (iv) households having major share of their income from salary or wage paid employment.

Ten per cent of the households from each of these four groups were selected on systematic random sampling basis. The total number of households thus selected was 351 comprising 3110 persons. These households were taken up for in-depth study.

Concepts used

Employment and unemployment was studied with reference to a week as well as one year preceding the date of survey. Persons not having any gainful work during the reference period but who were seeking and/or were available for work were considered to be unemployed. From the tables on age-distribution, it appears that persons aged 15 and above only have been considered for studying employment and 15 to 59 only for unemployment.

A. Household size

In 1,402 households listed in the urban areas selected for survey, a population of 13,355 was found, the average household size being 9.5. In the 341 households selected for in-depth study, 3110 persons were enumerated and according to this the average household size came to 8.9 persons. Among these persons only 594 persons were employed.

Thus the average number of employed persons in a household was 1.7. On the other hand, the number of the unemployed persons per household was approximately 1.0. The average monthly expenditure for all the households amounted to Rs. 48.7 which is very much below the poverty line, particularly in view of the large size of a household.

B. Labour force

30.2 per cent of the population formed the labour force in the selected urban blocks of the towns

under survey. In the labour force, it appears, persons of the age 15 and above only were considered. In the table below, the percentage distribution of persons in the labour force by age groups is given.

TABLE 1 : *Percentage distribution of persons in labour force by age-groups*

Age groups	Employed	Unemployed	Total
1	2	3	4
15—19	1.9	25.4	10.5
20—24	7.4	43.1	20.5
25—29	13.7	22.3	16.8
30—39	27.9	7.2	20.3
40—49	23.7	1.7	15.7
50—59	18.0	0.3	11.5
60 and above	7.4	..	4.7
TOTAL	100.0	100.0	100.0

As the distribution of persons outside the labour force by sex and age-groups has not been indicated in the report, it is not possible to compute the participation rates by different age-groups.

The labour force consisted of 87.5% males and 12.5 per cent females. 8.9 per cent of the persons belonged to the scheduled castes, 0.2 per cent to the scheduled tribes and the remaining 90.9 per cent to other castes.

The labour force comprised 63.2 per cent employed and 36.8 per cent unemployed persons. Among the males, the percentage of employed and unemployed was 65.25 per cent and 34.75 per cent respectively; among the females the percentage of the unemployed was as high as 51.30. While among the persons in the labour force belonging to the scheduled caste 30 per cent were unemployed, among those belonging to the scheduled tribes all reported

TABLE 3 : *Percentage distribution of employed persons by activity status*

Activity status	Percentage as per usual activity status						Percentage as per current activity status			
	Males		Females		Persons		Males		Females	Persons
	1	2	3	4	5	6	7			
1. Employer	7.4	..	6.7	7.4	..	6.7				
2. Own account worker	56.2	10.9	52.0	57.1	10.9	52.9				
3. Unpaid household worker	5.6	71.0	11.7	5.6	67.3	11.3				
4. Apprentices :										
(i) Paid	0.6	..	0.5	0.6	..	0.5				
(ii) Unpaid	7.1	..	6.4	7.1	..	6.4				
5. Employee :										
(i) regular/monthly/fortnightly/weekly	20.2	10.9	19.4	20.2	12.7	19.6				
(ii) daily-wage	0.7	3.6	1.0	1.1	5.5	1.5				
(iii) Casual	2.2	3.6	2.3	0.9	3.6	1.1				
	90.8	9.2	100.0	90.8	9.2	100.0				

to be unemployed. 47 per cent of the labour force had per capita household expenditure below Rs. 40 per month, which is not upto the subsistence level.

Employment

Among the employed persons, 90.7 per cent were males and 9.3 per cent were females. As indicated in table No. 1 the bulk of the employed persons belonged to the age group 30-59 forming 69.6 per cent of the total employed. 7.4 per cent belonged to the age-group 60 and above and the remaining 23.0 per cent to the age-group 15 to 29.

Sector-wise distribution of the employed persons is given in the table below.

TABLE 2 : *Percentage distribution of employed persons by sector of employment*

Sector	Percentage of the employed
1	2
1. Government	21.7
2. Local Government	3.6
3. Co-operative	1.0
4. Private	53.2
5. Domestic	20.5
TOTAL	100.00

The pattern of employment indicated the pre-dominance of the tertiary sector. Trade and commerce accounted for the employment of 33.8 per cent and services for 33.3 per cent of the working force. Agriculture, manufacturing industries, and transport had 17.0, 9.9 and 3.0 per cent of the working force in their fold.

During 1951 and 1972, there was no significant change in the industry of employment of the employed persons.

The distribution of the employed by persons activity status is given in the table below :

It will be seen from the table above that enquiries regarding employment and activity status were made on the basis of two reference periods—a long period covering a year or more (usual status) and a short period of a week preceding the date of enquiry. As the enquiry was confined to urban areas, no significant variation was noticed in the number of the employed persons or their activity status in the two reference periods. However in respect of unpaid family workers the percentage of females as per usual status was 71.0 while as per current status it was 67.3. It may be mentioned that the predominant activity status (time criterion) was taken into consideration.

The percentage distribution of employed labour force by *per capita* monthly expenditure group is given below.

TABLE 4 : Percentage distribution of employed persons by per capita monthly expenditure groups

Per capita monthly household expenditure (Rupces)	Percentage of employed persons
1	2
0—40	47.6
41—60	27.9
61—90	14.3
91—120	7.1
121—150	2.4
151—180	0.5
181—250	0.2

It will be observed that the 47.6 per cent of the employed persons belonged to families having per capita expenditure Rs. 0.40, which is below the poverty line.

Under-employment

85.5 per cent of the employed persons were having work all the year round, 12.0 per cent had only seasonal employment and 2.5 per cent had casual or intermittent employment.

The following is an analysis of the mandays available for work during the reference period of a year preceding the date of enquiry in respect of the employed labour force :—

	Number	Percentage
1	2	3
(i) mandays with full time work.	167,598	88.4
(ii) mandays with part-time work.	10,137	5.4
(iii) mandays available for additional work		
(a) full time	9,435	5.0
(b) part time	2,374	1.2
	189,344	100.0

It will be seen that of the total mandays available for work the employed persons were unemployed for 6.2 per cent of the mandays. The percentage of such under-employed persons to the employed labour force was 28. Among these under-employed persons 62.7% wanted additional or supplementary work within the town of their residence, 20.4% in rural areas and 16.9% in other urban areas. The problem was also studied with the reference period of a week and it was found that on 3.5 per cent of the mandays and for 12.9 per cent of the man-hours available for work the employed persons were available for additional or supplementary work. 59 per cent of the employed persons worked for less than 4 days in the reference week. However, as the study was confined to a few weeks only, it cannot be called a normal or average situation.

Unemployed

Age-composition: The unemployed persons formed 36.8 per cent of the labour force in the sample population. Their distribution by age groups and age-specific incidence of unemployment are given in the table below :—

TABLE 5 : Percentage distribution of unemployed by age-groups and age-specific incidence of unemployment

Age Group	Unemployed persons	Age specific incidence of unemployment
1	2	3
15—59	25.4	88.9
20—24	43.1	77.2
25—29	22.3	48.7
30—39	7.2	13.1
40—49	1.7	4.1
50—59	0.3	0.1
TOTAL	100.0	36.8

It will be observed from the above table that while the number of unemployed persons is the highest in the age group 20-24, the incidence of unemployment is the highest in the age group 15-19. 88.8 per cent of the unemployed persons were bachelors.

Educational standards: The percentage distribution of the unemployed persons by educational qualifications and incidence of unemployment is given in the table below.

TABLE 6 : *Percentage distribution of unemployed persons by educational standard and incidence of unemployment in different educational groups*

Educational standard	Percentage of unemployment			Incidence of unemployment		
	Males	Females	Persons	Males	Females	Persons
1	2	3	4	5	6	7
1. Illiterate	1.1	6.7	1.9	7.3	14.3	10.1
2. Literate but below primary	4.5	..	3.8	24.1	..	22.0
3. Primary	3.8	..	3.2	14.5	..	12.9
4. Middle	15.7	11.7	15.0	22.5	46.7	24.2
5. Secondary	57.3	63.3	58.4	51.9	86.4	56.1
6. Graduates and above :						
(i) Agriculture . . . . .	..	..	..	..	..	..
(ii) Engineering and Technology	1.1	..	0.9	25.0	..	25.0
(iii) Medicine and Surgery . . . . .	..	1.6	0.3	..	100.0	5.6
(iv) Mining and Geology . . . . .	..	..	..	..	..	..
(v) Banking/Audit/Accountancy . . . . .	..	..	..	..	..	..
(vi) Teaching	0.4	..	0.3	12.5	..	11.1
(vii) Other professional subjects . . . . .	..	..	..	..	..	..
(viii) Arts, Science and Commerce	16.1	16.7	16.2	48.4	76.9	51.9

The percentage of unemployed among the labour force with technical qualifications was 26 and with non-technical education, 41.

Registration with employment exchange : 43 per cent of unemployed males and 16.1 per cent of the unemployed females were registered with the employment exchanges. The percentage of the unemployed persons registered with the employment exchanges among the total unemployed classified by educational standard is given in the table below :—

TABLE 7 : *Percentage of the unemployed persons registered with employment exchanges classified by sex and educational standard*

Educational standard	Males		Females	
	Registered	Not registered	Registered	Not registered
1	2	3	4	5
Illiterate . . . . .	..	100	..	100
Literate but below primary . . . . .	..	100	..	100
Primary	9.1	90.9	..	100
Middle	26.7	73.3	28.6	71.4
Secondary	44.5	55.5	15.8	84.2
Graduate and above	70.0	30.0	9.1	90.9
TOTAL	43.2	56.8	16.1	83.9

Among the unemployed persons not having registration with employment exchanges, 48.5 per cent gave no specific reasons for their non-registration; 18.1 per cent were ignorant of the facility, 25.9 per cent had not found the exchanges helpful and 6.5 per cent avoided registration due to cumbersome procedures involved.

Job preferences : 26 per cent of the unemployed persons wanted to set up their own enterprise. The reason given for not having done so already indicated that 62.2 per cent of them were lacking finance, 1.2 per cent had not been able to secure license, 23.2 per cent had no technical know-how and 13.4 per cent had other reasons.

The rest of the 74 per cent of the unemployed persons sought full time paid jobs. Their distribution by place preference was as follows :—

Within town	36.3 per cent
Out side town but within the district	21.5 per cent
Outside the district but within the state	25.4 per cent
Outside the state	16.8 per cent

In the table below, the percentage distribution of the unemployed by salary expected at different places is given.

TABLE 8 : *Percentage distribution of unemployed persons by place of preference and salary expected*

Monthly salary expected	Within town	Outside town within district	Outside district but within the state	Outside state	Total
1	2	3	4	5	6
Below Rs. 50	..	..	..	..	..
Rs. 51—100	2.2	12.7	10.8	11.6	8.2
101—150	21.5	9.1	13.8	9.3	14.8
151—200	21.5	18.2	24.6	23.3	21.9
201—250	23.7	32.7	23.1	23.3	25.4
251—300	24.7	18.2	20.0	25.6	22.3
301—350	2.2	1.8	4.6	2.3	2.7
351—400	3.2	1.8	3.1	4.6	3.1
401—450	1.0	5.5	..	..	1.6
TOTAL	100.0	100.0	100.0	100.0	100.0

Duration of unemployment

The percentage distribution of the unemployed persons by duration of unemployment is given below :—

Period of unemployment	Percentage
Less than 1 month	0.8
1—3 months	3.2
3—6 months	11.3
6—9 months	2.9
9—12 months	16.2

22—18 months	10.4
18—24 months	17.9
14 months or more	37.3

37.3 per cent of unemployed persons were waiting for a job opportunity for more than two years. Among such males, the majority had passed Secondary Examination (57.5%). Among such females, the majority was of the graduates. In the table the distribution of unemployed males and females by educational standards and duration of unemployment is given.

TABLE 9 : *Percentage distribution of unemployed persons by duration of unemployment and educational levels*

Duration of unemployment	Educational Standard						Total
	Illiterate	Literate below primary	Primary	Middle	Secondary	Graduates and above	
1	2	3	4	5	6	7	8
MALES							
Less than 1 month	25.0	..	..	25.0	25.0	25.0	1.5
1—3 months	..	..	..	..	83.0	16.7	2.3
3—6 months	..	..	8.0	..	80.0	12.0	9.4
6—9 months	..	..	6.3	..	50.0	43.7	6.0
9—12 months	..	3.2	3.2	9.8	80.6	3.2	11.7
12—18 months	2.1	..	4.2	8.6	72.3	12.0	17.7
18—24 months	..	3.5	..	15.8	57.9	22.8	21.4
24 and above	..	..	..	..	57.5	2.5	30.0
TOTAL	0.8	1.1	2.2	6.4	64.7	24.8	100.0

ABLE 9—contd.

	1	2	3	4	5	6	7	8
FEMALES								
Less than 1 month	.	—	—	—	—	—	—	—
1—3 months	.	—	—	—	—	80.0	20.0	7.2
3—6 months	.	—	—	—	—	100.00	—	11.4
6—9 months	.	—	—	—	—	75.0	25.0	5.7
9—12 months	.	—	—	—	—	80.0	20.0	7.1
12—18 months	.	—	—	—	14.3	71.4	14.3	30.0
18—24 months	.	—	—	—	—	88.2	11.8	24.3
24 and above	.	—	10.0	—	20.0	30.0	40.0	14.3
TOTAL	.	—	1.4	—	7.2	74.3	17.1	100.0

The following table indicates the distribution of unemployed persons and the intensity of unemployment by the monthly per capita household expenditure group.

TABLE 10 : *Percentage distribution of unemployed persons and intensity of employment by per capita monthly household expenditure*

Per Capita monthly expenditure (Rupees)	Percentage of unemployed persons	Percentage of unemployed persons to the labour force.
1	2	3
0—40	44.0	36.1
41—60	38.2	45.6
61—90	13.5	36.6
91—120	2.7	19.2
121—150	0.5	12.5
151—180	0.8	50.0
181—250	0.3	50.0

It will be observed that 44% of the unemployed persons belonged to the families living below the poverty line and having per capita monthly household expenditure Rs. 0-40.

However, the intensity of unemployment was very high in the expenditure groups Rs. 151—180, Rs. 181—250 and Rs. 41—60.

APPENDIX XXXI

(Para 4.15)

Projected Labour Force for the years 1971, 1976 and 1981

(Thousands)

Age Group	RURAL						URBAN						Total labour force (Rural and urban)		
	Males			Females			Males			Females			Males	Females	Persons
	Popu- lation	Parti- cipa- tion rate (per- cent)	Labour Force*	Popula- tion	Parti- cipa- tion rate (per- cent)	Labour Force	Popu- lation*	Parti- cipa- tion rate (per cent)	Labour Force	Popu- lation	Parti- cipa- tion rate (per cent)	Labour Force			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Year—1971															
15—34	71,826	89.6	64,356	69,699	49.3	34,362	20,545	75.4	15,491	17,155	18.8	3,225	79,847	37,587	117,434
35—59	47,535	97.0	46,109	44,101	51.8	22,844	12,893	93.3	12,029	9,849	24.9	2,452	58,138	25,296	83,434
60+	11,505	79.9	9,191	10,888	24.3	2,647	2,804	58.4	1,638	2,608	11.4	297	10,829	2,944	13,773
TOTAL	130,866	—	119,656	124,688	—	59,853	36,242	—	29,158	29,612	—	5,974	148,814	65,827	214,641
Year—1976															
15—34	82,593	89.1	73,590	79,384	48.8	38,739	22,778	74.9	17,061	19,865	20.8	4,131	90,651	42,870	133,521
35—59	52,796	96.5	50,948	48,741	51.3	25,004	14,560	93.3	13,584	12,171	25.9	3,152	64,532	28,156	92,688
60+	13,314	79.9	10,638	12,525	24.3	3,044	3,672	58.4	2,144	3,131	11.4	357	12,782	3,401	16,183
TOTAL	148,703	—	135,176	140,650	—	66,787	41,010	—	32,789	35,167	—	5,641	167,965	74,427	242,392
Year—1981															
15—34	91,431	88.6	81,008	88,297	48.3	42,647	28,875	74.4	21,483	24,438	22.8	5,572	102,491	48,219	150,710
35—59	57,866	96.5	55,841	54,812	50.8	27,844	17,404	93.3	16,238	13,877	26.9	3,733	72,079	31,577	103,656
60+	15,823	79.9	12,643	14,503	24.3	3,524	4,318	58.4	2,522	3,901	11.4	445	15,165	3,969	19,134
TOTAL	165,120	—	149,492	157,612	—	74,015	50,597	—	40,243	42,216	—	9,750	189,735	83,765	273,500

1. The projected labour force includes the age-groups 15 years and above and is not confined only to the traditional age-group of 15—59 years.

2. The Planning Commission had appointed an expert committee for working out the labour force participation rates. These labour force projections are based on the participation rates given by that expert committee.

3. The labour force projections are based on the population projections worked out by the said committee taking into consideration the actual population 1971 Census.

APPENDIX XXXII

(Para 4.52)

Projected labour force for 1971, 1976 and 1981

(Thousands)

Basis of projection	Year	RURAL						URBAN						Total labour force (Rural and Urban)		
		Males			Females			Males			Females			Males	Females	Persons
		Popu- lation	Parti- cipa- tion rate	Labour Force	Popu- lation	Parti- cipa- tion rate	Labour Force	Popu- lation	Parti- cipa- tion rate	Labour Force	Popu- lation	Parti- cipa- tion rate	Labour Force			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
21st Round of National Sample Survey(1966-67)	1971	225,219	53.96	121,528	213,637	28.53	60,950	58,718	50.56	29,688	50,377	10.85	5,466	151,216	66,410	217,632
	1976	245,555	53.96	132,502	233,363	28.53	66,579	67,720	50.56	34,239	58,362	10.85	6,332	166,741	72,911	239,652
	1981	263,628	53.96	142,254	250,403	28.53	71,440	76,837	50.56	38,849	66,461	10.85	7,211	181,103	78,651	259,754
Census 1961	1971	225,219	58.52	131,798	213,637	31.45	67,189	58,718	54.15	31,796	50,377	11.25	5,667	163,594	72,856	236,450
	1976	245,555	58.52	143,699	233,363	31.45	73,393	67,720	54.15	36,670	58,362	11.25	6,566	180,369	79,958	260,328
	1981	263,628	58.52	154,275	250,403	31.45	78,689	76,837	54.15	41,607	66,461	11.25	7,477	195,882	86,166	282,048
Census 1971	1971	225,219	54.25	122,181	213,637	15.70	33,541	58,718	50.85	29,858	50,377	8.12	4,091	152,039	37,632	189,691
	1976	245,555	54.25	133,214	233,363	15.70	36,638	67,720	50.85	34,436	58,362	8.12	4,739	167,649	41,377	209,026
	1981	263,628	54.25	143,018	250,403	15.70	39,282	76,837	50.85	39,072	66,461	8.12	5,397	182,090	44,679	226,768

- Source :
- National Sample Survey Report No. 181-Tables with Notes on Urban Labour Force issued by the Cabinet Secretariat, Government of India.
 - The data on participation rate received from the Chief Executive Officer National Sample Survey Organisation, Government of India, in respect of participation rate in rural areas based on 21st Round of National Sample Survey (1966-1967).
 - Census of India, 1961 Economic Tables B(i) and B(iii) published by the Registrar General, Census.
 - Provisional Population Tables—Census of India (1971-Paper I Supplement).
 - "B" Series (Economic Tables)—Census 1971 received from the Registrar General & Census Commissioner, India.

- Notes :
- The labour force projections include all age-groups and are not confined to the conventional age-group of 15—59 years.
 - For arriving at the labour force projections the participation rates estimated from the 21st Round of NSS, from the 1961 Census and from the 1971 Census have been used.
 - The labour force projections are based on the population projections worked out by the expert Committee, set up by the Planning Commission, taking into consideration, the actual population of 1971 Census.

