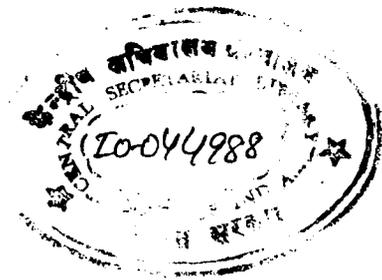


**FOURTH FIVE YEAR PLAN PRELIMINARY
MEMORANDUM**

ORISSA



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Fourth Five-Year Plan Preliminary Memorandum

SECTION I

OBJECTIVES, APPROACH AND PRIORITIES

Reduction in disparities in the levels of development of different regions of the country is an accepted major objective of Planning in India. Another major objective is maximisation of the rate of growth with a given order of investment. In practice, in areas lacking in suitable investment opportunities, these two principles conflict with each other. Fortunately for Orissa, nature has resolved this conflict by providing the State with mineral, forest and water resources in an abundant measure. Orissa presents a picture of immense opportunities of profitable investment on the one hand and a pressing need for raising the levels of living of the people on the other. That Orissa is one of the least developed parts of the country does not need much proving. Whether it's the consumer expenditure *per capita*, or income *per capita* or any other indicator of the "pattern of production, services and economic activities" generally, Orissa's place in the list of the States in the Union is invariably among the last.

Problems:

2. The main reason for this State of continued poverty and stagnation even after two and a half plan periods, is the low starting point. Fourteen years back at the time of commencement of planning in our country, Orissa with her vast natural resources had practically no power, excepting a Paper Mill and perhaps one or two other units no large industry, hardly any irrigation, an extremely inadequate system of railways and roads, poor public health conditions and an almost total absence of facilities of higher education specially in technical subjects. There was a conspicuous absence of skills and knowledge of modern techniques of production in agriculture and industry. In the absence of banks and business houses, modern financial and commercial practices were not in vogue. In a situation of this kind, it is not surprising that enterpreneurial talent was much more scarce in Orissa than in other States. Because of inadequate means of transport, poor facilities in regard to credit, processing and marketing of agricultural produce, a feudal order of land laws in a large part of the State and extreme poverty of the actual tillers of the soil, the agriculturists had neither any incentive nor the means for adopting improved methods of cultivation. It was against such a bleak background that the schemes in the first decade of planning were formulated and implemented. Under such conditions, the rate of growth was bound to be low. By the end of the Second Plan, however,

a stage had been reached, when it was possible to achieve a more rapid advance. One of the most important achievements in the first two plans was the building up of an administrative machinery for undertaking greater development tasks.

3. The first two plans took the form of a number of programmes outlined in physical terms for each of them. These programmes were fitted into the national plan to fall into the desired pattern. No attempt was made to apply the national accounting methods to State Plans and no projections were made for the State's economy as a whole. An attempt was made in this direction for the first time on the eve of the drawing up of the Third Plan.

4. In 1959, the National Council of Applied Economic Research was invited by the Government of Orissa to undertake the Techno Economic Survey of the State. The objective of the Survey was to make an appraisal of the various currently available as well as potential material resources in the State and to assess the prospects of economic and industrial development in Orissa based on the above resources and other complementary factors such as Transport, Power, Manpower, etc. necessary for effective utilisation of the resources. After considering the state of under-development of Orissa and the State's potential in various sectors and also taking into consideration the developmental requirements in different fields for India as a whole, the National Council suggested certain guide lines for development of Orissa for the period 1961-71. The total investment recommended was of the order of Rs. 1,427 crores at 1956-57 prices. The objective was to increase the State income to Rs. 896 crores at 1956-57 prices by the end of the Fourth Plan period, when the population of the State would be about 21 million. The National Council's view was that without an investment of this order, it would not be possible for Orissa to catch up with the *per capita* income of India. A break up of this investment between Central sector, State sector and Private sector was also suggested. At this stage the State's Third Five-Year Plan was finalised generally with reference to the anticipated resources of the State Government and Central assistance. Unfortunately, again no view was taken regarding the total investment in the State. As a result no conscious effort could be made to develop the economy of the State at the desired accelerated pace.

Basic Approach:

5. The findings of the National Council of Applied Economic Research and their implications for the Third and Fourth Plans of the State were pointedly brought to the notice of the Planning Commission and the Central Government in a note sent by the Chief Minister, Orissa to the Prime Minister in 1962 on the

longterm development plan for Orissa. The Central theme of the note was that because of the extremely low rate of growth in the private sector of the State, there was an urgent need to substantially augment public sector investment, Central as well as State and in fact make up for the inadequate response of the private sector. Fortunately, the State Government has been able to mobilise greater resources in the Third Plan period and it has been able to increase the plan outlay from Rs. 160 crores to over Rs. 225 crores. But, again, no view could be taken on the question of total investment in the State in the Plan period. As conditions have not changed very much since 1962, it is necessary to emphasise this aspect once again while determining the approach to the investment policies of the Fourth Plan in regard to the State. It is, therefore, suggested that for the Fourth Plan, a unified and integrated approach should be made towards plan formulation and implementation in Orissa. A view should be taken of investment that can be contemplated in the Plan period in all the three sectors and not merely in the State sector. Although in this Memorandum, as desired by the Planning Commission, we are confining ourselves to proposals relating to the State Plan, the Orissa Government would press for a recognition of the principle that the State Plan should consist of a total investment plan of which the State sector should form only a part. Rest of the investment should be planned keeping in mind the national priorities but located within State boundaries according to a pre-determined pattern to enable the State to attain the desired rate of growth.

6. There need be no apprehension that the adoption of the suggestions in the above para. will unduly disturb the national priorities and distort the overall pattern of sectoral outlays suggested by the Planning Commission. As stated in the very first para. of this memorandum, in Orissa, there is ample scope of profitable investment in agricultural as well as industrial sectors within the field of national needs.

Objective :

7. The broad objective of the Fourth Plan in Orissa is to reach a level of economic equality with other States of India, by the end of the Plan period. The progress of Orissa should, therefore, be faster than the pace envisaged for the country as a whole. Forces will have to be generated which will make the progress self-sustained and accelerating. The path on which the economy has to march has necessarily to be the same as indicated by the Planning Commission in the "Memorandum on the Fourth Five-Year Plan". The instruments and institutions of development will, however, have to be appropriate to local conditions and skills that are available or which can be created in the required time. A large measure of flexibility will, therefore, have to be

incorporated in the Plan. Most of the institutions and instruments have already been created and tested, both in the field of agriculture and industry. It has been stated in the "Memorandum" that "the crucial problem for the Fourth Plan is thus of accelerating the tempo of development without accelerating inflationary trends in the economy". Government of Orissa's stress is, therefore, on schemes which seek to increase production in a short time. Merely increasing the production with imported technique will leave the chronic problems of the State, unresolved. It would, therefore, be the State Government's endeavour to increase productivity of the people and achieve technological advancement in the various fields.

Priorities :

8. The priorities on the basis of which the proposals contained in the present memorandum formulated are, preference for—

- (i) quick yielding schemes
- (ii) maximum utilisation of potential already created
- (iii) ensuring people's participation and improving the technological standards and practices and thereby "creating fresh cycles of employment, income and production", specially in rural areas.
- (iv) feasible and economic schemes for which the State is or plans to be "techno-administratively" prepared.

Strategy :

9. The Fourth Plan objective of catching up with the *per capita* income of India by 70-71 with a sustained growth, within the priorities indicated above is sought to be achieved by—

- (i) making all possible efforts to ensure an annual growth rate of 8 per cent to 9 per cent in agriculture.
- (ii) carefully providing for various related programmes under Community Development.—Co-operation, Irrigation, Rural Electrification, Storage, Processing, Marketing, Transport, etc.
- (iii) taking steps to achieve a rapid and widespread growth both of large and small industries based on—
 - (a) needs of the State's developmental programmes specially in the field of agriculture.
 - (b) availability of raw materials.
 - (c) availability of power.

- (d) the need to create work places near the places where people live.
- (e) ancillary requirements of large industries.
- (f) needs of urbanisation and creation of growth centres.
- (iv) undertaking a co-ordinated development of human resources.
- (v) maximum mobilisation of financial resources.
- (vi) advance action for the Fifth Plan.
- (vii) suitably strengthening administration for a systematic implementation of Plan Programmes particularly to maximise the application of science and technology to agriculture.
- (viii) undertaking a vigorous programme of family planning and population control.

10. The policy briefly outlined above can succeed, only if the basic approach, that the quantum of investment in Orissa must be the proportionate share out of the total plan of Rs. 22,500 crores plus an element to give a weightage on account of under-development is accepted and translated into concrete programmes.

SECTION II

SIZE AND PATTERN OF INVESTMENT

In the previous section the basic approach to determine the size of investment in Orissa in the Fourth Plan period has been stated. In order to translate the principles into a figure of investment, it is necessary to make an estimate of the investment that is required to make up for the under-development of Orissa. It may be stated at the outset that attempting an estimate of this kind without going into the details of all aspects of the economy and social life, is somewhat of an over-simplification of a complicated problem but there is no doubt that the resultant figure can serve as an indicator of the magnitude of the problem.

Investment

2. In the table below is shown the State income and *per capita* income of Orissa as compared to national income and *per capita* income of India:—

Year	State income* (current prices in crores)	National income† (current prices in crores)	(2) as per cent of (3)	<i>per capita</i> income of Orissa	National <i>per capita</i> income
1	2	3	4	5	6
				Rs.	Rs.
1951-52	275·57	9,970	2·76	188·16	274·2
1952-53	289·25	9,820	2·95	193·66	265·4
1953-54	311·60	10,480	2·97	204·65	278·1
1954-55	315·97	9,610	3·29	203·63	250·3
1955-56	324·07	9,980	3·25	205·03	255·0
1956-57	345·67	11,910	3·06	214·76	283·3
1957-58	318·02	11,390	2·79	194·08	279·6
1958-59	370·76	12,600	2·94	222·33	303·0
1959-60	399·27	12,950	3·08	235·33	304·8
1960-61	440·01	14,140	3·10	253·85	325·7
1961-62	455·29	14,800	3·08	259·48	333·6
1962-63	449·92	18,400	2·92	252·26	339·4

*Compiled by Bureau of Statistics and Economics, Orissa

†Compiled by Central Statistical Organisation.

3. The break-up of the figure of the State income into different income producing sectors is re-produced in Appendix A. It has been stated in the "Memorandum on the Fourth Five-Year Plan" that the national income in 1965-66 may be around Rs. 17,400 crores at 1960-61 prices. Orissa's population is 4 per cent of the population of India. On a proportionate basis, the State income should be Rs. 696 crores. It has been estimated by the State Bureau of Statistics and Economics that with the anticipated figures of production for the last year of the Third Plan, the State income in 1965-66 will be about Rs. 590 crores at 1960-61 prices. Applying the broad capital output ratio of 2.7 as worked out by NCAER for the investment scheme recommended for Orissa and which is also more or less equal to what can be computed from other published data, an investment of the order of Rs. 286 crores will be required for making up this short-fall of Rs. 106 crores in the State income. According to the Index of wholesale prices published in the Reserve Bank Bulletin, prices rose by 9 per cent between 1960-61 and 1963-64. In terms of 1963-64 prices, the figure of investment worked out above, becomes Rs. 312 crores. According to the "Memorandum", the investment component of the Fourth Plan will be Rs. 19,975 crores. On a proportionate basis, an investment of about 800 crores should be located in Orissa. In addition, an investment of Rs. 312 crores should be made to make up the leeway. The total investment required is, therefore, of the order of Rs. 1,112 crores. In addition, about Rs. 100—110 crores will be required as current outlay. The total outlay of Plan programmes and projects to be executed in Orissa during the Fourth Plan period should, therefore, be of the order of Rs. 1,220 crores. The total outlay of Rs. 1,220 crores suggested above will have to be shared by the Centre, the State and the Private sector.

Size of the State Plan:

4. In his concluding remarks at the meeting of the National Development Council, the Prime Minister indicated that the total outlay which the States might plan for, in the Fourth Plan period should be about twice the outlay in the Third Plan. It is anticipated that the total expenditure on Orissa's Third Plan would amount to about Rs. 225 to 230 crores. The State Government has, therefore, drawn up a Plan with an outlay of Rs. 460 crores. During the Fourth Plan, an investment of Rs. 6,980 crores is contemplated in the private sector. On a proportionate basis, Orissa's share works out to Rs. 280 crores during the Plan period. There is, however, no likelihood of private sector effort of this magnitude taking place in Orissa. There may be a considerable short-fall in this. Therefore, in anticipation of a part of this short-fall and to make up the deficiency, the State-owned Corporations must be enabled to draw finance outside the State Plan ceiling from

the sources normally available to the private sector. In addition to the relevant provisions in the State Plan, it has been assumed that State Corporations dealing with Industry and Mining would be able to raise Rs. 90 crores from these sources. The residual responsibility on the private sector will, therefore, be to make an investment to the extent of Rs. 190 crores. Even for this investment special efforts will be necessary. The balance of Rs. 480 crores investment remains for the Centre. Programmes and Projects must, therefore, be taken up in the Central sector located in Orissa for an outlay of at least Rs. 480 crores within the Fourth Plan period.

5. The size and pattern of outlays proposed for the Fourth Plan in the State Sector are given below:—

(Rs. in crores)

Head of Development	Third Plan	Fourth Plan		
		Total outlay	Investment	Current outlay
1	2	3	4	5
Agricultural Production ..	6.81	33.50	10.50	23.00
Land Development ..	0.84	5.50	4.50	1.00
Minor Irrigation ..	5.40	14.00	14.00	
Soil Conservation ..	1.06	8.00	7.00	1.00
Animal Husbandry and Dairying	3.58	15.00	10.00	5.00
Forests ..	2.35	7.00	5.00	2.00
Fisheries ..	2.17	8.00	7.00	1.00
Marketing ..	0.16	1.00	0.50	0.50
Co-operation ..	2.50	10.00*	7.00	3.00
Community Development ..	17.50	16.50	5.00	11.50
Panchayats ..	0.72	1.50	0.70	0.80

*Includes about Rs. 4.7 crores for agricultural processing industries

(Rs. in crores)

Head of Development	Third Plan	Fourth Plan		
		Total outlay	Investment	Current outlay
1	2	3	4	5
Irrigation ..	25.20	62.00	62.00	..
Flood Control ..	2.85	5.00	5.00	..
Power ..	55.46	63.00	63.00	..
Large and Medium Industries ..	6.03	52.00	52.00	..
Village and Small Industries ..	4.65	12.00	8.00	4.00
Mineral Development ..	3.72	8.00	7.00	1.00
Roads ..	21.04	25.00	25.00	..
Road Transport ..	..	3.00	3.00	..
Paradeep Port ..	19.05	..	..	..
Ore Transport ..	1.42	2.00	2.00	..
Tourism ..	0.11	1.00	0.75	0.25
Education (General) ..	15.25	31.00	12.00	19.00
Technical Education (including Scientific Research).	3.17	6.20	5.00	4.00
Craftsman Training (State's share).	0.69	2.80	..	..
Cultural Programme ..	0.19	2.00	0.50	1.50
Health ..	11.26	20.00	10.00	10.00
Urban Water-supply ..	1.82	6.00	6.00	..
Rural Water-supply ..	0.76	4.00	4.00	..
Housing ..	1.55	10.00	10.00	..

†In addition the State Corporations will raise about Rs. 90 crores from financial institutions so that the total Industries and Mining Programme will be of the order of Rs. 162 crores.

Head of Development	Third Plan	Fourth Plan		
		Total outlay	Investment	Current outlay
1	2	3	4	5
	Rs. P.	Rs. P.	Rs. P.	Rs. P.
Capital Construction ..	3.09	7.50	7.50	..
Welfare of Backward Classes	3.88	10.00	1.50	8.50
Social Welfare ..	0.13	1.50	0.50	1.00
Labour Welfare ..	0.12	0.30	0.10	0.20
Public Co-operation ..	0.02	0.15	0.05	0.10
Statistics ..	0.30	0.55	0.15	0.40
Publicity ..	0.34	0.80	0.10	0.70
Local Bodies ..	0.16	2.00	1.00	1.00
Government Press ..	0.26	1.00	1.00	..
Rural Works ..	..	1.00	1.00	..
Others ..	0.24	0.20	0.20	..
Total ..	225.85	460.00	359.55	100.45

NOTE—The break-up between investment and current outlay is tentative.

6. A similar scheme of investment for the Central sector has to be considered and finalised by the Planning Commission in consultation with Central Ministries so that a total sum of Rs. 480 crores is invested in a balanced manner in the State during the Fourth Plan period. Some of the most suitable schemes which the Centre might consider adopting are providing a rail-link to Paradeep, railway connexion between Talcher and Rourkela, setting up of another iron and steel complex besides expanding Rourkela, commencing the work on Tikkerpara project by taking up Manibhadra irrigation scheme as the first stage of Tikkerpara and undertaking an intensive development of Backward areas. In this connexion Dr. A. N. Khosla's "Master Plan for the Integrated Development of the River Basins of Orissa" taken from his "Sixth Sir M. Visvesvaraya Lecture" may be referred to.

Pattern of Investment:—

7. The relative priorities that are proposed to be allocated to different programmes will be clear from the following table giving the percentages of outlay for the different heads of development:—

-----	Third Plan (Rs. in crores)		Fourth Plan (Rs. in crores)	
Agriculture and Allied subjects (including rural works).	71.1	31.5%	188.00	40.8%
Power ..	55.5	24.6	63.00	13.7%
Industries and Minerals ..	14.4	6.4	72.00	15.6%
Transport and Communication.	41.6	18.4%	31.00	6.8%
Social Services ..	43.2	19.1%	106.00	23.1%
Total ..	225.8	100%	460.00	100%

8. It will be seen that highest priority has been given to production programmes of Agriculture and Industry. This is in keeping with objectives of achieving an accelerated growth rate with minimum inflationary pressures.

Agricultural production targets and credit

9. Selected targets of agricultural production are:—

—	—	Achievement 1960-61	Anticipated Achievement 1965-66	Target, 1970-71
1	2	3	4	5
		Rs. nP.	Rs. nP.	Rs. nP.
Foodgrains production..	Lakh tons..	40.00	54.00	77.00
Production of Sugarcane..	Ditto ..	1.00	2.30	3.23
Production of Oil-seeds..	Ditto ..	0.90	2.00	4.40
Production of Jute ..	Lakh bales	2.20	4.47	7.80
Area under Vegetables ..	Lakh acres	..	2.00	6.00

10. To achieve the above targets, a large volume of credit will be required. It has roughly been estimated that the total short and medium term credit requirements which will have to be arranged will amount to Rs. 50 to 55 crores by the end of the Fourth Plan period. The target of short and medium term loans under Co-operation is Rs. 34 crores. Therefore, the balance of Rs. 15 to 20 crores mostly for fertilisers, will have to be advanced through Government agencies.

Levels of development and production at the end of the Fourth Plan

11. A statement showing the levels of development and production in selected fields likely to be reached at the end of the Third Plan and targets for the Fourth Plan is enclosed (Appendix B).

APPENDIX A

State Income of Orissa and its distribution by Industrial origin
at 1960-61 prices

		1960-61 Net output (Rs. in crores)
1. Agriculture	..	263·65
2. Animal Husbandry	..	20·05
3. Forestry	..	12·95
4. Fishery	...	11·12
5. Mining	..	7·03
6. Factory Establishment	..	8·88
7. Small Enterprises	..	21·48
8. Construction	..	2·28
9. Banks and Insurance	..	0·90
10. Other Commerce and Eransport		25·63
11. Profession, Liberal Arts and Domestic Services		34·68
12. Public Authorities (Government Service Administration).		17·33
13. House Property	..	14·03

Net domestic product (State Income)	..	440·01

APPENDIX B
Selected Physical Targets

Item	Unit	Achievement, 1960-61	Achievement, 1965-66	Target, 1970-71	Remarks
1	2	3	4	5	6
AGRICULTURAL PRODUCTION					
Foodgrains production.	Lakh tons	40·00*	54·00*	77·00	
Production of sugarcane.	Ditto ..	1·00	2·30	3·23	
Production of Oil-seeds.	Ditto ..	0·90	2·00	4·40	
Production of Jute ..	Lakh bales	2·20	4·47	7·80	
Coverage under improved seeds.	Lakh acres	12·00	62·00	..	72·00
Distribution of Ammonium sulphate.	Thousand tons.	21·70	100·00	500·00	
Distribution of Superphosphate.	Ditto	1·50	25·00	350·00	
Distribution of Compost.	Ditto ..	28,98·00	6,000·00	..	14,000·00

* Foodgrains production :—

Rice ..	Lakh tons	36·70	45·67	62·00
Wheat ..	Ditto ..	0·04	0·04	0·05
Other cereals ..	Ditto ..	0·60	1·10	2·95
Pulses ..	Ditto ..	2·66	7·19	12·00
Total ..		40·00	54·00	77·00

Item	Unit	Achievement, 1960-61	Achievement, 1965-66	Target, 1970-71	Remarks
1	2	3	4	5	6
Green Manuring— Area covered.	Lakh acres	12·00	50·00	..	70·00
Multiple cropping— Area covered.	Ditto ..	8·66	45·00	70·00	
Area under vegetable	Ditto ..	..	2·00	6·00	
Area under Potato ..	Ditto ..	..	0·75	2·00	
Area under fruits ..	Ditto ..	..	..	0·24	
SOIL CONSERVATION					
Soil Conservation— Area covered.	Thousand acres.	116·05	246·35	646·35	
Dry farming—Area covered.	Ditto ..	2·00	202·00	..	702·00
Land reclamation— Area covered.	Ditto	2·08	10·08	310·08	
FORESTS					
Forest—Roads—New Construction.	Miles	780	1,530	4,030	
Improvement of exist- ing roads.	Miles	225	302	1,302	
FISHERIES					
Production of fish ..	T o n s annually.	24,000	29,300	36, 000	
MARKETING					
Regulated markets established.	No	14	27	60	

Item	Unit	Achievement, 1960-61	Achievement, 1965-66	Target 1970-71	Remark
1	2	3	4	5	6
CO-OPERATION					
Short and Medium term credit.	Rs. in crores.	4.29	13.00	34.00	
Long-term credit ..	Ditto	0.12	3.00	10.50	
Membership coverage	Percentage	37.6	50	75	
IRRIGATION					
Minor Irrigation ..	000' Acs.	277.00	636.4	1,136.4	
Major and Medium Irrigation Potential (gross).	000' Acs.	906.0	1,464.00	3,283.33	
Utilisation (gross) ..	000' Acs.	702.0	1,324.99	3,124.68	
POWER					
Installed capacity ..	M. W.	170.00	429.50	914.50	
Generating capacity	000 KWH.	538742	1613000	4510000	
Town and villages electrified.	Nos.	176	576	2,076	
EDUCATION (GENERAL)					
Teachers in Primary Schools.	Nos.	37,328	49,928	67,428	
Opening of High Schools.	No	452	854	1,850	
Opening of M. E. Schools.	No	1,306	2,800	5,300	
Opening of Colleges	No	29	54	54	

Item	Unit	Achievement, 1960-61	Achievement, 1965-66	Target 1970-71	Remarks
1	2	3	4	5	6
School-going children as percentage of children in respective age groups.					
(i) Primary Stage—6 to 11 years.	Percentage	63·8	75·0	90·0	
(ii) Middle Stage—11 to 14 years.	Do.	10·0	20·7	37·0	
(iii) Secondary Stage—14 to 17 years.	Do.	4·7	10·8	22·0	
TECHNICAL EDUCATION					
Engineering Schools	No. ..	5	7	11	
Engineering Colleges	No. ..	1	2	3	
Intake in Engineering Colleges.	No. ..	25·0	580	1,000	
HEALTH					
Medical Colleges opened.	No. ..	2	3	4	
Admission in Medical Colleges.	No. ..	200	500	500	
Primary Health Centres.	No. ..	111	248	313	
Family Planning—Rural Family Planning Organisation.	No. ..	*	176	313	*28 urban and 60 rural centres opened.

Item	Unit	Achievement, 1960-61	Achievement, 1965-66	Target 1970-71	Remarks
1	2	3	4	5	6
Number of beds in district and Sub-divisional Hospitals.	No. ..	1,412	1,614	2,892	
S. I. H. Scheme ..	Number of tenements.	882	2,287	10,887	
L. I. G. H. Scheme..	Ditto ..	961	2,541	3,541	
WELFARE OF BACKWARD CLASSES					
Ashram Schools ..	No. ..	75	83	103	
Post-matric scholarships to Scheduled Tribe students.	No. ..	412	2,000	4,000	
Post-matric scholarships to Scheduled Caste students.	No. ..	480	2,326	6,326	
Pre-matric stipends to Scheduled Tribe students.	No. ..	90,415	115,415	170,415	
Pre-matric stipends to Scheduled Caste students.	No. ..	53,103	93,103	173,103	

Targets relating to large scale industries have been given in a separate section at the end of the Memorandum.

SECTION III EMPLOYMENT

According to the available estimates, the population of Orissa in 1966 is expected to be 19·5 millions. Assuming a simple growth rate of 2 per cent population of Orissa in 1971 is expected to be 21·4 millions. The work force in 1966 and 1971 is estimated to be 8·4 millions and 9·2 millions respectively. The estimate of work force has been prepared by applying the participation rate (43·7) per cent revealed by 1961 Census. Although participation rate has increased from 56·4 per cent in 1951 to 60·7 per cent in 1962 for male population and from 18·7 per cent to 26·6 per cent female population, the same has been assumed to be constant for the Fourth Plan period. Thus the addition to work force during the Fourth Plan period is roughly of the order of 1 million. To this, should be added the backlog of unemployment from the Third Plan period. This is estimated to be of the order of 2 millions. Additional employment should, therefore, be available for about 3 million persons during the Fourth Plan period.

2. Employment surveys conducted in rural areas showed that 35 per cent of the rural work force do not get employment in the normal course. This was the position during the later half of the Third Plan. If we assume that this would hold good during the Fourth Plan period, 0·35 million persons (out of 1 million additional work force) would not get work. Thus, additional employment opportunities of the order of 2·4 millions would be required to bring about full employment at more or less existing levels of techniques.

3. It was estimated that an annual plan outlay of Rs. 1 lakh created employment opportunities for 100 persons for a year (including secondary employment) during the Third Plan period. This norm is likely to undergo a change in the Fourth Plan period. As industries tend to be more capital—intensive and as projects become more costly due to rise in the cost of services and materials, a unit of expenditure would employ fewer persons in the Fourth Plan than was the case hitherto. Taking these considerations and the pattern of sectoral outlays into account, it is felt reasonable to assume that 75 persons (of all levels and skills) would be employed by an outlay of Rs. 1 lakh including secondary employment. The present preliminary Memorandum envisages an outlay of Rs. 4·60 crores for the State's Fourth Plan. The final year's outlay may be about Rs. 110 crores. This will create employment for about 0·8 million persons.

4. The above analysis would show that implementation of the State Fourth Plan alone would not provide enough employment to the available working force. About 1·6 million persons would still be unable to find employment and for them considerable additional investment will have to be made in the State in the Central and Private sectors.

SECTION IV

SECTORAL PROGRAMMES

(1) Agricultural Production—

1. In Orissa, the net cultivated area is a little over 16 million acres of which rice accounts for about 63 per cent, other minor millet crops 2 per cent, sugarcane, oil-seeds, jute and cotton taken together 6 per cent and other miscellaneous crops 29 per cent. In general, the level of productivity is extremely low, due to inferior cropping patterns, vagaries of monsoon, inadequate use of fertilisers and manures and very slow progress made in the adoption of scientific agricultural practices.

2. The scope for increasing production of the various crops is very large. In the case of rice, which is the most predominant crop, the yield in Orissa was 867 pounds per acre in 1963-64, as against 1,123 pounds in Andhra Pradesh, 1,343 pounds in Madras and 1,252 pounds in Kerala. It is not difficult to achieve much larger levels of output with the adoption of scientific agricultural practices provided the required sources are made available and the requisite organisation is built up.

3. The low rate of growth in the past has been due to a legacy of problems inherited from the erstwhile extremely backward Eastern States which merged with Orissa, existence of innumerable intermediaries in the land tenure system and perpetual cycle of droughts and floods experienced in the State due to very little attention being paid in the past to irrigation and flood protection measures. It is not possible to lay the entire blame for the stagnation of agricultural production on the cultivators when the basic requirement in respect of institutional set up and economic overheads had not been made. During the last decade considerable headway has been made to overcome the factors retarding the growth of agricultural production. The huge task relating to abolition of intermediaries in the land tenure system has almost been completed. During the first and second Five-Year Plans an investment of over 25 crores of rupees has been made on programmes relating to Agricultural production, Community Development and Co-operation. In the Third Plan the outlay for these two programmes is Rs. 38.10 crores. Besides this, much larger investments have been made for irrigation projects. The Agriculture Department has been re-organised and strengthened and a net work of extension services has been built up. For intensifying Agricultural Production in irrigated areas the Intensive Agricultural

District Programme has been taken up in Sambalpur district and Intensive Rice Cultivation Programme in the districts of Cuttack, Ganjam, Balasore and Bolangir. 61 Blocks have been covered so far by these programmes out of the 313 Blocks in the State.

4. It is against this background that the formulation of the Fourth Plan has been taken up in hand. The basic strategy for the Fourth Plan will be the diversification of the cropping pattern to suit the soil as well as the rainfall and moisture pattern, large scale adoption of the package of practices through intensive village planning and impact programmes, introduction of second crop in single cropped areas and taking three crops in irrigated areas. Out of 10 million acres under paddy only 80 per cent can give economical yields, while the remaining 20 per cent is more suited to crops like oilseeds, millets, pulses, jute, maize, etc. At present paddy is grown in higher lands without reference to the suitability of the soil and profitability of the cultivation. Area planning which is an essential pre-requisite is sought to be achieved through preparation of detailed district agricultural maps with clear demarcation of crop zones. In preparing the blue print for the area operational Plan the District Agricultural Officers will be assisted by different technical officers who will be sent from the State Headquarters. While long-term perspective for the next ten years will be diversion of 2 million acres from paddy to other crops, it is expected that during the Fourth Plan period, it may be possible to achieve 50 per cent of the target. The phenomenal increase in the price of vegetables and fruits and the overwhelming importance of improving the nutritional standards by enlarging the consumption of protective foods, makes it imperative that next to foodgrains and oilseeds, development of horticulture which includes vegetable production shall be given prominent place in the plan for agricultural production. During the first three plans, these programmes have received very little attention. In order to make up the vast gap existing between the actual production and the potential possibilities much bigger effort will be needed. Development of horticulture is of particular importance in our State in view of the fact that the percentage of tribal population constitute 24.07 of the total population of the State and the major agricultural possibilities in the tribal areas are horticulture, mainly development of fruit trees.

Physical Targets :

5. The physical targets of agricultural production aimed at for the Fourth Five-Year Plan are indicated in the following table :—

Level of production in 1960-61

Item	Unit	Anticipated achievement by the end of the Third Plan	Target for the Fourth Plan 1970-71
Foodgrains ..	Lakh tons ..	54.00	77.00
Oilseeds ..	Ditto ..	2.00	4.40
Sugarcane ..	Ditto ..	2.30	3.23
Jute ..	Lakh bales ..	4.47	7.80
Vegetables ..	Lakh acres ..	2.00	6.00
Potato ..	Ditto ..	0.75	2.00
Fruits ..	..	..	Additional area of 20,000 acres under banana, 600 acres under lemon, 1,000 acres mango, 2,400 orange and pine apple plantations in concentrated areas.

In fixing the above targets, the main consideration has been the feasibility on the basis of the resources of men, materials and money that can be mobilised during the Fourth Plan.

6. In the case of foodgrains, the rate of growth envisaged is 8 per cent per annum as against the national target of 5 per cent. On the basis of 120 million tons which has been estimated to be the demand for foodgrains for the country as a whole for meeting the consumption requirements of 550 million people by the end of the Fourth Plan as well as livestock feed and other uses, the requirement for the 21.33 million people in Orissa in 1971 will be of the order of 50 lakh tons. These figures emphasise the fact that the bulk of the additional efforts for increasing the production of foodgrains under the Fourth Plan in our State is meant to make a significant contribution in meeting the national requirement. The preliminary targets that have been envisaged are meant to serve as the frame work for the preparation of detailed area plans. As in the case of consolidated agricultural programme, the final target will emerge after the village production plans are finalised on the basis of the revised cropping pattern.

Programme of Work:

7. The physical programmes to which attention is to be given during the Fourth Plan will remain broadly the same as in the previous plans, viz., irrigation, soil conservation, land reclamation, fertilisers and manures, improved seeds, plant protection, improved agricultural implements, etc.

8. The targets under each of these physical programmes and the additional potentials of production to be achieved are indicated in the following table. As has been indicated earlier, the anticipated level of foodgrains production by the end of the Third Plan is 54 lakh tons. With the additional production of 23 lakh tons by the end of the Fourth Plan the level of foodgrains production at the end of the Fourth Plan is expected to be 77 lakh tons.

TARGET OF ANNUAL FOODGRAINS PRODUCTION AT THE END OF THE FOURTH PLAN PERIOD (1970-71)

Serial No.	Programmes	Third Plan (000' Acs.)		Fourth Plan Physical targets (000' Acs.)	Additional over Third Plan (000' Acs.)	Yardstick used	Additional production potential (000' tons)
		Target	Anticipated				
1	2	3	4	5	6	7	8
I	IRRIGATION					Per Acre	
	(a) Major Irrigation	739.4 (821.5)	560.7 (623.0)	1,620.0 (1,800.0)	1,620.0 (1,800.0)	0.20 ton	324.0
	(b) Minor Irrigation	288.0 (320.0)	323.5 (359.4)	450.0 (500.0)	450.0 (500.0)	0.20 ton	90.0
II	(a) Soil Conservation.	270.0 (300.0)	117.3 (130.3)	360.0 (400.0)	360.0 (400.0)	0.05 ton	18.0
	(b) Dry Farming	450.0 (500.0)	180.0 (200.0)	450.0 (500.0)	450.0 (500.0)	0.05 ton	22.5
III	Land Reclamation	7.2 (8.0)	7.2 (8.0)	210.0 *(300.0)	210.0 (300.0)	0.25 ton	52.5
IV	Extension of area through multiple cropping.	2,800.0 (4,000.0)	3,150.0 (4,500.0)	4,900.0 (7,000.0)	1,750.0 (2,500.0)	0.25 ton	350.0

Serial No.	Programmes	Third Plan (000' Acs.)		Fourth Plan Physical targets (000' Acs.)	Additional over Third Plan (000' Acs.)	Yardstick used	Additional production potential (000' tonr)
		Target	Anticipated				
1	2	3	4	5	6	7	8
V	CONSUMPTION OF CHEMICAL FERTILISER					Per Acre	
	(a) Nitrogenous ..	35.0 (70.0)	50.0 (100.0)	250.0 (500.0)	200.0 (400.0)	2 ton	400.0
	(b) Superphosphate	12.5 (25.0)	12.5 (25.0)	175.0 (350.0)	162.5 (325.0)	1 ton	162.5
VI	Area under Improved seeds.	6,200.0	6,200.0	7200.0	1,000.0	0.10 ton	100.0
VII	MANURES						
	(a) Compost (Urban and Rural).	8400.0 (14,000.0) tons	3600.0 (6,000.0) tons	8400.0 (14,000.0) tons	4800.0 (8,000.0) tons	0.025 ton	120.0
	(b) Green manuring	7000.0	5000.0	7000.0	2,000.0	0.99 ton	180.0
VIII	OTHER MEASURES						
	Change of land use pattern.	..	..	1,000.0	1,000.0	0.10 ton	100.0
	Plant Protection and Improved Practices.			20 per cent of gross potential		..	383.9
							1,919.5
							2,303.4

NOTE—Figures in brackets indicate gross targets.

* Includes reclamation of culturable waste in both private and public sectors.

Under items I & II 90 per cent of the area has been assumed to be under foodgrains.

Ditto III & IV 70 per cent ditto

Ditto V & VII 50 per cent and 60 per cent of the target respectively have been assumed to be for foodgrains.

Financial Outlay—

9. The broad pattern of proposed Financial Outlays on Agricultural Production programmes is indicated below :—

	Rs.
I. State Farms ..	4.00 crores
<i>II. Supply Schemes—</i>	
1. Improved seeds, seed certification, cold storage, etc.	1.50 Cores
2. Plant protection ..	2.00 „
3. Fertilisers and Manures ..	0.25 crore
4. Crop competition and others ..	0.25 „
5. I.R.C. and I.A.D.P. ..	4.00 crores
6. Improved Implements and Machinery ..	1.50 „
	<hr/> 9.50 crores
<i>III. Commercial Crops—</i>	
1. Sugarcane ..	1.00 crore
2. Jute ..	0.60 „
3. Oil seed ..	1.50 crores
4. Horticulture Development ..	3.00 „
5. Fruit Preservation ..	2.00 „
6. Vegetable and Potato seeds ..	2.50 „
7. Coconut, Arecanut and other schemes ..	0.40 crore
	<hr/> 11.00 crores
<i>IV. Education, Extension and Training Research and Statistics—</i>	
1. Extension and training ..	1.50 crores
2. Agricultural Education and Training ..	3.00 „
3. Research Schemes ..	1.50 „
4. Information and Statistics ..	1.00 „
5. Administration and Building ..	2.00 „
	<hr/> 9.00 crores
Total—Agricultural Production ..	<hr/> 33.50 crores



10. The total requirement of agricultural credit to achieve the agricultural targets indicated above in para. 4 has been roughly estimated at about Rs. 50 to 55 crores. The co-operative organisation is expected to handle about Rs. 34 crores. For the balance of Rs. 15 to 20 crores required mostly for fertilisers, a complementary line of credit will have to be laid.

(2) LAND DEVELOPMENT

Land Reforms:

The Orissa Land Reforms Act, 1960 has not yet come into force pending finalisation of certain important amendments to the Act which are now before the Legislature. It will take some time to prepare the rules and instructions under the Act for the implementation of the land reforms measures. It is expected that the work in connexion with acquisition of ceiling surplus lands and their disposal will be taken up in the second year of the Fourth Plan in case the Act and rules come into force from the beginning of the Fourth Plan. An outlay of Rs. 2.50 crores has been provided in the Fourth Plan for entertainment of additional staff required for implementing land reform measures and acquiring ceiling surplus lands besides payment of compensation.

2. The Act provides for settlement of ceiling surplus land with persons on payment of cost. Some receipts will accrue on account of disposal of the ceiling surplus lands. It is estimated that about 5 per cent of the land can be settled by the end of the second year, 10 per cent in the third year, 15 per cent in the fourth year and 20 per cent in the fifth year. The total receipt during the Plan period is estimated at Rs. 150 lakhs.

Land reclamation including tractorisation:

3. There are large tracts of under-developed land in the districts of Kalahandi, Bolangir and Sundargarh. On account of labour shortage there has been persistent demand for mechanisation of cultivation in the areas. With a view to intensify mechanised cultivation the scheme for land reclamation and hiring of tractors was put into operation in the Third Plan in Kalahandi district on pilot basis. The scheme has shown good result and it is proposed to extend it to the other two districts during the Third Plan. During the Fourth Plan it is proposed to extend the programme to other districts. An outlay of Rs. 1.50 crore has been proposed under the programme.

Settlement of landless agricultural labourers:

4. A new scheme for settlement of landless agricultural labourers has been taken up under the Centrally sponsored programme in the Third Plan. Government of India provide

assistance at the rate of Rs. 1,250 per family towards reclamation and resettlement. The entire cost of reclamation is treated as grant to the landless agricultural labourers and shared between the Government of India and the State Government equally. In the Third Plan it was proposed to resettle 10,000 landless families. As a first step survey of culturable waste lands has been taken up to locate suitable blocks. By the end of the Third Plan it is expected that about 2 lakh acres of land will be surveyed. The progress of resettlement has been slow as individual labourers are unable to undertake the reclamation work through their own resources and departmental reclamation has to be taken up. During the Fourth Plan it is proposed to continue the programme and expand it to other districts for which an outlay of Rs. 50 lakhs has been provided.

5. Besides, a scheme for resettlement of landless workers has been undertaken in the Third Plan. Under the scheme, Farming Societies have been organised and financial assistance in shape of loan and subsidy is given to these societies for meeting the reclamation cost, cultivation expenses and managerial subsidy. In the Fourth Plan it is proposed to locate a larger number of farming societies and to expand the programme.

Land Development Corporation :

6. This is a new scheme sponsored by the Government of India under which a Land Development Corporation is proposed to be set up for reclamation and cultivation of waste land primarily for growing export-oriented crops. The details of the programme are being finalised and an outlay of Rs. 1 crore is provided during the Fourth Plan for the State's participation in the proposed Corporation.

(3) MINOR IRRIGATION

The State has large physical potentialities for development of Minor Irrigation. The Third Plan outlay for Minor Irrigation under the Agriculture Sector was Rs. 304.00 lakhs which has been increased to Rs. 439.78 lakhs with a view to step up agricultural production programme. This excludes the provision of Rs. 374.00 lakhs under the Community Development Sector. Against this provision the physical target under both the sectors was kept at Rs. 3.20 lakhs under the acres of additional area over and above 2.77 lakh acres achieved by the end of the Second Plan. But with this provision it is now hardly possible to bring more than 2.94 lakh acres under Minor Irrigation mainly on account of increase in the cost of the projects. If additional funds are made available it will be possible to raise the target to 3.59 lakh acres. The outlay has been raised by Rs. 100 lakhs and the anticipated expenditure both

under the Agriculture and Community Development Sectors by the end of the Third Plan will be Rs. 853·00 lakhs. If a further amount of Rs. 100 lakhs is provided it will be possible to achieve a target of 3·59 lakh acres of additional area. Out of this 2·39 lakh acres relate to Agriculture Sector and 1·20 lakh acres to Community Development Sector. Considering the number of projects on hand and the requirement of funds to complete them it has been estimated that the present provision will be inadequate and about Rs. 237·00 lakhs will spill over into the Fourth Plan.

2. In the Fourth Plan the Minor Irrigation Programme is proposed to be further accelerated to step up food production programme. An outlay of Rs. 18 crores has been provided with a physical target of 5 lakh acres of additional area to be irrigated. This includes an outlay of Rs. 4 crores under the Community Development Sector. The break-up is broadly as follows :—

	Outlay	Target
Flow Irrigation ..	Rs. 12·00 crores	3 lakh acres
Lift Irrigation ..	Rs. 6·00 crores	2 lakh acres

3. Out of Rs. 12 crores under Flow Irrigation, Rs. 7 crores will be required for renovation and improvement of the existing derelict projects, Rs. 4 crores for taking up new projects and Rs. 1 crore for drainage, embankment and flood protection work. Thus, the outlay in the Fourth Plan has been increased from Rs. 853·00 lakhs to Rs. 1,800·00 lakhs compared to the increase from Rs. 17,000 lakhs to Rs. 45,000 lakhs on All-India basis over the Third Plan outlay.

4. In choosing the projects and drawing up the programme of work, priority has been given to the construction of the distributory systems. Experience shows that the utilisation of the irrigation potential created has been slow due to lack of proper distribution system and maintenance. Outlets are being provided for blocks of 50 to 100 acres for providing irrigation water and statutory provision has been made for construction and maintenance of the field channels which has been made obligatory on the beneficiaries. These are proposed to be intensified and carried out more systematically during the Fourth Plan. It is proposed to concentrate work in the areas having sufficient irrigation facilities instead of spreading out resources thinly on too many projects. A phased programme has been drawn up to take up and complete irrigation projects which are in advance stage of construction so as to secure benefits in the shortest time. The agricultural needs have not been fully co-ordinated with the utilisation of irrigation facilities. It is, therefore, proposed to work out an integrated and co-ordinated programme and initiate "project approach". The object is not only to complete the projects in all respects but also provide

ancillary steps necessary for securing optimum benefits in the quickest possible time by way of providing the various inputs of production and the necessary organisation, materials, equipments, services and credit.

5. A greater insistence has also been laid on thorough investigation and careful preparation of plans and estimates for formulation of new schemes. At present there is one subdivision in each district for investigation and maintenance of Minor Irrigation projects. These subdivisions are not adequately staffed and equipped for carrying out investigation. The existing subdivisions will be properly equipped and new divisions created for carrying out efficient investigation. In the programme for investigation priority will be given to the backward districts and areas where large potentialities exist.

6. Lift irrigation on a large scale is a comparatively new development in the State. The exploratory tube-well organisation of the Government of India as well as the Agricultural Engineering Section of the State Directorate of Agriculture have proved that large tracts in the coastal areas are suitable for installing deep tube-wells and filter point tube-wells at shallow depths. Direct pumping from rivers and coastal creeks has also been proved to be feasible and economic. Besides, a study of the water resources of the Hirakud system and the lie of the lands on the other side of the contour canals and some high level lands outside the command of minors and other outlets has shown that large compact areas can be benefited without much cost by installing lift appliances. At present about 250 lift irrigation points in 28 blocks have been taken up. It is expected that about 60,000 acres will be covered under Lift Irrigation by the end of the Third Plan. During the Fourth Plan the target is to provide 2 lakh acres under the lift irrigation which will include construction of new wells, tube-wells, filter point tube-wells and direct pumping from perennial streams and rivers. An interesting feature of the Lift Irrigation programme is the replacement of masonry pump houses by barges in the river pumping stations. This development has contributed to the greater speed in the execution of the scheme and has proved to be popular. It is proposed to integrate the Lift Irrigation programme with the Rural Electrification programme so that a large number of electrical pumping sets will be operated and water supplied for irrigation in the vast flooded tracts and high lands in the State at considerable low cost.

7. Successful lift irrigation involves more meticulous management of water use and better co-operation among the users. So formation of Lift Irrigation Co-operative Societies has been encouraged so that all cultivators joining the co-operatives will be able to pay for the capital cost of the installation and maintenance.

These co-operatives will be able to adopt suitable cropping pattern, improved practices and economic and co-operative methods of distribution and use of water. The Lift Irrigation Co-operatives are being stabilised and it is proposed also to utilise the resources of the Agricultural Refinance Corporation and the Apex Land Mortgage Bank of the State to finance the societies, to the extent possible.

(4) SOIL CONSERVATION

Out of the total area of 3,84,87,000 acres in the State, it is estimated that about 76,97,400 acres would need intensive soil conservation measures. Comprehensive soil conservation programme was started in the Second Plan period. By the end of the Third Plan it is expected that 2,46,350 acres would be covered. This shows that only a fringe of the problem has been tackled so far and bulk of the problem areas remain to be dealt with during subsequent Plan periods.

2. During the Fourth Plan period it is proposed to organise soil conservation work on watershed basis and special emphasis will be placed on schemes that would yield immediate benefit in terms of additional food, fodder and fuel production. It is proposed to cover 10.05 lakh acres of land under soil conservation measures under different heads at a total cost of Rs. 21.05 crores. The break-up is as follows :—

	Proposed outlay	Proposed physical target
	Rs. in lakhs	Lakh acres
<i>State Sector</i>		
Soil Conservation Programme under Agriculture Sector.	800.00	2.90
Soil Conservation Pro- gramme under C.D. Sector.	200.00	1.30
Soil Conservation Progra- mme under T. & R.W. Sector.	35.00	0.20
<i>Central Sector</i>		
(a) Training Programme.	15.00	..
(b) Soil Conservation in river catchments.	890.00	4.55
(c) Soil Conservation for control of shifting cultivation (T. & R.W. Programme).	165.00	1.10
Total	2,105.00	10.05

3. The broad lines of the Soil Conservation Programme during the Fourth Plan period are as follows :

STATE SECTOR

Agricultural Sector—Soil Survey:—

4. Soil data are essential for land use planning relating to efficient crop and fodder production and afforestation. During the Fourth Plan extensive soil survey is proposed to be taken up as prerequisite for planning and execution of Soil Conservation Programme on watershed basis. The soil survey will be confined to the watersheds that will be treated under soil conservation measures and the ayacut areas of irrigation projects and package districts. It is proposed to survey 25 lakh acres at a cost of Rs. 30 lakhs during the Fourth Plan.

Soil Conservation on water shed basis ;

5. Execution of a single item like contour bunding or tree planting, etc., is not very useful. The programme has therefore, to be comprehensive on watershed basis. The watershed management would, therefore, include contour bunding and terracing of agriculture land, protection of gullies by structural and vegetation measures, engineering structures and proper management of grass and timber land. An outlay of Rs. 270 lakhs has been kept to organise soil conservation work on watershed basis so as to cover 1.35 lakh acres under different soil conservation measures during the Fourth Plan.

Grass land management :

6. Growing of grass on the eroded land has been taken up for controlling erosion and providing fodder to the dairy farms in the Third Plan and 5 districts have been covered. During the Fourth Plan it is proposed to intensify and extend the above programme to the remaining 8 districts. An outlay of Rs. 100 lakhs has been provided to cover 50,000 acres under this programme.

Soil Conservation in eroded land :

7. There are large chunks of eroded waste lands in the State which are unsuitable for agriculture. It is proposed to put these areas under crops like cashew-nut, Sabai, Sisal, etc., to prevent soil erosion and to make the land productive and useful. 50,000 acres of the above type of eroded lands are proposed to be covered, at a cost of Rs. 100 lakhs during the Fourth Plan.

Reclamation of saline and alkaline soils :

8. 18,000 acres of crop land are now unsuitable due to higher salinity. During the Fourth Plan period, it is proposed to reclaim 5,000 acres of saline land at a cost of Rs. 15 lakhs by constructing ring bunds, protective embankments, introduction of suitable agronomical practices, etc.

Conservation Irrigation :

9. The total irrigated area commanded by the Hirakud system is 3·8 lakh acres. As most of the area has uneven topography even distribution of water is not possible by normal irrigation methods and lead to water logging at places. It is, therefore, proposed to develop conservation irrigation system like levelling and introduction of suitable system of irrigation like contour furrow irrigation, etc., over 50,000 acres.

Research and Training :

10. Intensive research work and training programme are proposed to be taken up during the Fourth Plan. New techniques of crop production particularly in the high lands will be evolved and a quantitative evaluation of the utility of different soil conservation measures will be undertaken. The research programme will be broadly organised in four Regional Centres, namely, Koraput, Rajgangpur, G. Udayagiri and Keonjhar at a cost of Rs. 20 lakhs.

11. The training programme is proposed to be intensified in the Fourth Plan to meet the requirement of large technical staff. It is estimated that about 2,000 Junior Soil Conservation Assistants or Surveyors will be necessary by the last year of the Fourth Plan. For this purpose, it is proposed to set up four Soil Conservation Training Schools in addition to the existing two at a cost of Rs. 80 lakhs.

Tribal & Rural Welfare Programme :

12. A sum of Rs. 35 lakhs would be required to organise soil conservation work with particular emphasis on rationalisation of shifting cultivation over 0·20 lakh acres during the Fourth Plan.

Community Development Programme :

13. In addition to the 64 T. D. Blocks of the Third Plan and 4 S. M. P. Blocks of Second Plan, about 45 T. D. Blocks will be opened during the Fourth Plan. These T. D. Blocks are located in hilly areas and suffer from acute soil erosion due to misuse of the land. Work in 40 T. D. Blocks and 54 non-tribal blocks have been started in the Third Plan and during the Fourth Plan 200 blocks are proposed to be covered at a cost of Rs. 200 lakhs. The area to be covered will be Rs. 1·30 lakh acres.

CENTRAL SECTOR

14. During the Third Plan soil conservation in the river valley catchment of Hirakud and Machkund were taken up. It is proposed to continue the programme in the Fourth Plan. Besides, work in the catchment areas of 5 new projects which have either been completed or are under construction viz., Salandi-Anandapur Project, Budhabalanga Dam Project, Manibhadra Project, Brahmani and

Baitarani Projects will be taken up. It is proposed to cover 4.55 lakh acres at a cost of Rs. 890 lakhs during the Fourth Plan period.

Soil Conservation for Control of Shifting Cultivation :

15. To rationalise shifting cultivation over an area of 1.10 lakh acres and to settle 22,000 families at present practising shifting cultivation an outlay of Rs. 165 lakhs has been proposed to be provided under the Central Sector Programme.

16. Under the Central Sector a Soil Conservation Training School proposed to be set up at Bhubaneswar as part of advance action will be continued at a cost of Rs. 15 lakhs to train 400 Soil Conservation Assistants.

(5) ANIMAL HUSBANDRY & DAIRYING

The main objective of the State's Fourth Plan proposals in regard to Animal Husbandry and Dairying is to increase the production of milk, eggs and meat not only to meet the demands of the growing towns of the State but also to increase consumption in rural areas and increase the incomes of the agriculturists. In order to achieve this objective, it is proposed to take up the Animal Husbandry and Dairy programmes in a concerted and co-ordinated manner in selected areas taking into account the potentials of Development therein.

2. Some work has been started in this direction in the Third Plan, but no substantial progress could be achieved partly because of inadequate resources available, the outlay in the Third Plan being only Rs. 357.51 lakhs. Collection and pasteurisation of milk has been started for supply to the towns of Cuttack and Bhubaneswar. The Pasteurisation Plant at Phulnakhara under the Cuttack Milk Union Scheme is expected to handle about 1.13 million litres of milk by the end of Third Plan, but little Dairy Extension work has been done. It is only under the Crash Programme outside the Plant that attempts are being made to take up cattle development work and dairy extension on an intensive scale in the milk shed area attached to this Plant. It is again under the Crash Programme that work has been initiated for Intensive Egg and Poultry Production-cum-Marketing and Sheep rearing for production of mutton. Work begun in this direction will be intensified during the Fourth Plan and such work will be undertaken in other selected areas.

3. To intensify and maintain such programmes, breeding facilities, feed and fodder resources and disease control measures have to be undertaken and arrangements will have to be made for collection, transportation, processing and marketing of milk in the growing towns. Research and education will go side by side.

4. During the Fourth Plan it is proposed to collect and pasteurise 10,000 litres of milk from the milk shed area under the Cuttack Milk Union Scheme for supply to the towns of Cuttack, Bhubaneswar and Puri. Arrangement will be made for the first time to collect milk from the Bari-Sujanpur area for supply to the towns of Jajpur, from Kujanga area for supply to Paradeep, from Sembiliguda area where cross breeding work is being taken up with Jorsy bulls for supply to the Aero-Engine township at Sunabeda, from Chiplima area for supply to the towns of Sambalpur and Rourkela and from Berhampur area for supply to the town of Berhampur. It will be possible to supply about 50 million litres of milk to the various towns by this programme. The four small Livestock Breeding Farms existing at present in the State are expected to produce 1.9 million litres of milk during the Third Five-Year Plan. It is proposed to produce 10 million litres of milk during the Fourth Plan by suitable expansion of these farms and setting up some new farms which will also supply bulls and cows for extension work.

5. The annual egg production in the State by the end of the Third Plan will be of the order of 190 million against the requirement of 3,600 million at the rate of about 1 egg per head of population. It will not be possible to reach this level of production during the Fourth Plan period. A target of 15 eggs per head per annum has been aimed at. The existing Poultry Farms and the Scheme of Intensive Egg and Poultry Production-cum-Marketing are expected to produce about 20,000 eggs per day by the end of the Third Plan. This rate will be stepped up to 75,000 eggs per day during the Fourth Plan by implementing the Intensive Egg Production Schemes in new selected areas and by expanding the existing Poultry Farms.

6. Emphasis will be given in the Fourth Plan to Sheep Development for which the work started under the Crash Programme during the Third Plan period will be further intensified.

7. For the above programme an outlay of Rs. 15 crores is necessary, the break-up of which is given below. The schemes have been classified in two groups namely, spill-over and expansion of continuing units, and new schemes.

SPILL-OVER & EXPANSION OF CONTINUING PROGRAMMES

Animal Husbandry :		(Rs. in lakhs)
Breeding	..	296.00
Piggery development	..	5.00
Sheep, Wool and Goat	..	20.00
Poultry development		73.00
Veterinary aid	..	58.00
Animal Husbandry Research and education.	..	25.00
Dairying	..	45.00

NEW SCHEMES

Animal Husbandry:		(Rs. in lakhs)
Breeding	..	398·00
Feed and Fodder Development..		25·00
Sheep, Wool and Goat	..	45·00
Piggery development	..	17·00
Poultry development	..	111·00
Veterinary aid	..	136·00
Research, Education and Statistics.	..	99·00
Dairying	..	147·00

Total	..	1,500·00 lakhs

(6) FORESTS

The total forest area of the State is estimated to be 25,358·21 sq. miles which accounts for 42 per cent of the total area of the State. But the major portion of the forest area is covered by protected forests, Khesara forests and ex-Zamindari and private forests which have low economic value. 60 per cent only is well demarcated and supports forests growth of reasonable value. Even within the demarcated forests 80 per cent of the available species are utilised merely as firewood and therefore the commercially valuable forests are few. The main objective under "Forests" is to develop and scientifically exploit as much of the high income potential as possible. Emphasis is, therefore, being laid on survey of forest resources, demarcation of forest areas, plantation of fast growing species, development of forests of commercial importance, improved methods of logging, farm forestry afforestation and enriching of depleted forests and provision of better communication facilities. By the end of Third Plan, plantation of different species over 122,083 acres, demarcation and survey of 12,209 miles and 5,787 miles of forests and construction of 1,530 miles of new forest roads would have been achieved.

2. A programme of the order of Rs. 7 crores has been prepared for the Fourth Plan and the physical targets aimed at are as follows:

Economic Plantation:

3. The programme is to increase the area of stable productive forests by enriching the present low stocked forests and afforestation of barren lands. Quick maturing species like Casuarina, Cashew and Eucalyptus are chosen

and are being planted in coastal region. In moist Sal and Teak Zones, reorganisation of these species is being promoted. Areas which have miscellaneous tree growth are also proposed to be converted to Sal or Teak forests wherever possible. During the Fourth Plan it is proposed to cover an area of 125,000 acres with an outlay of Rs. 200·00 lakhs.

Rehabilitation of degraded forests:

4. Due to irregular fellings and mismanagement over a long period several forests in ex-State and ex-Zamindary areas have been depleted badly and are in no position to meet the demand of the people for timber and firewood. During the Fourth Plan it is proposed to take up plantation for rehabilitation of degraded forests over 45,000 acres at a cost of Rs. 72 lakhs.

Minor Forest Produce:

5. The target for the Fourth Plan is to take up plantation over 5,000 acres at a cost of Rs. 10 lakhs.

Demarcation and Survey:

6. There are vast forest areas lying undemarcated and not under management which are fast depleting. To consolidate these areas it is proposed to demarcate and survey 17,000 miles during the Fourth Plan at a cost of Rs. 16·50 lakhs.

Communication:

7. For better and quicker extraction of produce from forests, adequate communication facilities are necessary. It is proposed to take up construction of 2,500 miles of new roads and improve 1,000 miles of existing roads during the Fourth Plan at a cost of Rs. 155·00 lakhs.

Forest Corporation:

8. The Orissa Forest Corporation which has been established for undertaking proper and scientific exploitation of forest resources of the State has taken up operations in Bonai Division, Nagra area of Sundargarh Division, Narsingpur range of Athgarh Division and Jeypore Division during the Third Plan. Besides, it is also entrusted with the task of clearing the area to be submerged by the Balimela project. The area of operation of the Corporation will cover the entire State in the Fourth Plan period. During the Third Plan Rs. 75 lakhs would be subscribed by Government towards the share capital of the Corporation and during the Fourth Plan it is proposed to provide Rs. 100·00 lakhs for this purpose.

9. Besides the above major programmes, other programmes like extension forestry, preparation of working plans, forest research, training of personnel, nature conservation, etc., will also be taken up during the Fourth Plan.

(7) FISHERIES

Orissa has abundant resources for development of Fisheries. The Third Plan aims at achieving the maximum increase in fish production by application of improved techniques and development of marine and inland fisheries. During the Fourth Plan, it is proposed to intensify and expand the programme further. The outlay in the Fourth Plan is proposed to be Rs. 8 crores which is nearly three-fold of the Third Plan outlay. Broadly, the distribution of outlay on the programmes is as follows:

	(Rs. in lakhs)
(1) Marine and Estuarine Fisheries ..	465.00
(2) Inland Fisheries ..	260.00
(3) Research and Training ..	55.00
(4) Information and Publicity ..	10.00
(5) Supervision ..	10.00

Marine and Estuarine Fisheries:

2. Orissa with a coast line of over 250 miles has a large scope for development of marine fisheries. The present level of production which is very low, is proposed to be stepped up substantially. For this purpose, it is proposed to have a fleet of 10 steel trawlers, 25 wooden trawlers and 150 gill netters for intensive marine fishing. In addition, 3 fish meal and 2 fish protein plants besides 5 freezing plants and 5 ice factories-cum-cold storages are proposed to be set up. The production will reach 9,000 tons during the Third and Fourth year after which it will go up by 750 tons per year to a maximum of 15,000 tons by the 12th year. Assistance will be rendered directly to marine fishermen in shape of crafts, gears and cash. Ancillary industries will also be developed like net weaving and rope manufacturing plants. It is expected that such assistance to fishermen will yield an additional production of 5,000 tons per annum. It is also proposed to develop shallow areas of the Chilka lake and the creeks and pockets of estuaries for intensive development of brackish water fisheries on systematic and controlled methods. About 2,000 acres are proposed to be reclaimed and developed which will yield about 250 tons per annum.

Inland Fisheries:

3. Inland fisheries too in Orissa have large potential for expansion. The tanks have been transferred to the Grama Panchayats and loan assistance is being given. Nursery space and stocking space will be developed and expanded to increase supply of fingerlings. Production of fries is an essential item of the programme. It is proposed to establish a fish breeding centre with adequate number of stocking ponds and well-laid-out breeding ground and hatchery. Spawn production is expected to reach 75 crores per year, by the end of the Fourth Plan. It is also proposed to develop fisheries in 5,000 acres in the periphery of Hirakud Reservoir through the construction of dams and dykes and a series of nurseries and rearing tanks. The catches are estimated to be 560 tons per annum from the third year onward. Besides, intensive pisciculture in minor reservoirs and irrigation projects is proposed to be taken up in another 5,000 acres through reclamation. By the end of the Plan period the annual production will reach 600 tons. Systematic and timely marketing of inland fish by proper procurement from scattered water areas in different districts and transporting them in insulated vans is proposed. Two cold storage-*cum*-ice plants have already been set up for fish preservation. Substantial loan assistance is also proposed to be given to the Grama Panchayats for intensive pisciculture and reclamation.

Research and Training:

4. To develop marine fishing it is proposed to conduct exploratory and experimental fishing operation along the coasts with a medium sized vessel with marine devices, freezing facilities and equipments for biological and hydrographical observations. For inland fisheries it is proposed to have applied research of intensive fish production by fertilising fresh water with manures and fish seeds and exploitation of such water with the help of marine fishing gears and electrical equipments. For this purpose, a full-fledged training centre is proposed to be set up at Kausalyaganga with necessary laboratory facilities.

Fisheries Development Corporation:

5. The establishment of Fisheries Development Corporation is a major development scheme. The Corporation will assist in undertaking scientific promotion of pisciculture on extensive scale through development of fish seeds nurseries, intensive fish farming and deep sea fishing and organising marketing and processing units. The Corporation will also help the Grama

Panchayats and the local bodies to develop inland fisheries through supply of improved fish seeds, timely manuring operations, supply of fishing and other equipments and preservation units. The Corporation will work as a commercial undertaking and necessary share capital and loans will be provided to implement the various schemes. These funds are included in the outlays indicated in the above paras. against inland, estuarine and marine fishing.

(8) WAREHOUSING AND MARKETING

The programmes in the field of Warehousing and Marketing include regulation of markets, establishment of licensed warehouses, market intelligence, grading and standardization, training of personnel and market survey and extension. These programmes are proposed to be strengthened and expanded during the Fourth Plan with an outlay of Rs. 90.00 lakhs. The schemewise distribution of the outlay is as follows :

	(Rs. in lakhs)
(1) Regulation of markets ..	39.53
(2) Improvement of market intelligence.	10.10
(3) Grading and standardization ..	6.84
(4) Training of personnel ..	2.53
(5) Market survey and extension ..	6.00
(6) Share capital to State Warehousing Corporation.	25.00
Total ..	90.00 lakhs

2. By the end of the Third Plan twenty-seven markets will have been brought under regulation. It is proposed to bring thirty-three markets under regulation during the Fourth Plan period. Thirty centres for market intelligence will have been brought under the integrated scheme by the end of the Third Plan. During the Fourth Plan it is proposed to extend the scope and coverage to another thirty-three centres. At present there is no agency for collection of farm (harvest) prices. The collection of these data is necessary for assessing share of the producers and estimating the national income. It is, therefore, proposed to have whole-time reporters at each of the forty rural centres during the Fourth Plan.

3. Grading under Agmark is done under the Agricultural Produce (Grading & Marketing) Act, 1958 of Government of India. By the end of the Third Plan, one State Laboratory, one Agmark Emporium, eight Grading Units and one Supervisory Grading Centre will have been opened. Grading of agricultural commodities has not made appreciable progress due to want of adequate laboratory facilities. It is, therefore, proposed to set up 6 Regional Supervisory Laboratories, 52 Grading Units and 2 Agmark Emporia in the important consuming centres during the Fourth Plan.

4. Adequate attention is also proposed to be paid to training of marketing personnel. This is necessary for collection of market information, study of market problems, analysis and processing of data and undertaking grading of agricultural produce.

5. Establishment of warehouses is the function of the State Warehousing Corporation. The programme for the Third Plan is to open 15 warehouses. During the Fourth Plan it is proposed to set up more units for providing scientific storage facilities. It is proposed to provide an additional amount of Rs. 25 lakhs as share capital to the State Warehousing Corporation during the Fourth Plan.

(9) CO-OPERATION

The co-operative movement is proposed to be strengthened and extended in the Fourth Plan to sustain rapid advances in agricultural production, small industry, processing, marketing, distribution and supplies. An outlay of Rs. 10 crores as against an anticipated Third Plan outlay of Rs. 2.35 crores is being proposed for the Fourth Plan period under the following programmes :—

	(Rs. in lakhs)
1. Agricultural credit (Short and medium-term)	200.00
2. Long-term credit	.. 60.00
3. Marketing	.. 150.00
4. Processing	.. 470.00
5. Co-operative farming	.. 15.00
6. Co-operative training and publicity	45.00
7. Labour Contract Co-operative Societies.	17.00
8. Departmental organisation	.. 40.00
9. Miscellaneous	.. 3.00

2. The coverage likely to be achieved by the end of the Third Plan is 50 per cent of agricultural families. During the Fourth Plan the target is to cover 75 per cent of agricultural families with the total membership of 20 lakhs.

3. The action programme for reorganisation of Co-operative Credit Societies has been drawn up in consultation with the Panchayat Samitis and Central Banks to develop small societies into viable units, amalgamate uneconomic ones not capable of expansion with nearby viable societies, liquidate defunct and dormant societies and organise new ones. The action programme is now under implementation. At the end of Fourth Plan it is expected that each society will be a viable unit, comprising a population of 3,000 to 3,500 and covering an area of 5 to 6 square miles with a turn-over of Rs. 1 lakh or more. It is expected that by the end of the Fourth Plan the State will have about 4,000 revitalised Primary Credit Societies.

Short and Medium-term loan:

4. The Third Plan target for short and medium-term credit is Rs. 15 crores. There may be a slight short-fall on account of difficulties in obtaining reimbursement of medium-term loans from the Reserve Bank of India. For the Fourth Plan the target is Rs. 34 crores out of which Rs. 10 crores will be at the Primary Societies level, Rs. 14 crores at the Central Banks level and the rest at the level of the Apex Bank.

5. To achieve the target of short and medium-term credit of Rs. 34 crores, it is proposed to provide Rs. 40 lakhs by way of subsidy to build up cadres of Bank Supervisors and Secretaries of the Primary Societies so that each society will have a properly trained and qualified Secretary which will enable the society to rapidly increase its turn-over and become self-sufficient. It is also proposed to open branches of the Central Co-operative Banks to cover all subdivisional headquarters and important places besides locating a new Central Co-operative Bank at Rayagada. The provision for out-right grant to Bad Debt Reserve Fund for Primary Credit Societies and Central Banks is proposed to be suitably raised. In addition, it is proposed to strengthen the Credit Stabilisation Fund at the Apex level for providing help to Central Co-operative Banks in distress. Adequate provision will also be made under Relief and Guarantee Fund.

Long term credit:

6. The target for the Third Plan was Rs. 2 crores outstanding but we are likely to reach Rs. 3 crores. A target of Rs. 10.50 crores has been proposed for the Fourth Plan.

To achieve this target, it is proposed that the State Government will contribute 5 per cent on debentures and to the extent of 25 per cent on special debentures issued by the Orissa Provincial Land Mortgage Bank. There will be about 37 Land Mortgage Banks by the end of the Third Plan. It is proposed to open 23 more banks during the Fourth Plan so as to cover all subdivisional headquarters and important places. The Regional Co-operative Marketing Societies are being expanded. By the end of the Third Plan there will be 45 such societies and it is proposed to locate 40 more societies during the Fourth Plan. Further it is proposed to make a suitable provision towards share capital for the 45 existing Regional Marketing Societies.

Co-operative Marketing:

7. The following schemes are being proposed :—

- (1) Establishment of more Regional Co-operative Marketing Societies in order to cover all the Mandies.

Necessary assistance by way of share capital, loan-cum-subsidy for godowns and managerial subsidy should be provided.

- (2) Additional share capital contribution to existing Regional Co-operative Marketing Societies.
- (3) Additional share capital contribution to the Orissa State Co-operative Marketing Society.
- (4) Loans to the Regional Co-operative Marketing Societies for purchase of trucks.
- (5) Contribution to the Price Fluctuation Funds.
- (6) Loan-cum-subsidy for construction of godowns.

8. With the implementation of the above schemes, it is anticipated that marketing of agricultural produce other than sugar-cane will be of the level of Rs. 20 crores, at the end of the Fourth Five-Year Plan.

Processing:

9. It is proposed to expand the processing units on a large scale to supplement the Agricultural Production Programme. There is already one large sized Sugar Factory in the Co-operative Sector. It is proposed to set up 4 more such factories during the Fourth Plan for which an *ad hoc* provision of Rs. 1 crore has been made by way of participation by Government in

share capital. In addition, it is proposed to locate one Co-operative Jute Mill with 600 looms, 200 Co-operative Rice Mills, an Agricultural Implements Factory, 10 Cold Storages. A provision of Rs. 470 lakhs has been made for this purpose. Co-operative spinning mills are being provided for under handlooms.

Co-operative Farming:

10. The State Government are of the view that Co-operative Farming of the traditional type has not made appreciable progress. It is, therefore, proposed to introduce mechanisation in 100 acre farms so that the progress can be accelerated. A provision of Rs. 15 lakhs is proposed for this purpose.

Co-operative Training and Publicity:

11. The key to the success of Co-operation in the Fourth Plan lies in ensuring systematic training of members and office bearers of Co-operative Institutions and building up a cadre of competent managerial staff. There are at present 3 Training Institutes which are proposed to be expanded by 3 more during the Fourth Plan at a cost of Rs. 10 lakhs. In addition, it is proposed to form cadres of managerial staff for Central Banks, Regional Co-operative Marketing Societies and Consumers Stores and provide peripatatic training and co-operative propaganda and publicity units.

12. The experience in the Third Plan has shown that considerable progress can be made in setting up Labour Co-operatives. During the Fourth Plan, it is proposed to organise 100 new Labour Contract Co-operative Societies.

13. To perform the above tasks, considerable strengthening of the department will be necessary. This is proposed to be done so that schemes should not suffer for lack of administrative preparedness.

(10) COMMUNITY DEVELOPMENT

Originally, the State was delimited to 307 blocks. The Government of India subsequently agreed to the opening of 6 more blocks. Recently, one more block has been decided to be opened. Thus, by the end of the Third Plan, 314 blocks will be set up. In the beginning of the Fourth Plan, there will be 116 blocks in Stage I, 164 blocks in Stage II and 34 blocks in post-Stage II phase. By the last year of the Fourth Plan, the Stage I blocks will have reverted to Stage II and post-Stage II phase and there will be 145 blocks in Stage II and 169 blocks in post-Stage II.

2. Of these 314 blocks, 61 are Tribal Development Blocks in Stage I and 4 blocks are in Stage II. A block is now eligible for being declared as Tribal Development Block if 66 2/3rd per cent or more of its population consists of Scheduled Tribes. Since Government of India have now decided that a Tribal Development Block will at least consist of 50 per cent or more of Scheduled Tribe population, the State Government will be entitled to another 50 Tribal Development Blocks during the Fourth Plan.

3. From the beginning of the Third Plan increased stress has been placed on agricultural production. This has further been intensified after the emergency was declared in 1962. The main task of Community Development organisation has been to mobilise the rural community and the Extension Services for intensive efforts for increasing the agricultural production. In the Fourth Plan, the aim is to build up well equipped and fairly specialised Agricultural Extension Services, consolidate community development and planning at the district, block and village level, enable the Panchayati Raj institutions to assume larger responsibilities for planned development, harness local man-power and other resources and utilise them to the maximum extent to sustain the Agricultural Production Programme, ensure minimum amenities to the people and assist the weaker sections of the community. With this object in view the Fourth Plan outlay has been kept at Rs. 16.50 crores out of which in addition to the extension staff which is mostly for agriculture, Rs. 5.80 crores relate to Agriculture, Animal Husbandry and Irrigation programmes alone.

4. In achieving the progress in Agriculture and other fields of rural economy, systematic planning at the district, block and village level has been taken up. Since the Panchayat Samitis have been set up all over the State the main task of building up the production programme has been entrusted on these local bodies. The Panchayat plans are proposed to be integrated into district and State Plan. Panchayat plans have been formulated in selected villages. In the Fourth Plan, it is proposed to attempt preparation of village production plans for the entire State.

5. Emphasis has been laid on mobilisation of local resources and utilisation of the available man-power to support the production programme. The Rural Works programme for utilisation of man-power was introduced in the Third Plan and about 45 blocks will have been covered by the end of the Third Plan. During the Fourth Plan it is proposed to extend the programme to 100 more Community Development blocks.

6. One of the major objectives of the Fourth Plan is to strengthen, expand and intensify the training programme and build up well equipped specialised Agricultural Extension Services to achieve relative increase in agricultural production. During the Fourth Plan period the existing 6 Grama Sevak Talim Kendras will be expanded to meet the shortage, casualty and additional requirements on account of intensive Rice Cultivation Blocks and Package Programme. For the training of the Grama Sevikas the existing 3 Home Economics Training Centres will be continued during the Fourth Plan and the admission capacity increased considerably to meet the existing shortage and the requirements on account of bringing a large number of blocks under Applied Nutrition Programme. Besides it is proposed to provide Refresher's training to V. L. Ws. and Grama Sevikas after completion of 4 years of service in the field and higher training to about 20 per cent of the V. L. Ws to equip them adequately to tackle the Agricultural Production Programme. An important item of the training programme is to give specialised training to about 1.42 lakh Grama Sahayaks or Village Leaders at the rate of 3 from each village in improved agricultural methods and practices during the Fourth Plan. These Grama Sahayaks will be trained in the selected agricultural farms at the time of different agricultural operations of both Rabi and Kariff. These Grama Sahayaks will form the nuclei for dissemination and expansion of agricultural techniques and improved methods to the fellow cultivators. For the welfare of the weaker sections a programme of training for the members of the Mahila Samitis is also envisaged. All these training programmes accounts for an outlay of Rs. 1.7 crores during the Fourth Plan.

(11) VILLAGE PANCHAYATS

The Village Panchayats which form the basic units of self-Government have been organised throughout the State except a few villages in the scheduled districts and the submerged areas of the Hirakud Reservoir. About 48,000 villages with a rural population of 1.36 crore are already covered by 2,344 Grama Panchayats. Recently, it has been decided to reorganise the Panchayats on population coverage of 2,000 in tribal areas and 6,000 in other areas. It is expected that the total number of reorganised Grama Panchayats will go up to about 4,000 on this basis.

2. The broad objectives kept in view in preparing the programme for Village Panchayats are to augment the resources of the panchayats and develop them as self-sustained units, train up the Panchayat Secretaries and the non-official members to enable

them to manage the Panchayats more efficiently and to provide the minimum amenities to the Panchayats. With these objectives in view an outlay of Rs. 1.50 crore has been kept in the Fourth Plan against the Third Plan outlay of Rs. 0.72 crore. One of the major policies of Government is to enable every Panchayat to derive a substantial income from local resources. Accordingly, public properties have been transferred to the control and management of the Panchayats and financial assistance is being given by way of loan for various remunerative scheme.

3. Development of pisciculture is one of the important remunerative sources of income to the Panchayats. During the Second Plan period, Rs. 28.97 lakhs was given as loan to about 1,000 Grama Panchayats. During the Third Plan a provision of Rs. 28 lakhs has been made for this purpose and it is expected that about 1,000 Grama Panchayats will have been benefited by the end of the Third Plan. In the Fourth Plan period an outlay of Rs. 75 lakhs have been provided for sanction of loan to the Panchayats and it is expected that about 7,500 Grama Panchayats will be benefited. The other remunerative sources include income from markets, ferries, cattle pounds, street lighting, poultry and Dairy Farms, development of waste lands through afforestation and growing of orchards. Loan is given to the Panchayats for developing the sources varying from Rs. 500 to Rs. 2,000. In the Third Plan Rs. 10 lakhs has been provided and about 1,000 Panchayats will have been benefited. With a view to meet the requirements of a larger number of [reorganised Panchayats, it is proposed to provide Rs. 65 lakhs during the Fourth Plan under this programme.

Training Programme:

4. Originally, the training of Panchayat Secretaries was organised through seminars and seasonal training camps by the Orissa Co-operative Union. Subsequently, 6 departmental institutions were started in 1959-60 to make the training more comprehensive. By the end of the Third Plan about 2,200 Grama Panchayat Secretaries are expected to be trained for which an outlay of Rs. 5.70 lakhs has been made. In the Fourth Plan there will be need for training larger number of Grama Panchayat Secretaries as a result of the reorganisation of the Grama Panchayats. An outlay of Rs. 15 lakhs has been provided under the programme. In addition, the non-official members of the Panchayat Samitis, Sarpanches and Naib-Sarpanches are also being trained in order to enable them to manage the Panchayats more efficiently. About 12 Panchayati Raj Training Centres will have been set up by the end of the Third Plan, each centre having a capacity to train 780 members in a year. These centres will be continued during the Fourth Plan,

Amenities Programme :

5. Graingolas have been set up in each Grama Panchayat headquarters the object being to provide credit and services such as paddy loan, improved seeds, pesticides, fertilisers, etc., for the implementation of the Agricultural Production Programme. With the reorganisation of the Panchayats on reduced population coverage it will be necessary to set up larger number of graingolas in the Fourth Plan. With the increase in the functions of grain-gola it has become necessary to have separate office building for the Panchayats by setting up Panchayat Ghars. 50 per cent of the cost will be provided by Government as subsidy and the remaining 50 per cent will be found by the Panchayat from its own resources. In the Fourth Plan it is proposed to provide Rs. 50 lakhs under this programme against the anticipated expenditure of Rs. 5.66 lakhs in the Third Plan.

(12) IRRIGATION

Assured water-supply is the basis of agricultural planning. "Orissa has enormous water wealth in its many rivers which are fairly evenly scattered over the State. Between them, they carry a mean annual flow of nearly 121 million acre ft. or roughly one-tenth of the total run-off of the entire river system of India." Irrigation has, therefore, rightly continued to occupy the pride of place in Orissa's plans. Various estimates have been made of the irrigation potential of the rivers of Orissa through major and medium projects. The latest estimate is the one made by Dr. A. N. Khosla. According to this estimate, the gross potential of possible major and medium projects in Orissa is over 9 million acres. Only a small fraction of this potential has as yet been exploited.

2. At the beginning of the Third Plan, the potential of major and medium irrigation projects was 9.06 lakh acres gross. Utilisation was estimated at 7.02 lakh acres. The anticipated expenditure on major and medium irrigation schemes, during the Third Plan period is expected to be Rs. 25.2 crores. This included still over expenditure on Hirakud Stage I to the extent of Rs. 1.93 crores. The two other major schemes during the Third Plan period are, Delta and Salandi Irrigation Projects. An expenditure of about Rs. 9.9 crores is likely to be incurred on Delta and Rs. 6.9 crores on Salandi. In addition to the major projects, 9 medium irrigation projects were taken up during the Third Plan period. The expenditure on these schemes is likely to be Rs. 5.3 crores. Some preliminary work has also been done on the Anandapur Barrage and substantial work on investigation of projects. Work has also been started on an Engineering Research Institute. The likely achievements during the Third Plan period are—creation of additional potential of 5.64 lakh acres gross and extending the utilisation in 6.23 lakh acres (gross).

3. It has not been possible to complete any scheme in all respects during the Third Plan period. As a result, there is a large spill over expenditure during the Fourth Plan period. The spill over expenditure on the major irrigation schemes is expected to be about Rs. 34.9 crores. On the 9 medium schemes, the spill over is expected to be about Rs. 7.9 crores. Two of the medium irrigation schemes included in the Third Plan have not yet been started. These are also proposed to be taken up during the Fourth Plan period. The Engineering Research Institute is also proposed to be completed during the early part of the Fourth Plan. Additional achievement during the Fourth Plan period from schemes continuing from Third Plan is expected to be a gross potential of 15.58 lakh acres. The additional gross utilisation from these schemes is expected to be 15.67 lakh acres. The total spill over expenditure on all schemes including the two which have not yet been started is likely to be 45.9 crores. In addition, new schemes with outlay of 16.20 crores are proposed for inclusion in the Fourth Plan. Only one new major irrigation scheme is proposed for the Fourth Plan namely Potteru Irrigation Project. This is to utilise the tailwaters of Balimela Project and as such, it should really be included in continuing schemes.

4. The outlay, additional potential and additional utilisation of irrigation schemes during Fourth Plan will be as follows :

Continuing schemes	Outlay	Additional potential	Additional utilisations
	(Rs. in lakhs)	(000 acres)	(000 acres)
Hirakud Stage I	4,48.77	..	..
Delta	15,08.17	8,08.00	8,29.91
Salandi	3,89.32	3,20.00	3,23.00
Anandapur	11,48.81	2,24.30	2,24.30
Medium Irrigation Projects	8,57.40	2,05.87	1,89.72
Engineering Research Institute	2,39.89	..	..
New Schemes			
Potteru	4,00.00	..	..
Medium Irrigation Schemes	12,07.64	2,55.06	2,32.76
	62,00.00	18,13.23	17,99.69

5. The potential and utilisation of major and medium irrigation at the end of the Fourth Plan are thus expected to be of the order of 33 lakh acres and 31 lakh acres respectively.

(13) FLOOD CONTROL

The Orissa Flood Enquiry Committee appointed in 1960 have recommended a number of schemes to be taken up for flood control purposes. The recommendations are generally as follows :—

- (1) Flood protection embankments
- (2) Spurs and revetments.
- (3) Construction of flood escapes
- (4) Making cuts for quick discharge of flood water
- (5) Construction of flood control reservoirs

2. The anticipated expenditure under Flood Control Schemes during the Third Five-Year Plan period is expected to be Rs. 2·85 crores. A number of schemes will, however, spill over in the Fourth Plan period. The continuing schemes from Third Plan will require an outlay of Rs. 1·40 crores. The amount of Rs. 3·60 crores is proposed to be spent on new Flood Control Schemes based on the recommendations of the Orissa Flood Enquiry Committee. Thus the total outlay on flood control during the Fourth Plan period will amount to Rs. 5 crores.

(14) POWER

Since the beginning of the First Plan, Orissa has made a great progress in Power Generation. At the end of 1950, the installed capacity of power plants in the State was only 4·6 M. W. in public utility power stations and approximately 5 M. W. in Industry-owned power stations. By the end of the Second Plan, the installed capacity had increased to about 260 M. W. of which about 172 M. W. was in public utilities. Orissa's share in the country's installed capacity and generation rose from 0·27 per cent in 1950 to about 3·6 per cent in 1960-61. The generating capacity at the end of the Third Plan is likely to be 429·50 M. W. It will, however, rise to 914·50 by 1969-70, when all the projects now under construction will be complete in all respects. It has been estimated that this capacity will be adequate for Orissa's needs during the Fourth Plan period. Therefore, besides completing the projects already in hand, no additional generating capacity is proposed to be installed during the Fourth Plan period to meet

the State's power needs. The following table shows the installed capacity, capability, estimated peak load and firm capacity of the power schemes of Orissa at the beginning of the Third Plan and at the end of the Fourth Plan:—

	Beginning of Third Plan	At the end of Fourth Plan
(a) Installed capacity ..	MW 172·75	914·50
(b) Capability ..	MW 160·00	797·00
(c) Peak load ..	MW 132·00	703·00
(d) Firm capacity ..	MW 152·00	470·50

2. The outlay on the power schemes of Orissa during the Third Plan period is expected to be Rs. 55·45 crores. Out of this an amount of Rs. 37·44 crores is expected to be spent on schemes of generation and Rs. 17·28 crores on the schemes of transmission and distribution including Rural Electrification. On investigation of Power Projects, the expenditure is likely to be about Rs. 74 lakhs. The spill over expenditure in the Fourth Plan period on account of power schemes under execution is expected to be of the following order:—

	Outlay (Rs. in crores)
(a) Schemes of Generation—	
(i) Hirakud, Stage II ..	0·56
(ii) Balimela—	
(a) Dam ..	6·79
(b) Power ..	18·29
(iii) Talcher Thermal Station ..	2·79
(b) Schemes of Transmission—	
(iv) Transmission & Distribution ..	1·44
(v) Balimela Transmission ..	7·48
(vi) Talcher Transmission ..	1·33
Total ..	<hr/> 38·68 <hr/>

3. Two units of Talcher Thermal Station with a capacity of 125 M.W. will be commissioned within the Third Plan period. The remaining two units with a similar capacity are expected to go into operation during 1966-67. Of the six units of Balimela Project (each having a capacity of 60 M. W.) three are scheduled to be commissioned in 1968-69 and three in 1969-70.

4. As stated in the above para. with the completion of Balimela, Orissa will have adequate power for meeting industrial, agricultural, domestic and commercial loads during the Fourth Plan period. There will, however, be no surplus to meet the increasing demand from the beginning of the Fifth Plan period. Power projects take time to be constructed and commissioned. It is, therefore, proposed to undertake preliminary work during the fourth and fifth years of the Fourth Plan for expansion of Talcher Thermal Station and in respect of Indravati Hydro-electric Project. In addition, new transmission and distribution schemes costing Rs. 5.25 crores are to be taken up in the Fourth Plan period. Under Rural Electrification, it is proposed to provide an amount of Rs. 12 crores. With this provision, it is hoped that we will be able to electrify 1,500 villages during Fourth Plan period. At the end of the Second Plan, 176 small towns and villages had been electrified in Orissa. This figure is expected to go up to 576 by the end of the Third Plan period. The Fourth Plan target is to increase the numbers of electrified small towns and villages to 2,076. The total proposed outlay under 'Power' for the Fourth Plan period is Rs. 63.00 crores. The outlays are given in the following table :

	(Rs. in crores)
Spill over schemes	.. 38.68
New schemes—	
(1) Transmission and distribution	. 5.25
(2) Rural electrification	.. 12.00
(3) Advance action for expansion of Talcher Thermal Station.	2.50
(4) Advance action for construction of Indravati Hydro Electric Project.	2.00
(5) Investigation	.. 0.57
(6) Inventory for transmission and distribution schemes.	2.00
Total	.. 63.00

(15) INDUSTRIES AND MINERALS

In the task of bringing about a sustained growth of industries and spreading evenly the benefits of industrialisation in different regions, the part played by the State Government during the first and second plans was confined to creating necessary conditions for the large and medium industries to flourish without directly undertaking them. Similarly, in the field of village and small industries, the role of the State Government was mainly to help the small entrepreneurs in setting up industries, obtaining a regular supply of raw materials and marketing of finished goods. The only exception was the pilot projects of small-scale industries in the Second Plan. For these cases, the State Government participated in the share capital up to 90 per cent. The private entrepreneur was given the option to take over the unit in due course. At the time of the formulation of Third Plan it was decided that the policies followed in the first two plans should be continued with a greater emphasis. Subsequently, however, it was felt that the progress was very slow and it was necessary for the State to undertake directly the responsibility of industrialisation both in the field of large and medium scale and small-scale industries. In the first section of this memorandum we have already indicated the broad features of the strategy of industrial development in Orissa. The Industrial Development of the State is now being organised through a four-tiered programme, the industries being conveniently classified as follows :

- (a) Large-Scale Industries
- (b) Medium-Scale Industries
- (c) Small-Scale Industries
- (d) Village Industries.

By and large, the present approach to the method of Industrial development will be continued into the next Plan period.

Large-Scale Industries :

2. With the rapid development of the infrastructure of the State's economy, the stage is now set for establishment of major Industries. Apart from general improvement in the road links within the State, rail lines have been improved from operational point of view and two new lines (Sambalpur-Titlagarh and Kottavalasa-Baladilla) will be available by the Fourth Plan period. At least one Rail Link is expected to be forged between the Iron-ore ranges of Keonjhar-Bonai and Paradeep. This may be either from

Bansapani to Paradeep or Bimlagarh to Talcher and Cuttack to Paradeep. The Talcher Thermal Station and Balimela Hydel Project will produce big blocks of power. The Paradeep port will also catalyse the growth of new industries.

3. While industrial ventures will arise in public as well as private sectors, the basic industries will naturally remain with the public sector. By the end of the Third Plan the Industrial Development Corporation (I.D.C.) would have completed its Baragarh Cement Plant (1,200 tons/c'ay), a Rolling Mill, a Cable Plant, a Tile Unit, the Hirakud Workshop and the expansion of Kalinga Iron Works. In the Fourth Five-Year Plan, 18 Projects figure, out of which 8 will be mineral-based, 3 relate to cement, 5 will be engineering and two chemical and other industries. Considerable advance action has been taken in respect of some of the works, viz., Talcher Industrial Complex, Ferro Vanadium, Power Tiller, Ferro Chrome and Salt Project at Surla and Sumandi.

4. It has been mentioned that the rate of private sector growth is very low in Orissa. Special steps have, therefore, to be taken to attract private sector industries to this State. To encourage the growth of private industry through share participation, underwriting, etc., a provision of Rs. 10 crores has been included in the requirements of the Corporation. The overall requirement of funds will be of the order of Rs. 125 to 130 crores at present day price levels. Share capital of Rs. 51 crores is being provided in the Plan and the rest will be found by loans from financing institutions. Central Government will have to help in the raising of these loans. Why this approach is essential has been explained at some length in the opening sections of this memorandum. A list of projects presently envisaged may be seen in Section IX.

Medium-Scale Industries:

5. Every year, three Panchayat Samitis are selected as the most active and enthusiastic and the policy of the Government is to establish Medium-Scale Industries with an authorised capital of about Rs. 1 crore in each of these Samiti areas. In the current Plan, nine such units will be taken up and in the next Plan, fifteen more will be added. Fund will have to be found for completing fifteen of the Units (9 of Third Plan and 6 of Fourth Plan), rest of the nine will spill over in the Fifth Plan.

6. The initial allotment of funds is given in the form of share capital to I. D. C. for this purpose (included in the share of Rs. 51 crores mentioned under Large-Scale Industries). The I. D. C. is to get the Samiti area surveyed and establish the most suitable industry.

Small-Scale Industries :

7. The "Pilot Projects" experiment brought into existence a number of Small-Scale Industrial Units. The units continued to thrive under the protection afforded by Government. Instead of continuing to expand this scheme, a new orientation was given to the idea of Government sponsoring small industries through direct participation.

8. With the purpose of creating industrial nuclei in rural areas to afford greater and fuller employment opportunities there, a scheme of starting one industry in each Panchayat was sanctioned. 34 Panchayats are selected every year on the basis of their all-round performance and small industries are sanctioned as a reward. By 1965-66 there will be 200 such units. The industries are mainly raw materials based and many of them are agricultural processing units. At this level, co-operative form of organisation is preferred to the Joint Stock Company form. The share capital is contributed by individuals, Panchayats, Panchayat Samitis and State Government. For the present, Government is helping with establishment of Rural Industrial Estates where these industries can be housed; construction and management in the initial periods is done by the Orissa Small Industries Corporation; block capital is provided through the Orissa State Finance Corporation; working capital is found from the State Bank of India against a Government guarantee; as regards marketing, State Government Departments are the main customers and the State Purchase Organisation co-ordinates and ensures a good market wherever possible by ensuring purchase and price preferences in favour of these industries.

9. Apart from Prize Winning Panchayats, other enthusiastic Panchayats may also ask for such industries. But there the Governmental assistance will be somewhat restricted.

10. In the Fourth Plan period, 170 units in the Prize Winning Panchayats and 300 units in other Panchayats are expected to be undertaken. In addition, 200 rice mills are also to be set up in the Co-operative Sector. The general strategy for dispersal of industrial nuclei all over the State will be continued and a wider area covered. A diversification of the types of industries is inevitable. As the industrial units reach a stage of self-reliance, the Governmental assistance may have to progressively contract, leaving the unit in a healthy independent state with sufficient growth potential. Especially, the management by Orissa Small Industries Corporation has to be as far as possible restricted to the promotional and nascent stage of the development of each individual unit.

11. The Orissa Small Industries Corporation and the State Finance Corporation are proposed to be suitably strengthened. The former has to increase its share base from Rs. 10 lakhs to Rs. 50 lakhs in stages during the Fourth Plan period. The State Finance Corporation will be issuing debenture worth Rs. 100 lakhs during the same period of which the State Government would underwrite about Rs. 50 lakhs. The Orissa Small Industries Corporations expansion would mainly concentrate on the expansion of Project Engineering Services, Maintenance Engineering, Costing, Accounting and Management consultancy and training programmes, while continuing to supervise the administration of the units which are yet to reach maturity. The Orissa Small Industries Corporation will continue to distribute scarce raw materials to Small Scale Industries on the allocation of the Director of Industries.

12. Besides these Government sponsored units, private entrepreneurs are also expected to set up their own small industries, as ancillaries to the Major Industries being established in this State. Some of them may need assistance under State-Aid to Industries Act. A sum of Rs. 80 lakhs is provided for the purpose.

13. A provision of about Rs. 5.5 crores for small industries and Rs. 3.5 crores for Industrial Estates is at present contemplated for the programmes during the Fourth Plan.

Village Industries, Handlooms, etc.—(a) Handloom:

14. Out of a total of 112,000 weavers enumerated in the State about 50,000 are now members of Co-operative Societies. During the Third Plan period, consolidation of the present Co-operative Societies was given importance and new membership was given a lower priority. In the next Plan period, while further consolidating the existing societies by increasing the share holding of its members, 2,000 new members will be brought into the co-operative fold. The annual production in this sector will be of the order of 60 million yards.

15. The Export Wing added to the Apex Organisation will cover 6,000 weavers to produce Tie and Dye, Tassar Fabrics. A servicing cell will be in charge of giving instructions regarding Dyeing, Finishing, Weaving, etc. to the selected weavers. By the end of the Fourth Plan period, this wing may be producing goods worth Rs. 66 lakhs. For the purpose of expending the activities of this wing, the Apex Organisation will be given a loan of Rs. 5 lakhs during the next Plan period.

16. 800 Powerlooms have been taken up during the current Plan period. 900 more looms will be introduced during the next Plan period at a cost of Rs. 70 lakhs. They will produce 40 million yards per year, if worked for 3 shifts.

17. One Co-operative Spinning Mill of 25,000 spindles will be established by the end of this Plan. Two more will be needed during the Fourth Plan in order to meet the yarn requirements of the Handloom Weavers. Provisions, therefore, made for 50,000 spindles in the next Plan. Even when all the three mills are in operation, only 50 per cent of the demand will be covered.

18. Total production in the Handloom and Powerloom Sectors is estimated to be of a value of Rs. 10 crores per year.

19. Existing schemes will be continued into the next Plan.

(b) Sericulture:

20. For supplying disease-free layings to Tassar Rearing Co-operative Societies, three seed stations will be set up in the Fourth Plan period in addition to four during the current Plan. Schemes of assistance to the State Tassar Co-operative Apex Society and establishing Reeling and Spinning Centre for training the rearers in use of improved implements will also be continued. The provision for the Fourth Plan is Rs. 16.01 lakhs.

(c) Handicrafts:

21. The Fourth Plan envisages an expenditure of Rs. 15.87 lakhs on supervisory organisation and Rs. 18.48 lakhs on business investment. The production target is Rs. 47.70 lakhs including about Rs. 10 lakhs worth of filigree, jewelery, golden grass articles, etc. The employment potential is 2,630 persons and profit Rs. 9.47 lakhs.

(d) Khadi and Village Industries, Coir, etc.:

22. Among the more important schemes in this sector are coir (Rs. 3.05 lakhs), glassware (Rs. 1.80 lakhs) and Iron Foundry (Rs. 0.60 lakh). The supervisory organisation for the numerous industrial co-operatives will be adequately strengthened. The subsidy for the Khadi and Village Industries Board is to be increased to Rs. 2 lakhs a year during the next Plan period as against the present Rs. 1.5 lakhs per annum.

Mineral Development:

23. By the end of the Third Plan there will be 25 prospecting parties in the State. It is proposed to double this number during the Fourth Plan period with a view to prospect intensively the

areas where mineral occurrences have been noticed by the Geological Survey of India in course of their geological mapping operations. In areas where economic mineral deposits have been found, preparation of geological maps to a large scale will also have to be undertaken. The objectives of prospecting would be to comb the entire State for finding out reserves and grades of various minerals that have already been indicated as occurring by the Geological Survey of India and the Directorate of Mines. The field staff in the Directorate of Mines will, therefore, have to be considerably strengthened to undertake such detailed prospecting operations which would include geophysical prospecting, geochemical prospecting, added by drilling and laboratory studies. The laboratory facilities have, therefore, to be expanded, especially in the laboratory at Headquarters, which will undertake research activities.

24. During the Fourth Plan, strengthening of the field organisation for administration of major and minor minerals is proposed to be taken up to maximise the royalty and to effectively plug all leak holes.

25. Several important roads exist in the mining areas which have remained neglected for want of funds. This has resulted in the cost of ore going up. In order to make it available at competitive prices, immediate attention is necessary to improve all roads in the mining areas and connect as many of them with rail heads and industrial units as possible. Provision has been made for this purpose in the plan.

26. The State-owned Orissa Mining Corporation will need further share capital during the Plan period. Against their total requirement of Rs. 21 crores they would raise loan capital of Rs. 14 crores and share capital of Rs. 7 crores on the assumption that loan capital and share capital would be available in the ratio of 2:1 of the 7 crores to be subscribed by shares, Rs. 4.80 crores only will be needed during the Fourth Plan, the balance having been obtained during the Third Plan period. With the capital thus available, the Orissa Mining Corporation would undertake mining operations for supply of limestone to the 1,200 tons a day capacity of the Bargarh Cement Plant, Chromite to the 10,000 tons a year capacity of the Ferrochrome plant, iron-ore for the 1.5 lakh tons a year capacity of the Talcher Pig Iron Plant, iron-ore at Daitari for export through Paradeep and for the pelletisation plant and minerals to the other State-owned industrial units proposed to be set up during the Fourth Plan.

27. The total proposed outlay on mineral development is Rs. 8 crores against Rs. 5.72 crores in the Third Plan.

(16) ROADS

There is a provision of Rs. 20·64 crores for roads in the Third Plan including the Expressway Project. The target was to improve 844 miles of existing roads, to construct 137 miles of roads including conversion of 94 miles of Saline embankments into roads and to construct 97 new bridges. For the Expressway Project, the target was to construct 90 miles of roads from Daitary Mines to Paradeep Port. By the end of Third Plan period, it is expected that construction of 43 miles of new roads and 67 bridges and improvement of 771 miles of existing roads will be achieved. The Expressway is expected to be ready by the end of 1966-67.

2. The approach to road development in the Fourth Plan would be to provide the missing links, to strengthen the weak links and to improve the surface of State Highways and Major District Roads of economic importance, to provide communication to mining, industrial and agriculturally developed areas, ports, subdivisional and block headquarters and to connect some places of tourist interest.

3. With the above objective in view, it is proposed to take up construction of 40 miles of new roads and 66 bridges and improvement of 527 miles of existing roads. For proper planning, designing and study and assessment of works, it is necessary to strengthen the Designs and Research Section and to set up a Statistical Cell in the office of the Additional Chief Engineer, Planning and Designs. For staff, building, laboratory equipment and workshops, etc., an amount of Rs. 30 lakhs will be set apart.

4. To ensure quick and timely movement of fertilisers, seed, technical know-how and agricultural produce for marketing, it is proposed to upgrade to O. D. R. standard above 8,500 miles of rural road and to improve 4,000 miles of Panchayat Samiti roads and 8,000 miles of Panchayat roads which are at present in poor condition. For this purpose it is proposed to set apart Rs. 11·50 crores—Rs. 4·5 crores under P. W. D. and Rs. 7 crores under the R. E. O.

5. To improve the municipal roads which are at present in disrepair due to inadequacy of funds, an amount of Rs. 0·45 crores is proposed to be spent.

6. To counter the effects of ever-increasing labour rates and to encourage the local enterprises specially in bridge construction and to execute the work at a quicker pace, it is proposed to have some road, building and bridge making machinery like dozers, R. C. C. pile drivers, cranes, collapsible scaffolding, etc. This project is being included in the Industries Programme.

7. To achieve the above objective, an outlay of Rs. 25 crores is required :

	(Rs. in crores)
Spill over from Third Five-Year Plan including the Expressway.	.. 7.65
Conversion of 144 miles of saline embankment to roads.	.. 1.10
Improvement of rural roads (Rs. 4.5 crores under P.W.D. and Rs. 7 crores under the R. E. O.).	.. 11.50
Improvement of Municipal roads.	.. 0.45
Construction and improvement of P. W. D. roads.	.. 4.00
Research and Designs Organisation.	.. 0.30
Total	.. <u>25.00</u>

(17) STATE TRANSPORT

With the development of roads in the State, it will be necessary to provide an efficient and economical Road Transport Service for the movement of people. The Road Transport Service has to be co-ordinated with the Road Development programme. With a view to provide an efficient and economic service in the interest of the public, the State has taken upon itself the responsibility of running such a service for the last few years covering about 12,000 kilometres of route. There was no provision in the Third Plan of the State to finance this service as a result of which it has become difficult to realise the above objective. The State Transport Service finds it difficult to run efficiently with its own resources. It does not have resources to increase the number of buses on routes commensurate with the increase in passenger traffic and is not able to extend its operations over new routes and areas.

2. For a fully co-ordinated, efficient and economic Road Transport Service, the following measures are necessary in the Fourth Plan : —

- (a) Intensification of service on routes where passenger traffic has increased or will increase in the Fourth Plan.
- (b) An efficient maintenance service
- (c) Extension of service to new routes.

3. With the above objective in view, it is proposed to intensify service on 2,500 kilometres of routes for which 180 buses will be required. The outlay involved will be Rs. 140 lakhs. This measure will be implemented according to a phased programme, priority being given to routes where passenger traffic has already increased. Intensification in other routes will be taken up as and when there is need which will arise out of the agricultural and industrial development that will take place in the Fourth Plan and the trade and commerce that would follow in its trade.

4. The existing facilities for maintenance are inadequate and it has not always been possible to maintain the buses in good condition. It is, therefore, proposed to equip and strengthen the Central Workshop at an outlay of Rs. 16 lakhs. This workshop will undertake major works like reconditioning of engines and body building. To provide for other major repairs, it is necessary to set up five Zonal Workshops at a cost of Rs. 22.50 lakhs. At the base stations it will be necessary to set up small maintenance sheds for daily maintenance and periodical servicing. The work which can not be tackled in these stations will go to the Zonal Workshops. It is proposed to set up 27 maintenance sheds at a cost of Rs. 1 lakh each. To arrange the spare parts in advance and to ensure a co-ordinate supply, it is proposed to set up a Central Store. To attend promptly to break-downs on the roads, it is proposed to have five vans properly equipped and staffed.

5. For the convenience of the travelling public it is proposed to construct bus stations with waiting rooms for passengers and other amenities. There would be 40 bus stations at an average cost of Rs. 50,000 each.

6. To meet the requirements partially of office buildings and staff quarters, an amount of Rs. 46.50 lakhs will be set apart.

7. With the consolidation and intensification of the existing routes it is proposed to take up some new routes where there is need and public demand. As consolidation and intensification will receive priority, the programme of adding to the State Transport routes will be restricted to 1,500 kilometres during the Fourth Plan.

8. Thus the total requirement would come to Rs. 300 lakhs as under:—

(a) Intensification of services	..	Rs. 140 lakhs
(b) Workshops, Bus Stations and amenities for passengers and staff.		Rs. 130 lakhs
(c) Extension programme	..	Rs. 30 lakhs
		<hr/>
Total	..	Rs. 300 lakhs
		<hr/>

(18) ORE TRANSPORT

During the Third Five-Year Plan, a provision of Rs. 2.45 crores was made for acquiring a fleet of vehicles for transporting 2 million tons of iron-ore annually from Daitari to Paradeep and other connected facilities such as workshop, maintenance, etc. As a result of the latest assessment of the implementation of the Third Five-Year Plan schemes, it has been found that the total expenditure which would be incurred on the scheme by the end of the Third Five-Year Plan would be Rs. 1.42 crores. This short-fall in achieving the target set for this scheme, has been mainly due to the delay in taking decision regarding the type of vehicle with which the fleet will have to be built up. No final decision in the matter has yet been arrived at, although tentatively the Government of India have advised that we may import Ashok Leyland tractor-trailors. Negotiations in the matter with the Government of India are going on. Altogether 115 vehicles have to be acquired for transporting 2 million tons. The total cost of the scheme during the Fourth Plan period would be about Rs. 2 crores as explained below.

2. During the Third Five-Year Plan period it is expected that with the total amount of Rs. 1.42 crores spent, about 50 vehicles and ancillary facilities such as workshop, construction of staff quarters, etc. would be done. The remaining 65 vehicles out of the total number of 115 vehicles required for two million tons of traffic, would have to be acquired in the Fourth Plan period for which approximately Rs. 1.50 crores would be required. The remaining Rs. 50 lakhs would be utilised for creation of other necessary facilities for running of the fleet as well as such replacement of fleet, as may be necessary towards the end of Fourth Plan period as it is proposed to be intensively utilised from the very beginning necessitating thereby replacing a portion of it within the period of five years.

3. It may, however, be stated that if it becomes necessary to expand the fleet for dealing with traffic above two million tons, funds required therefor will either be found from the earnings of the scheme or from market borrowings or by augmenting the provision of Rs. 2 crores now being made for the Fourth Plan period.

(19) TOURISM

Orissa with its great archaeological remains, cultural background, vast coastline and numerous estuaries and dense forests, etc., has a large scope for development of tourism. Most of the potential has not yet been adequately tapped. It is proposed to undertake a large programme under Tourism during the Fourth Five-Year Plan. The outlay being proposed under this head is Rs. 1 crore. Some of the important schemes being included under this programme are as follows :—

- (1) Building and Hotel Projects
- (2) Transport
- (3) Recreation facilities
- (4) Publicity of Tourism
- (5) Staff for management of Tourist Scheme
- (6) Entertainment for Tourist
- (7) Improvement of places of Tourist Interest.

(20) GENERAL EDUCATION

Although during the Second and Third Plan periods, considerable progress was made at different levels of education in Orissa, a much faster expansion is needed to reach the levels obtaining in other States. The Fourth Plan proposals have been formulated to achieve practicable targets at an accelerated pace, keeping in mind the need for improvements in the quality of instruction. Further, the educational development in the State has been uneven. In some of the districts inhabited largely by backward classes, the expansion has been exceedingly meagre. In the Fourth Plan proposals, we have incorporated the special efforts to be made for raising educational facilities in the backward areas and for spreading education among the weaker sections rapidly.

2. Of particular concern in the State is the low level of education among girls and women. It is, therefore, proposed to provide relatively greater facilities and special encouragement to the girls and women to come to educational institutions.

3. The need to link education with economic development has been kept in view and maximum feasible expansion is proposed to be made in Science subjects.

4. The approach to the General Education Plan, therefore, is to lay stress on quality of training, weaker sections, science subjects and girls education.

5. The total outlay of the Fourth Plan proposals is estimated to be Rs. 31 crores. The break-up of this amount is given below. This may be compared with the anticipated plan outlay of Rs. 15 crores during the Third Plan period:—

	Rs. in lakhs
(1) Elementary Education ..	1545·13
(2) Secondary Education ..	959·09
(3) University Education ..	422·41
(4) Other Education Schemes ..	223·37
	<hr/>
Total ..	3150·00
	<hr/>
Deduct expected to be obtained from the University Grants Commission.	(—)50·00
	<hr/>
Total ..	3100·00
	<hr/>

ELEMENTARY EDUCATION—

(a) Primary Education:

6. The target at the end of the Third Five-Year Plan was to enrol 82 per cent of the children in the age-group of 6—11 in the Primary Schools. On account of the girls not coming to the schools in adequate numbers and curtailment of teachers on account of emergency, the target would not be realised. It is estimated that at the end of the Third Plan period, 75 per cent of the children in the age-group will be in the schools. The target set out for the Fourth Plan is to raise the enrolment to 90 per cent. For this purpose, it will be necessary to have 17,300 more teachers and to open about 2,000 more schools in areas which are not now served by adequate facilities.

7. The main problem is to attract girls to Primary Schools and for this purpose a number of special schemes are proposed to be included in the Fourth Plan, some of which are adequate number

of staff quarters for women teachers, condensed courses for adult women, attendance scholarships and appointment of School Mothers.

8. For improvement in the quality of teaching staff, provision is being made to provide facilities for training in the evenings so that Under-matric Primary teachers may appear privately at the High School Certificate Examination to improve their qualification. Many of the Primary Schools do not have proper school rooms, furniture or equipment. Schemes have been included for their improvement. It has been considered desirable to impart a technical bias among children from the primary stage. For this purpose, workshops with toy machinery are proposed to be provided in a number of Primary Schools. Improvement of education also needs adequate and efficient instruction and supervision. Provision has, therefore, been made for strengthening the inspecting staff.

(b) Middle School Education:

9. Middle School Education forms a part of the Elementary Education. Middle Schools are largely started by private initiative and run with grant-in-aid received from Government. It was contemplated to have 500 Middle Schools during the Third-Plan period. But, on account of public enthusiasm and the expansion of primary education during the Second Plan period, it is now expected that 1,500 more Middle Schools would have been established during the Third Plan period in place of 500 originally contemplated. The expansion has, however, taken place largely in the advanced districts and private initiative is not forthcoming in the backward districts of the State.

10. The Fourth Plan aims at establishing 2,000 more Middle English Schools in the different parts of the State with a weightage for the backward areas and for girls.

11. It is estimated now that at the end of the Third Plan 20·7 per cent of the children of the age-group of 11—14 will be attending schools. The target set out for the Fourth Plan is to enrol 37 per cent of the children in this age-group. It will be possible to realise those objectives in view of the expansion of the primary education reached so far. The Plan makes provision by way of scholarships, maintenance stipends, attendance scholarships, provision of hostels, etc., to encourage students from the primary schools to join Middle Schools in larger numbers.

12. It is also proposed to take steps to improve school buildings, provide equipment and libraries, workshops for imparting technical bias in the Middle Schools and teachers with adequate qualifications.

High School Education :

13. It was originally estimated that during the Third Plan 120 new High Schools would be established. But on account of public enthusiasm and initiative, as many as 400 new High Schools could have come into existence by the end of the Third Five-Year Plan. It is estimated that by the end of the Third Plan 10·8 per cent of the boys and girls of the age-group 14—17 would be attending High School classes. On the basis of the achievement and expansion of middle school education, it is considered practicable to enrol 22 per cent of the boys and girls in this age-group by the end of the Fourth Plan period. To realise this objective, it would be necessary to have 1,000 more High Schools and increase the intake capacity in an equal number of schools.

14. As in the elementary stage of education, it is necessary at this stage to provide special facilities and encouragements for girls to come to the High Schools. Accordingly, the Plan seeks to provide subsidised transport facilities in urban areas, provision of sanitary arrangements in the schools, construction of hostels for girls and special allowance for women teachers to serve in schools in rural areas. The scheme includes, further, reorganisation of condensed courses to enable adult women to appear at the High School Certificate Examination.

15. It is felt that during past decade or so the secondary education has suffered badly in quality. The Plan seeks to include necessary programmes for bringing about qualitative improvement. It is proposed to expand science education by providing equipment and laboratories and to improve library facilities which are now exceedingly meagre. Many of the High Schools do not possess minimum buildings. The deficiencies have to be rectified. Quarters are to be provided for teachers and particularly in rural areas and hostels have also to be constructed.

16. The High School Programme in the Fourth Plan has thus been prepared to achieve accelerated expansion and qualitative improvement and to provide adequate facilities and encouragement to attract girls in larger numbers.

TRAINING PROGRAMME

(a) Elementary Training Schools:

17. Among the primary teachers, a considerable proportion is untrained. It is necessary to clear the backlog of these untrained staff in the schools. Some of these teachers are sent to Elementary Training Schools for the requisite training. But in general, it has now been accepted as a policy to get them trained in one year condensed course. Accordingly, the number of condensed

course centres has to be increased in the Fourth Plan period. By the end of the Third Plan, there will be about 49,000 teachers in primary schools. Of these, 4 per cent is expected to retire every year. Besides, 17,300 teachers are required to be appointed during the Fourth Plan period. There are at present 80 Elementary Training Schools in the State. It is not considered necessary to increase the number of Elementary Training Schools. The intake capacity in these existing schools is however to be increased. As a part of advance action in the last year of the Third Plan period, provision has been made to increase 1,000 seats in the existing Elementary Training Schools. During the Fourth Plan period it will not be necessary to have any quantitative expansion, but attention will have to be given to improve the quality of these schools.

(b) Secondary Training Schools (C.T.Schools) :

18. The position with regard to trained teachers among matriculates is more unsatisfactory than in the case of primary teachers. There is now provision for 450 students only every year in the existing C. T. Schools. In the last year of the Third Plan, it is proposed to increase the intake capacity by 200 more under advance action. During the Fourth Plan period, it is proposed to start 10 more C. T. Schools and increase the intake capacity of the existing E. T. Schools, so that at the end of the Fourth Plan period the total intake capacity in the C. T. Schools will be of the order of 2,000. It is also contemplated in the plan that along with this increase in the intake capacity there should be brought about qualitative improvement in the training schools.

(c) Training Colleges :

19. In the existing 3 training colleges in the State, the intake capacity is 360. Under advance action in the last year of the Third Plan, the intake capacity in these three colleges will be increased by 160. It is proposed that during the Fourth Plan period one more training college will have to be started with an intake capacity of 200, so that at the end of the Fourth Plan period the total intake capacity will increase to 720.

University Education :

20. Orissa unfortunately occupies the lowest position in University Education among the States in India. Rapid advance in university education is necessary not merely to provide personnel in the various fields and activities, but also to provide adequate teaching staff in the secondary schools. To the 29 colleges for general education existing at the end of the Second Plan period, it was contemplated to add 12 during the Third Plan. In fact,

by now 15 more colleges have been established during the last four years. In addition, some more private colleges have come into existence at different places. Many of these new colleges are ill-equipped and ill-staffed. They have hardly any buildings and equipment. If collegiate education expands in this manner, the entire edifice of education from the point of view of quality will undergo a serious deterioration. The Fourth Plan does not contemplate opening of any new college (except women's colleges) for general education. Instead, it is proposed to consolidate the existing colleges by improving their building, equipment, hostels, laboratories and libraries. It would be desirable to make optimum utilisation of efficient teaching staff and resist emergence of inefficient colleges here and there. The Fourth Plan, therefore, seeks to provide qualitative consolidation of the existing colleges.

21. The purpose of consolidation of the existing colleges will include the starting of Honours Classes in Science in a number of colleges and improvement of Post-Graduate studies. Scholarships and stipends of various categories initiated during the Second and Third Plan periods will be increased, so that no student capable of pursuing higher education is debarred from doing so on account of financial difficulties.

22. The Plan includes increase in the grant to the Utkal University to maintain and improve Post-Graduate classes and to start Post-Graduate courses and research facilities in various subjects in which such facilities do not at present exist.

23. In addition to the schemes outlined above, due attention is proposed to be paid to programmes of Social and Physical Education and National Cadet Corps.

(21) TECHNICAL EDUCATION AND CRAFTSMAN TRAINING

Graduate Engineers :

Orissa's requirement of Graduate Engineers, based on the all-India estimate of 75,000 for the Fourth Plan and including the back-log from the Third Plan, would be about 3,150. The anticipated output from the existing two Engineering Colleges and from outside institutions is 1,650. For the remaining 1,500, it is proposed to increase the admission in both the colleges from 250 to 400 in the beginning of the Fourth Plan and in the third-year of the Plan establish a new college with an initial admission of 250. It is proposed to introduce Post-Graduate classes in the existing two colleges.

Diploma holders :

2. The Fourth Plan requirement including a back-log of 600 is estimated at 6,600. The anticipated output is 3,900. It is, therefore, proposed to complete the expansion of the existing Engineering Schools which has already been taken in hand and to put up 3 more Engineering Schools and one Polytechnic for women. The total expenditure proposed is rupees 1,00 lakhs.

3. It is proposed to establish a Foreman's Training Centre with the assistance of the West German Government at Rourkela to train Technical Teachers and to produce Foreman type of persons to meet the acute shortage of this class of Technical and Production Personnel in the country.

Technical Schools :

4. It is proposed to establish 20 Technical Schools of a new type where emphasis will be on giving the boys training in Technology and Science along with a good general education up to the Second School standard, so that the boys when they pass out can either take to a trade or go in for higher technical education.

Loan Stipend :

5. The scheme of the State Government to give loans to deserving and meritorious students for higher studies in engineering, science and technology which has worked successfully for the last some years, will be continued on a larger scale to meet the growing demand for trained man.

Board of Scientific & Industrial Research :

6. For encouraging teachers in technical institutions and scientists to take to research it is proposed to give a grant of Rs. 10.00 lakhs to the Board of Scientific and Industrial Research, Orissa. An outlay of Rs. 6.2 crores is being proposed for the above technical education schemes in the Fourth Plan.

Craftsman training :

7. The Labour Ministry has allotted 4,200 new seats to Orissa during the Fourth Plan period. 2,500 seats will be filled up by expanding the existing nine Industrial Training Institutions. For the remaining 1,700 seats it is proposed to establish seven new institutions so as to have at least one Industrial Training Institute in every district. The total outlay required for this programme has been estimated at Rs. 7 crores.

According to the current pattern only the State's share which is 40 per cent is included in the State Plan. Hence an outlay of Rs. 2.8 crores is being proposed for Craftsman Training Scheme.

(22) CULTURAL PROGRAMMES

Implementation of Cultural Programmes in Orissa has been entrusted to a separate Department of Cultural Affairs.

The department deals mainly with the following subjects:—

Group A—(1) Museum

(2) Archives

(3) Archaeology

Group B—Dance, Drama, Music,
Art and Literature.

Group C—Sports activities

2. The State museum at Bhubaneswar will be completed in all respects by the end of the Fourth Plan. This museum was started only towards the end of the Second Plan period. The regional museums at Baripada, Khiching and Belkhandi will be augmented by two more regional museums where in addition to the archaeological specimens, regional characteristics will be emphasised.

3. In the field of archives, attempt has been made to take over more and more of the documents in the custody of the District Office, Board Office and others with a view to centralising the records in the State Capital under the scheme of archives. Techniques for preservation which have been initiated will be augmented and expanded.

4. In the field of archaeology, the excavation work, intensification of numismatic research and editing of inscriptions will be highlighted during the Fourth Plan. Mahanadi River Valley, Tel River Valley and Banshadhara River Valley will be taken up for survey and specific excavation work during this period, since in respect of these areas no work has been done whatsoever.

5. In respect of music, dance, drama, art and literature the activities of the three academies will be further intensified. Additional funds will be given to them and grants-in-aid to private institutions which are increasing in number and which are expected to further increase in the Fourth Plan will be given in an increasing manner. A State Theatre will be started and the Sangeet Mahavidyalaya started during 1964-65 will be expanded. Instructions will

be given on Orissi, Karnatic and Hindustani styles of music. Editing of M. I. L., i. e., Oriya, bringing out further volumes of Encyclopadia of Orissa, completion of the edition of Sarala Mahabharat, bringing out Delux Edition of Upendra Bhanj's literary work will be completed and further work on similar lines undertaken. Orissi dance troupes on State level are proposed to be brought up to a standard for international exhibition so that the teams can be sent out with a view to earning hard currency for the country. The work relating to revision of gazetteers is expected to be completed by the middle of the Fourth Plan.

6. In the field of sports, encouragement for building State level stadia, district level stadia and play grounds and village level play grounds have been contemplated. A minimum of equipment for improving the general physique of the population will be given to the local bodies which will be entrusted with the maintenance of the stadia. Grants-in-aid will be given for the purpose. Specialised coaching in foot-ball, volley-ball, cricket, etc., will be intensified. Action on this programme has already been initiated in the Third Plan. Action has also been taken to expand the activities of the Mountaineering Institute which has already been started. Regatta clubs, Yacht Clubs, Gymnasia, etc., will be further multiplied with the intention of building a healthier and stronger community who will go towards building up the statute of the nation.

7. The total outlay being proposed in the State Plan for Cultural Programmes including Sports and Games is Rs. 2 crores. Of this amount Rs. 1.25 crores are for Groups A and B and Rs.0.75 crores for Group C. This is on the assumption that the present pattern of assistance will continue in the Fourth Plan period. A number of schemes notably Sports, etc., are at present centrally sponsored schemes and only the State's share finds place in the State Plan. It is desirable that the same system should continue.

(23) HEALTH

Public health conditions in Orissa are poor. Death rate during the period 1941—50 was estimated at 33.3 which was over 16 per cent higher than the all-India death rate of 28.5. This declined to 30 in 1951—56, a fall of 9.9 per cent from 1941—50 rate whereas during the same period the all-India rate declined by 12.3 per cent. Orissa has the highest recorded death rate from the major diseases. The *per capita* expenditure on health services in the State was Rs.0.62 in the First Plan. It was raised to Rs.1.50 by the end of Second Plan, while the all-India *per capita* rate during the Second Plan was about Rs.7. The *per capita* expenditure by the end of Third Plan will be about Rs.3.80.

2. During the First Five-Year Plan an amount of Rs. 63·80 lakhs was spent on Plan Schemes under Health. During the Second Plan the expenditure amounted to Rs.275·67 lakhs. The anticipated outlay on Health during the Third Plan is of the order of Rs. 1,126 lakhs. In the Third Plan, emphasis has been laid on—

- (i) eradication of some of the communicable diseases, viz , malaria and small-pox ;
- (ii) provision of integrated Health Services to the community by way of establishment of Primary Health Centres and Family Planning Centres ;
- (iii) augmentation of Education and Training Programmes.

3. The Health Programme for the Fourth Plan period has been conceived within the framework of long-term targets suggested by the Health Survey and Planning Committee. It is proposed to provide for an outlay of Rs. 2,000 lakhs. Special stress is being laid on enlarging—education and training facilities for medical and para-medical personnel, providing integrated services to the community through the expansion of the Primary Health Centres and Family Planning Programme, Eradication of Malaria and Control of T. B. and Leprosy and improvement and expansion of institutional curative facilities (both general and specialist services) besides re organisation of the administrative machinery by integration of Medical and Public Health Services.

4. The distribution of the proposed outlays on major components of the Medical and Public Health Programmes during the Fourth Plan are shown in the following table:—

<i>Programmes</i>	<i>Fourth Plan Outlay</i> Rs. in lakhs
1. Medical Care ..	781·08
2. Public Health Services ..	50·85
3. Control of diseases ..	575·08
4. Education and training ..	491·62
5. Family Welfare Programme ..	94·74
6. Indigenous system of medicine ..	32·23
7. Drugs control ..	1·46
8. Administration ..	32·94
Total ..	2,000·00

5. The total outlay during the Fourth Plan will be nearly 40 per cent more than the total expenditure during the first 3 Plans. The programmes envisage considerable increase in expenditure on Medical Care, Education and Training, Control of Diseases and Family Planning Programme.

Medical Care :

6. The programme includes—

- (i) increasing the bed strength from one bed for 3,000 population by the end of the Third Plan to one bed for 2,090 population by the end of the Fourth Plan;
- (ii) providing specialist service units in medicine, surgery, gynaecology, obstetrics and ophthalmology in 10 district headquarters hospitals; and
- (iii) Primary Health Centres—By the end of the Third Plan 248 blocks will be provided with Primary Health Centres. The remaining 65 blocks will be provided with Primary Health Centres in the first year of the Fourth Plan. Construction of building of 131 Primary Health Centres will be completed by the end of the Third Plan and 182 Centres will be taken up during the Fourth Plan. A provision of Rs. 253·28 lakhs has been suggested under the Primary Health Centre Programme. Besides, it is proposed to take over the Mental Hospital from the Indian Red Cross Society and develop it to a full-fledged society with 100 beds at a cost of Rs. 54·60 lakhs.

Public Health Service :

7. This programme includes expansion of the Health Education Bureau, provincial laboratory and the regional laboratories, introduction of mass immunisation programme on pilot basis in 32 blocks covered under Expanded Nutrition Programme and reorganisation of the School Health Programme at a cost of Rs. 48·95 lakhs.

Control of communicable diseases:

8. Under National Malaria Eradication Programme, 15 units have been set up now. By the end of the Third Plan 5·65 units are likely to be under surveillance and the remaining units will be under spraying-*cum*-surveillance. The programme will, therefore, be continued in the Fourth Plan and it is expected that all the units will enter into maintenance phase by the end of the Fourth Plan.

An outlay of Rs. 304.64 lakhs has been proposed under this programme. The existing 5 Filaria Controlling Units are proposed to be continued and 20 more units will be set up in the urban areas during the Fourth Plan for which a provision of Rs. 45.44 lakhs has been made. Besides continuance of the existing 5 Leprosy Control Units, it is proposed to convert 15 subsidiary centres into control units. 22 S. E. T. Centres are expected to be established by the end of the Third Plan. It is proposed to establish 80 more such units during the Fourth Plan. District T. B. Control Centres will have been set up in 5 districts by the end of the Third Plan. The remaining 8 districts will be covered under the Fourth Plan. Besides, it is proposed to set up two more T. B. Hospitals and increase the bed strength of the T. B. Hospitals and increase the bed strength of the T. B. Hospital at Chandpur so as to provide 470 additional beds during the Fourth Plan.

Education and Training :

9. The main bottleneck in the implementation of the various Health Programme is the inadequacy of the medical personnel, particularly doctors. It is expected that by the end of the Third Plan there will be 1,950 doctors in the State as against the requirement of 5,700 doctors at the rate of one for every 3,500 population. To meet the requirement the admission capacity in the three medical colleges has been raised to 500. It is, however, proposed to restrict the admission to 150 in each of the colleges to keep up to the standards laid down by the Indian Medical Council. This will mean 450 admissions per year. During the Fourth Plan it is proposed to establish a Regional Medical College at Rourkela with a capacity of 50 annual admissions. It is also proposed to raise admission capacity in post-graduate courses in S. C. B. Medical College and open post-graduate classes in Anatomy, Physiology, Pharmacology and Ophthalmology in Burla Medical College. Provision has also been made for increasing the admission in the various para-medical training courses like nurses, Auxiliary Nurse Midwives, Auxiliary Health Workers, Pharmacists besides Laboratory Assistants, Radiographers and sanitary Inspectors. A total outlay of Rs. 366.64 lakhs has been provided under this programme.

Family Planning Programme :

10. The Family Planning Programme of the State has been re-organised. Rural Family Planning organisations will have been set up in 176 blocks by the end of the Third Plan. The remaining 137 blocks will be brought under the programme during the Fourth Plan. The existing 13 District Family Planning Bureaus will be

continued. Sterilisation units have been set up in each district headquarters hospital and Capital Hospital. It is proposed to set up sterilisation units in 38 subdivisional hospitals and 248 Primary Health Centres by the end of the Third Plan. The remaining subdivisional hospitals and Primary Health Centres will be covered during the Fourth Plan. Orientation Training Camps are being organised to train the V. L. Ws. Mahila Samiti members, School Teachers, Panchayat Workers, etc. By the end of the Fourth Plan 500 medical personnel will have been trained besides 1.25 lakh non-officials. A provision of Rs. 666.88 lakhs has been suggested for the Family Planning Programme of the State in the Central Sector during the Fourth Plan. It is proposed to rely mainly upon sterilisation. The target for the Fourth Plan period is to achieve an annual sterilisation rate of 6 per thousand population.

11. During the Fourth Plan it is proposed to strengthen the durgs control organisation, establish 40 Ayurvedic dispensaries and one Ayurvedic Hospital. Under administration it is proposed to integrate both Medical and Public Health personnel into one unified cadre and set up Planning and Evaluation cells both at the Government and Directorate level.

(24) HOUSING URBAN AND RURAL PLANNING AND CAPITAL CONSTRUCTION

The revised Third Plan outlay on housing is Rs. 1.55 crores. This is proposed to be raised to Rs. 10 crores in the Fourth Plan. The distribution of the outlays under different programmes is broadly as follows:—

	(Rs. in crores)
(i) Subsidised Industrial Housing Scheme..	4.30
(ii) Low Income-group Housing Scheme ..	1.00
(iii) Village Housing Project Scheme ..	4.00
(iv) Slum Clearance ..	0.25
(v) Town Planning ..	0.25

Subsidised Industrial Housing Scheme :

2. By the end of the Third Plan about 1,400 tenements will have been constructed as against the target of 1,665. The short fall is on account of shortage of trained technical staff, difficulty in

obtaining building materials and non-availability of people's contribution. During the Fourth Plan, it is proposed to set up certain block factories under Panchayat Industries Scheme. In addition, certain bigger centralised industries will also be located in public sector. It is proposed to construct about 8,600 tenements for industrial workers for these industries at a cost of Rs. 4.30 crores.

Low Income-Group Housing Scheme :

3. Under this scheme loan is sanctioned to persons who do not own any house and whose annual income does not exceed Rs. 6,000 for construction of residential houses. It is also proposed to take up construction of houses by Government for sale on hire purchase basis to eligible persons who will provide 20 per cent of the cost from their own resources, the rest being loan limited to Rs. 10,000. During the Fourth Plan it is proposed to sanction loan for construction of about 1,000 residential houses in the State under the Scheme for which an outlay of Rs. 1 crore has been provided.

Village Housing Project Scheme :

4. By the end of the Third Plan about 3,500 village houses will have been constructed or remodelled. About 84 per cent of the rural houses are thatched ones and are vulnerable to frequent fire accidents. It is, therefore, proposed to provide tile roofs to about one lakh houses in the Fourth Plan which will cost about Rs. 8 crores out of which Government will provide loan to the extent of Rs. 4 crores and the balance of Rs. 4 crores will be provided by the loanees. The target is related to the capacity of tile factories which have been set up under the Panchayat Industries Scheme.

Slum Clearance :

5. Slum clearance programme has been undertaken in a number of small towns and cities. It is proposed to take up about 40 towns in the Fourth Plan at a cost of Rs. 45 lakhs and initiate legislation for acquisition of slum bustees for improvement,

Town Planning :

6. The Third Plan outlay under Town Planning is Rs. 4.38 lakhs and the programme has been taken up in 24 towns.

During the Fourth Plan it is proposed to take up the remaining 64 towns for which an outlay of Rs. 25 lakhs has been provided.

Land Acquisition and Development :

7. Increasing land prices in the urban areas constitute one of the bottlenecks in the implementation of the Housing programme. In the Third Plan provision has been made for acquisition and development of land round about the growing towns and cities. The scheme was financed fully by the Central Government till 1961-62 and, thereafter it is financed out of the loan available from the Life Insurance Corporation. The Cuttack Improvement Trust is financed under this programme. During the Fourth-Plan, acquisition and land development at Cuttack, Puri and Rourkela is proposed to be taken up more extensively. It is, therefore, necessary to provide adequate funds for bulk acquisition and development of land in these towns for which necessary loan assistance should be made by the Life Insurance Corporation.

Rental Housing Scheme :

8. The loan obtained from the Life Insurance Corporation under the Rental Housing Scheme is being utilised to set up rental houses for the low and middle income groups. Some portion of this loan is being utilised for construction of quarters for these classes of people under the Capital Construction Projects. But this amount is not adequate. During the Third-Plan it is expected that about Rs. 350 lakhs will be available by way of loan from the Life Insurance Corporation. It is, therefore, necessary that during the Fourth-Plan the loan assistance by the Life Insurance Corporation should at least be doubled to meet the increasing requirements for providing quarters for these income groups.

9. In the memorandum for the Fourth-Plan considered by the National Development Council an outlay of Rs. 80 crores has been provided for office and residential accommodation of the Ministry of Works and Housing. No corresponding provision appears to have been made in the State Sector for office and residential accommodation. In the Fourth Plan it is estimated that the minimum requirements for office and residential accommodation in the State Capital will be Rs. 7.50 crores. Since it is not possible to meet this requirement from the normal State resources and since the loan assistance from the L. I. C. is rather limited it will be necessary that Government of India should make substantial provision in the State Sector on this

account. The break-up of Rs. 750 lakhs for the Capital during the Fourth Plan will be as follows:—

	Rupees in lakhs
(a) Residential buildings ..	260·00
(b) Central Sewerage and Water Supply ..	220·00
(c) Land Acquisition ..	40·00
(d) Non-residential buildings ..	100·00
(e) Amenities including medical facility ..	130·00
	—————
Total ..	750·00
	—————

(25) WELFARE OF BACKWARD CLASSES

Orissa has an area of 60,135 sq. miles, one-third of which has been declared as scheduled area. The State has the highest percentage of tribal population among the Indian States next only to Nagaland. The tribal population forms 14·15 per cent of the total tribal population in the entire country. The percentage of scheduled tribes population is 24·07 per cent and of the scheduled castes population 15·74 per cent of the total population of the State. As many as 62 tribes of different economic gradation constitute the scheduled tribe population among whom more than 2½ lakhs like Dongaria Konds, Kotia Konds, Lanjia Sauras, Hill Juangs, Pardi Bhuyans and others are still in primitive stage leading to sub-human existence and depending mostly on fruits and roots. Most of the scheduled caste and scheduled tribe population are still landless and get casual employment as agricultural labours.

2. Developments in recent years have made considerable impact on the life and psychology of the Scheduled Tribes. Heavy industries and multi-purpose projects such as Rourkela Steel Plant, Hirakud Dam, Sunabeda Aero-Engine Factory, Balimela Dam and Tikerpara Dam located in tribal areas have seriously disturbed and displaced the tribal life and economy. The resettlement of the refugees in the Dandakaranya has also added

to this. The programme of welfare of Backward Classes has, therefore, to be viewed from this perspective and oriented to suit the requirement of a growing agro-industrial economy. A number of small and medium units of agricultural processing industries are, therefore, to be located to help the tribal people to get full benefit of the minor and major forest produce available within their easy reach. To protect them from exploitation by the unscrupulous traders and middle men, purchase and sale centres and consumer stores on co-operative basis are being set up. A large number of forest marketing and labour contract co-operative societies are being organised.

3. During the Fourth Plan special emphasis has been laid on economic development and educational programmes for Scheduled Tribes, Scheduled Castes and denotified tribes. The economic programmes which have so far consisted of grants and subsidies for the various productive operations like Agriculture, Forestry, Village and Small Scale Industries, etc., are proposed to be intensified to supplement the production programme. The tempo of the spread of education among the Backward Classes is proposed to be stepped up and grant of scholarship, stipends, etc., would be encouraged to take increased advantage of the available technical courses with a view to improve the employment potential of the tribal people. The working of the existing tribal blocks is proposed to be improved by providing large trained personnel by intensifying and expanding the existing training facilities. To improve the living and working conditions of the tribal and Scheduled Caste people greater emphasis will be laid on services like water supply, approach roads, health facilities which comprise rural amenities. Attention is also to be given to the amelioration of the working conditions of scavengers and sweepers, etc.

4. Compared with the relative percentage of Scheduled Tribe and Scheduled Caste population and the allocations made thereunder to other States, Orissa will be entitled to a larger outlay than what has been provided for. About 64 T. D. blocks have been started during the Third Plan which have to be continued during the Fourth Plan. Besides, large amount would be necessary for the expansion of the T. D. blocks to cover areas having 50 per cent tribal concentration and for extending special assistance to areas having less than 50 per cent tribal concentration. Orissa will be entitled to another 50 T. D. blocks according to the revised yardstick of 50 per cent tribal population. A large provision is also necessary to be made for health, housing and other schemes under the Central Sector than what was provided in the Third Plan. For all these considerations an outlay of Rs. 10 crores is proposed in the State Sector

and Rs. 15 crores in the Central Sector for the Fourth Plan. The economic programmes will be about 40 per cent and the education programmes about 50 per cent of the total outlay. The break-up under the different heads of allocation is broadly as follows :—

<i>State Sector—</i>		(Rupees in Crores)		
-----		Scheduled Tribes	Scheduled Castes	Total
Education	..	3.80	1.00	4.80
Economic development	..	3.50	0.24	3.74
Health housing and other schemes	..	1.10	0.36	1.46
Total	..	8.40	1.60	10.00

<i>Central Sector—</i>		Scheduled Tribes	Scheduled Castes	Denotified tribes and others	Total
-----		Rs.	Rs.	Rs.	Rs.
Education	..	0.67	0.37	0.11	1.15
Economic uplift	..	11.71	1.14	—	12.85
Health, housing and other schemes.	..	0.83	..	0.17	1.00
Grand total	..	13.21	1.51	0.28	15.00

5. The bulk of the provision is proposed to be utilised for the benefit of Scheduled Tribes so as to bring them on par with non-tribal population. Out of the outlay of Rs. 10 crores in the State Sector Rs. 8.40 crores is proposed to be utilised for the benefit of the Scheduled Tribes and Rs. 1.60 crores for Scheduled Castes. In the Central Sector out of the outlay of Rs. 15 crores Rs. 13.21 crores is proposed to be utilised for the benefit of Scheduled Tribes and Rs. 1.79 crores on Scheduled Caste and denotified Tribes.

Education Programmes :

6. For providing better education facilities to the tribal people it is proposed to open 20 Ashram Schools, set up 195 hostels, 800 teachers' quarters, one training centre for training Ashram School teachers and 2 comprehensive schools for imparting integrated education to tribal children so as to fit them into the small and village industries and other technological developments that are growing up around them and provide Rs. 60 lakhs towards stipend and reading and writing materials to about 55,000 tribal students. Besides, it is proposed to set up 2,000 Chatshalis in the most backward tribal areas and 70 residential Primary Schools and upgrade Sebashrams to U. P. standrad. It is also proposed to convert 10 Ashram Schools to High Schools with residential accommodation and open Class VIII and Class IX in Ashram Schools in order to provide scope for employment to the tribal boys in the industries requiring technical personnel an artisans with qualification below Matriculation. For the benefit of the Scheduled Caste population it is proposed to provide Pre-Matric stipends to 80,000 students and set up 67 hostels for the different M. E. Schools and High Schools. In the Central Sector it is proposed to provide 10 residential Primary Schools for girls and 16 girls' hostels and Post-Matric stipends to 2,000 tribal students for the Scheduled Tribes and set up 10 girls' hostels and provide Post-Matric stipends to 6,000 students for the Scheduled Caste population.

Economic uplift Programme :

7. The programme of Jhum Control and resettlement of shifting cultivators which was taken up in the Third Plan is proposed to be intensified and expanded to other areas in the Fourth Plan and the resettlement programme is proposed to be integrated with the Tangia method of cultivation and 30,000 tribal families settled in suitable forest blocks where bench terracing will be introduced and horticulture and forest based industries will be developed. There are about 2 lakh most primitive tribal population categorised as 'A' Class tribal population who have to be rehabilitated and brought on par with other advanced tribal population. The settlement scheme which was taken up in the Third Plan will be extended in the Fourth Plan. It is proposed to rehabilitate these primitive tribes by providing necessary facilities such as agriculture, horticulture, poultry rearing, village and cottage industries and other programmes. Besides, it is proposed to provide stipends on a liberalised scale to the tribal students for technical training and provide subsidies for development of cottage industries, lak cultivation, tussar rearing, piggery and goat breeding, pisciculture development, development of orchards and supply of seeds, bullocks and implements to the Scheduled Tribe people for agricultural production programme. The programme for the

Scheduled Caste population includes subsidies to agriculturists for permanent improvement of land and development of cottage industries, location of weavers' co-operatives, etc. In the Central Sector it is proposed to set up a number of purchase and sale units on co-operative basis and 180 Forest Co-operatives for the benefit of the Scheduled Tribes and housing facilities to sweepers and scavengers through construction of 1,000 houses and development of 100 house sites and locating 50 service co-operatives of fishermen for the benefit of the Scheduled Caste people.

Denotified tribes :

8. A larger provision has been made for the denotified tribes and the programme includes provision of Pre-Matric and Post-Matric stipends and lump grant for reading and writing materials, 3 residential schools and construction of 300 unit of houses. In addition it is proposed to provide subsidies for agricultural and industrial aid to about 500 persons belonging to the denotified tribes. The recommendation of the Special Working Group on Co-operation has been accepted and it is proposed to organise 10 Service Co-operatives for the benefit of the denotified tribe in the Fourth Plan. Each co-operative will be given a subsidy of Rs. 20,000 towards working capital, management, etc.

(26) SOCIAL WELFARE

The Third Plan provision under Social Welfare is Rs. 13.32 lakhs in the State Sector. In addition to this, the Central share of expenditure is expected to be Rs. 7.45 lakhs. It is proposed to provide an outlay of Rs. 1.50 crores in the Fourth Plan in the State Sector to expand the welfare activities in the State. The Social Welfare Programme includes the Welfare Extension Projects set up by the State and Central Social Welfare Board with Government assistance and programmes relating to Social and Moral Hygiene and After Care Services and Social Defence. These Welfare activities will be undertaken through the agency of various voluntary organisations. Under the Welfare Extension Projects and Project Implementing Committees, the Social Welfare Programmes relating to Women's Welfare, Child Welfare of the physically handicapped persons will also be continued in the Fourth Plan. The question of pensions for disabled and old persons is under consideration of the State Government. If finally it is decided to introduce a scheme in this regard, the provision for Social Welfare will be suitably augmented.

(27) LABOUR AND LABOUR WELFARE

The State's Third Plan outlay for Labour and Labour Welfare Programme is Rs. 12.20 lakhs which is proposed to be raised to

Rs. 30.00 lakhs during the Fourth Plan. The following outlay has been suggested under different programmes:

	(Rs. in lakhs)
(1) Multipurpose Welfare Centre and Labour Welfare.	22.80
(2) Employees' State Insurance Scheme.	5.07
(3) Employment Services ..	2.13

Multipurpose Welfare Centres and Labour Welfare:

2. The Multipurpose Welfare Centres provide educational, recreational and cultural facilities for the industrial workers and their dependants to enable them to take up subsidiary occupation to supplement their income. By the end of the Third Plan 6 Multipurpose Welfare Centres will have been set up. During the Fourth Plan it is proposed to set up 10 centres. Besides, it is proposed to set up productivity wings for assisting the private employers in raising the production and the State-owned industrial units for effective use of man-power, training of Trade Union workers, social benefit schemes and stipend to workers' children.

Employees' State Insurance Scheme:

3. This scheme provides medical benefits to the insured industrial employees under the Employees State Insurance Act. The provision in the Third Plan is Rs. 9.52 lakhs out of which one-seventh is the State share. In the Fourth Plan it is proposed to provide Rs. 40 lakhs out of which the State share will be Rs. 5.07 lakhs. It is proposed to set up 13 Employees' State Insurance Dispensaries besides 25-bedded T. B. Ward and 25-bedded Medical Ward in the specialised hospitals.

Employment Services:

4. As against the Third Plan outlay of Rs. 3.98 lakhs it is proposed to provide Rs. 2.13 lakhs under the scheme for opening of two sub-offices, 30 Employment Information and Assistance Bureau and upgrading of 4 District Employment Exchanges.

(28) WATER-SUPPLY AND SANITATION

Urban Water-supply & Sanitation:

In the Third Plan, Urban Water-supply Scheme in 19 towns has been taken up with an outlay of Rs. 139.27 lakhs. The estimated cost to complete these 19 schemes is Rs. 500.71 lakhs. A sum of Rs. 12.96 lakhs was spent during the Second Plan and Rs. 135.27 lakhs is expected to be spent in the Third Plan period on the schemes.

The first phase of the scheme has been completed in 16 towns which will provide water at the rate of 8 to 10 gallons per day per head. In the second phase water-supply connections will be provided in the residential houses and the supply will be raised to 25 gallons per day per head. The balance requirement to complete the second phase of the scheme is Rs. 352.48 lakhs which is proposed to be provided in the Fourth Plan.

2. The Sewerage scheme at Cuttack was taken up at an estimated cost of Rs. 232.70 lakhs. During the Second Plan, Rs. 12.57 lakhs was spent. The outlay provided in the Third Plan under the scheme is Rs. 48.11 lakhs. The scheme has not been completed and is proposed to be continued in the Fourth Plan. It is also proposed to extend the sewerage scheme to Rourkela, Sambalpur and Puri in the Fourth Plan. An outlay of Rs. 147.52 lakhs has, therefore, been proposed under this programme.

Rural Water-supply:

3. Top priority has been given for providing drinking water facilities in the rural area and a Master Plan has been drawn up for each district for providing minimum facilities according to the extent of the population in the village. The Master Plan is being implemented by the Panchayat Samitis and financed out of the pooled resources available under different programmes like Community Development, Welfare of Backward Classes, National Water-supply and Sanitation and Local Development Works. About 40 per cent of the villages are expected to be covered by the end of the Third Plan and the remaining 60 per cent are yet to be covered.

4. The problem of water-supply is formidable in some areas on account of difficult terrain. Nearly 75 per cent of the area is hilly and 14 per cent saline, the remaining 11 per cent being less difficult areas. According to the Health Survey Report of Government of India the four coastal districts lie in endemic zone and four other districts namely, Sambalpur, Keonjhar Bolangir, and Dhenkanal lie in epidemic zone where water-borne disease occur frequently. To tackle this problem protected water-supply scheme has been taken up in the villages.

5. Special Investigation Division has been set up to investigate the availability of water-supply in the villages with priority to the difficult and scarcity areas, endemic zones and backward areas. It is estimated that the total requirement for completing the programme is about Rs. 39 crores. The Third Plan outlay on National Water-supply Scheme which was originally fixed at Rs. 15 lakhs has been augmented to Rs. 78.98 lakhs to meet the larger requirement. Considering the magnitude of the programme and the limited State resources it is proposed to provide an outlay of Rs. 4 crores during the Fourth Plan under this programme.

(29) PUBLIC CO-OPERATION

In the Third Plan a provision of Rs. 2.07 lakhs has been made, representing the 40 per cent State share. In the Fourth Plan the outlay is proposed to be Rs. 15 lakhs which is almost seven-fold of the Third Plan outlay. The distribution of the outlays under different programmes is broadly as follows:—

	(Rs. in lakhs)
(i) Lok Karya Kshetra (Rural)	3.6
(ii) Lok Karya Kshetra (Urban) ..	1.4
(iii) Planning Forum ..	3.0
(iv) National Consumers Service	0.3
(v) Research Training and Pilot Projects.	4.2
(vi) Measures to strengthen voluntary organisations.	1.2
(vii) Educational work and prohibition.	1.30
Total ..	15.00

(30) PUBLICITY

The outlay in the Third Five-Year Plan for Publicity is Rs. 34.00 lakhs as against Rs. 24.35 lakhs in the Second Plan. A substantial expansion of publicity programmes is considered to be necessary during the Fourth Plan period. An outlay of Rs. 80.00 lakhs is being proposed for the Fourth Plan. Some of the important schemes being proposed under this programme are as follows:—

- (1) Zonalisation of Audio-visual Publicity
- (2) Replacement and purchase of additional mobile unit
- (3) Opening of three Information Centres in three Revenue Divisional Headquarters.
- (4) Expansion of the scheme of Production of Information Literature.
- (5) Introduction of a scheme for mailing service of Informative Bulletins and Handouts, etc.
- (6) Organisation of Plan Exhibitions
- (7) Mobile Exhibition Unit

- (8) Organisation of an Information Service
- (9) Community Listening Scheme
- (10) Maintenance of Community Listening Sets
- (11) Conducted tour of Journalists
- (12) Opening of District Film Libraries and Expansion of State Film Library.

(31) STATISTICS

During the Fourth Five-Year Plan it is proposed to set up a suitable Primary Reporting Agency for collection and compilation of Agricultural Statistics. The suitability of different agencies and other details are being examined. The Central Working Group for Agricultural Statistics have also recommended setting up of the Primary Reporting Agency for Agricultural Statistics in Orissa. They have indicated that the total outlay for such a scheme during the Fourth Five-Year Plan would be of the order of Rs. 180 lakhs. It is proposed that this amount should be provided in the Fourth Five-Year Plan. This is a very heavy amount and it will not be possible for the State Government to accommodate this amount in the State Plan ceiling. We, therefore, propose to provide a sum of Rs. 10 lakhs to meet the expenditure on account of the staff to be appointed at the State and district headquarters. Balance of Rs. 170 lakhs should be provided under the Central Sector and outside the State Plan ceiling.

2. It is proposed to take up some important Agronomic and Agro-economic studies during the Fourth Plan.

3. The survey of Small Scale & Cottage Industries which has been started during the last period of 1964-65 is to be continued and survey of Panchayat Industries in the State is to be taken up during the Fourth Five-Year Plan. In the sphere of Labour and Employment there is a huge dearth of statistics. To fill up the gap for catering to the needs of Government for planning and administrative purposes, it is proposed to take up surveys and studies on some important items such as Family Living Studies, Employment and Unemployment studies, etc. As desired by Registrar-General of India Annual Sample Census of Population is to be taken up. In the technical and research side it is proposed to suitably strengthen various sections of the Bureau for taking up research studies and preparing analytical reports.

It is also proposed to take up a programme for abstraction of research papers published in different journals received in the Bureau.

4. For all these programmes the headquarters of the Bureau, the District Statistical Offices and the field agencies for undertaking various surveys have to be very much strengthened during the Fourth Five-Year Plan. The field staff have to be provided with quick means of transport for effective supervision and inspection of various field programmes.

5. To meet the demand of trained statistical personnel for various statistical programmes to be taken up during the Fourth Five-Year Plan in the Bureau as well as in other departments of the State Government well co-ordinated training programmes have to be provided in the Fourth Five-Year Plan.

6. It is proposed to limit the plan ceiling to Rs. 55 lakhs, the breakup of which is given below:—

		(Rs. in lakhs)
(a)	Primary Reporting Agency (Headquarters and District Statistical Offices).	10.00
(b)	Research Programmes Technical Studies, etc.	15.00
(c)	Strengthening the field agency for conducting different surveys.	30.00
Total ..		55.00

SECTION V

DISTRICT AND BLOCK PLANS

The State Government attaches great importance to area planning. To achieve wide spread economic activity, it is necessary, first to create work in areas where people are living now, secondly the creation of work must be done with a reasonable order of investment, thirdly the production methods to be planned for must be relatively simple and they should be in conformity with the levels of technology obtaining in different areas but keeping in mind the improvements in technology that can be effected by extension, training and education. It is felt that unless there are well-worked out detailed local plans of operation, it would become difficult to lead the economy towards the economic goals on the desired path, in a co-ordinated manner. It is not enough to have Statewise physical

targets and indications of financial outlays. In as many fields as possible, it is necessary to work out in advance what has to be done, how, where, when and at what cost.

2. For Area Planning the district is obviously the most suitable unit. The State Government has undertaken preparation of district plans in the following fields :—

- (1) Agricultural production and allied programmes
- (2) Activities encompassed within the Community Development Budget.
- (3) Elementary and Secondary Education
- (4) Health and Water-supply programmes
- (5) District and Rural Roads
- (6) Village, small and block industries and technical training

The first priority is being attached to preparation of district and block agricultural plans. Obviously the basis of planning has to be the availability of assured water. The approach to agricultural planning has been discussed in the section dealing with Agriculture. It is proposed to have district targets, plans and outlays for schemes under Agriculture, Animal Husbandry, etc. Just as for Agriculture, the district Industrial plans are being based on the resources available in different districts. The task of preparation of district plans is proposed to be done through the different heads of departments at the first instance. Later they will be co-ordinated and dovetailed into integrated district plans at the District Collector's level and included in the State Plans. To begin with agricultural planning, two districts have been selected for pilot studies.

3. Economic indicators have been worked out for different districts and the deficiencies revealed in different districts in various fields are proposed to be kept in mind while finalising the district plans. Within the districts, it is felt that for a proper and integrated development of an agro-industrial economy, it would be desirable to take about three blocks in a compact area with an urban centre for each unit. At this centre can be provided the modern servicing, commercial and social facilities required for the development of Industry and Agriculture in that area. It is proposed to take up, on a pilot basis for developing area planning technique, three or four such areas for detailed planning before the beginning of the Fourth Plan.

SECTION VI

BACKWARD AREAS

Balanced regional development is not only important in the National context but is equally significant for smaller regions such as districts and lower administrative divisions. It is as much necessary to bring about quicker development of backward States with reference to progressive ones as it is desirable to bring the less developed districts to the level of advanced districts within any State. The problem of balanced regional development does not end with districts. Conceptually it can proceed further until a situation arises when there is no scope for differentiation on the basis of levels of consumption, educational and other amenities, etc. available to the people in the entire country. This extreme position while being logically sound is rarely tenable in practice as no two regions, in whatever way that term may be defined, can be made identical either in their pace of economic development or levels of consumption. The physical endowment of an area being the principal determinant of its economic well-being, will lead to divergent rates of growth. However, our present objective is limited to steps required to bring about rapid development in districts considered backward keeping in mind the requirements of achieving the overall State targets. It may be pertinent to mention that the so-called advanced districts in a State like Orissa may be much behind a backward district in another State.

2. Keeping these observations in view, we should so formulate district and local plans in Orissa that the pace of economic development of those areas is specially accelerated. This may be possible by increasing the quantum of investment in the backward districts. More State level projects and schemes are proposed to be concentrated in those districts so that apart from growth generated by the district level schemes, additional development potential is created in the shortest possible time. Simultaneously care will have to be taken to see that local people are enabled by education and training to participate in these developmental programmes.

3. Before doing so, it is essential that the backward districts or the backward blocks within a district are clearly identified. Unless that is done on a scientific basis, accelerated investment programmes would fail to produce the desired results. We must, therefore, correctly assess the resources available in the area and the development potential already created in the past. For this purpose, resource development studies are urgently required in each of the districts as well as Blocks.

4. Under the present circumstances, it may be difficult and time-taking to conduct resource surveys in all the Blocks in Orissa. Data in respect of a few indicators of economic development for each of the 313 Blocks may not be easy to gather. We have seen from our experience that statistical information on certain items is not even available for each of the districts. We may, therefore, concentrate on the districts for the time being. According to a study on Regional Economic Development based on a few (18) economic indicators suggested by the Planning Commission, all the districts (13) of Orissa have been ranked in respect of their level of economic development. It was found that 8 districts are below average while 5 are above it. If we consider each of the indicators, the position would differ. A district which is above the average on an overall basis may lag behind on particular counts. As for example, Sambalpur district which has an index of 118, is below the State average for several indicators. This is more or less true for all the 5 districts. Similarly, a district which is least developed, is above the average in respect of one or two indicators. It would, therefore, be desirable to consider each economic indicator separately to identify the districts where development in respect of particular indicators is not satisfactory or is below that of other districts. Having done that, it would be necessary to increase investment in that district so that, its achievement in respect of the indicator, say employment in factories or extent of double cropped area, would be better than before. If investment programmes are designed keeping this objective in view, balanced regional development would be achieved sooner than if no specific action is taken towards that end.

5. A few districts, viz., Koraput, Kalahandi, Phulbani and certain areas in Ganjam district were selected for working out special development programmes. For these district plans the study conducted by the Planning Commission's group, on the Eastern Districts of Uttar Pradesh has been kept in view. The plans are under preparation. The urgency of preparing district and local plans with a view to accelerating investment has also been kept in view. All these are by way of advance action during the Third Plan period so that, by the time of the commencement of the Fourth Plan, special investment programmes could be undertaken in those districts. The investment programmes are expected to utilise fully the local resources as it is no use starting a project in an area incapable of producing the human and material resources required for the project. In case a project is implemented in an area without reference to the availability of the requisite resources, it would have no impact on the local economy.

6. Steps already taken to accelerate development in a few backward districts of Orissa may be briefly mentioned here. In order to facilitate preparation of agricultural production plans in each Block on a realistic basis, the crop-cutting experiments conducted

by the Bureau of Statistics are being reoriented. Special surveys are currently being conducted to fill up gaps in our knowledge in respect of improved agricultural practices. Correlating increase in output with flow of inputs is expected to contribute a good deal to increased agricultural production.

7. In the field of man-power, steps have been taken to increase the output of Matriculates by establishing Schools with better educational facilities such as Hostels and trained teachers. It is noticed that Tribal and Scheduled Caste students are not passing Matriculation examination in large number in the backward districts due to lack of proper educational facilities. To remove this difficulty, new schools with free hostel accommodation for the backward communities are being established. Technical training Institutions are being located in backward areas so that young men and women belonging to backward communities would be trained in different trades for meeting the man-power requirements of projects located in their own areas.

8. Small and Medium Industries are being established in Panchayat headquarters in backward districts. To facilitate quicker development, ancillary facilities such as electric power, communication facilities, etc. are being created on a priority basis.

9. Other facilities in the field of marketing such as the establishment of warehouses, cold storage units, etc. are being created in rural areas. These facilities are likely to be expanded considerably during the Fourth Plan period.

10. Wherever feasible, important projects are being located in backward areas. These are like growth poles around which development of the region is likely to be faster than hitherto. The C. D. Block Offices are themselves contributing to growth of rural areas. This is particularly significant in backward areas.

11. To sum up apart from the Tribal and Rural Welfare plan, which is specially meant for Backward areas and weaker sections, the special efforts to bring up backward areas are being built into the different sectoral programmes.

SECTION VII

STRENGTHENING OF ADMINISTRATION AND PLANNING MACHINERY

The failure or success of the Plan outlined in the previous sections will be determined to a large extent by the failure or success of the administrative machinery which will implement the programmes. The following steps are proposed to be taken to strengthen administration and planning machinery.

(1) As far as possible, a single agency will be kept responsible for the implementation of each scheme. Stress will be on individual responsibility.

(2) The required delegation of financial and administrative powers to persons who will be in charge and also the nature of decentralisation that will be necessary to implement (1) above are being worked out and they will soon be given effect to.

(3) Along with the identification of executing and supervision authorities for different schemes and delegation of suitable powers to them, some of the existing procedures will also have to be rationalised so that quicker and more purposive decisions are taken and systematically implemented.

(4) Development programmes which have a commercial nature are proposed to be implemented largely through the agency of State Corporations.

(5) More attention than hitherto will be paid to preplanning and accurate estimating and required institutional framework set up for this purpose in different departments. For each scheme as far as practicable, realistic but definite targets, time and cost schedules will be laid down and implementing agencies will be expected to work to these targets.

(6) The work of the Officers-in-charge of plan implementation will be judged by and large on the basis of their performance as indicated in (5) above.

(7) The organisation for review and evaluation will be strengthened. There will be an arrangement for review in each department and also a competent Cell will be there in Planning Department to keep the progress of Planning schemes in constant review so that in case of a short-fall or divergence from the desired path, timely and effective action can be taken. Adequate arrangements for progress reporting and analysis will also have to be made. In addition there will be a strong Evaluation and Efficiency Audit Organisation at the State headquarters.

(8) Steps will be taken to ensure more effective co-ordination and harmonious functioning of different branches of Government at different levels namely at the State level, Division level, District, Subdivision and Block levels, specially in the field of agricultural production.

(9) The yearly targets for programmes and projects will be fixed after fully taking into account the requirements and availability of funds, materials, machinery and personnel. Detailed plans of operation will be drawn up for each scheme under the different development heads. Care will have to be taken to see that all complementary measures have been provided for and phased in a

co-ordinated manner. This will involve a more systematic and adequate examination of programmes in the Planning & Co-ordination Department which may have to be suitably strengthened for the purpose.

(10) The tasks indicated above will involve a great deal of improvement in the capacity and quality of the administrative personnel. In certain departments it will also mean increasing the staff strength. Work study methods are proposed to be introduced to increase the output, eliminate waste of time and effort and improve the quality.

(11) Suitable long-term and short-term staff policies and training programmes are being evolved to get the best out of the available talent and also to develop the capabilities of the personnel keeping an eye on the needs of the future.

(12) Integrated district plans are proposed to be drawn up, specially for those programmes which have an impact on agricultural production. The potential and needs of different areas will determine the pattern of development. Therefore, a small Area Planning Organisation is proposed to be started first at the State headquarters and after the technique of planning has been developed in a few pilot areas, it will be extended to all the districts.

(13) At the district level, it is proposed to make the Collector organically responsible for agricultural development and other schemes involving public participation programmes and to equip him with adequate powers. The subject is being studied and necessary steps will soon be taken. The S. D. O. will also be given a clear responsibility in the field of agricultural development programmes.

SECTION VIII

LIST OF MAJOR PROJECTS

Irrigation

The major projects being proposed during the Fourth Plan period are under Industries, Irrigation and Power sectors. A list of major and medium irrigation projects showing spill over and proposed outlays may be seen at Appendix A. All the major and medium irrigation projects included in draft Fourth Plan are now under investigation. In case of extension of distributary No. 2 of Jajpur Canal, the project report has been prepared and furnished to C. W. I. C. The project report of Dahuka Irrigation Project has been prepared. As regards other new projects, investigations are in different stages.

Power

2. Under Power, the list of schemes is at Appendix B. No new power generation project is being proposed.

Industries

3. The task of planning and setting up large scale industrial projects has been placed in charge of the "Industrial Development Corporation of Orissa"—an Orissa Government undertaking. The minimum necessary technical personnel to plan the projects up to the stage of invitation of tenders, etc., has been recruited. It is proposed to strengthen this Cell substantially during the Fourth Plan period and in fact the intention is to develop it into a strong Planning—Designs and Engineering Bureau with the following functions :—

- (i) *Consulting and Planning*—Product suggestion, process selection and recommendation for optimum sizes and location, capital requirements and production costs, plant studies on economic feasibility.
- (ii) *Basic Engineering*—Preliminary engineering calculations, flow diagrams, main process equipment specification, operation standards.
- (iii) *Project evaluation and management*—Modification for site conditions, calculation of mutual relation of whole plant, arrangement drawings, compilation of definite project budget.
- (iv) *Design Engineering*—Detailed engineering and design, including final working drawings for buildings, structures, foundations ; site development drawing ; process equipment, design and plant arrangement, utility plant design, selection and arrangement of automatic controls and instrumentation, piping, electrical wiring and lighting and plant facilities as maintenance shop, analysis room, storage and material handling ; complete mechanical specification, lists of construction materials ; code and standard for design ; selection of spare machines and spare parts.
- (v) *Procurement*—Purchasing and expediting of all materials and equipment ; selection and co-ordination of sub-contractors, inspection of machinery and equipment, planning of transportation and packing of goods.
- (vi) *Construction*—Installation and fabrication of equipment and erection of plant according to the above-mentioned designs, specifications and instructions.
- (vii) *Plant start-up*—Inspection for results of construction works at site, test running and adjusting of each process, start-up of whole plant.

4. The Planning, Design and Engineering Bureau will take up direct responsibility of the project from (i) to (iv). In the matter of procurement and construction, it will act as consultant to the Chief Project Officer. During start-up it will remain responsible till the guarantee test is over.

5. Besides these activities, the Planning, Design and Engineering Bureau will have a special cell for initiating the project after proper co-ordination of statistics collected by Bureau of Statistics, Director of Industries, Irrigation & Power and other Government Departments.

Organisation

6. The industries pertaining to the scope of Planning, Design and Engineering Bureau normally belong to five types :—

- (1) Metallurgical
- (2) Chemical
- (3) Mechanical
- (4) Electrical
- (5) Refractory

7. Besides these, the assistance of the Civil Engineers and Cost Accountant Section will be required for priming any industry. Therefore we hope to start with these seven divisions with about 110 Engineers and Assistants. Initially, all of them will be engaged for preparation of preliminary reports. As the preliminary reports will be approved, they will be reoriented to definite cell as already described above for executing the project. After sometime, when the work-load will increase, definite cells will be created with more number of able engineers and technicians.

8. As a preliminary to the development of this organisation, a nucleus planning cell has been started and it has already produced the Project Report in respect of Talcher Complex. Till such time as the above organisation is fully developed, assistance in planning of projects is also taken from qualified Consultants. A list of Industries proposed to be taken up during the Fourth Plan period is at Appendix C.

APPENDIX A .

Sl. No.	Name of scheme	Spill over to Fourth Plan or provision during Fourth Plan
1	2	3
CONTINUING SCHEME		
<i>Major</i>		
1	Hirakud Stage I	448.77
2	Mahanadi Delta	1508.17
3	Salandi	389.32
4	Anandpur	1148.81
<i>Medium</i>		
1	Salia	103.37
2	Salki	9.59
3	Budhabudhiani	25.78
4	Godahado	13.65
5	Dhanei	21.03
6	Derjang	230.29
7	Bahuda Stage I	24.92
8	Hiradharbatti	0.98
9	Joro-Harbhangi	361.50
10	Pitamahal	46.29
11	Remodelling H. L. C. Eng. II	20.00
12	Investigation	..
13	Research Institute	239.89
Total—Continuing Schemes		4592.36
NEW SCHEME		
<i>Major</i>		
1.	Potteru	400.00
<i>Medium Projects</i>		
1	Machhagat	65.00
2	Baghua	65.00
3	Neeradi	70.00
4	Dahuka	48.25
5	Dujerbahal	40.00
6	Extension of Disty. No. 2 of Jajpur Canal	32.12
7	Saipal	40.00
8	Salchua Tangana	200.00
9	Ong Stage I	820.00
10	Patheral	25.00
11	Saldihi	35.00
12	Jharbandh	30.00
13	Ramiala	150.00
14	Budhabalang	90.00
15	Investigation	50.00
Total—New Schemes		1620.37
Grand Total		6212.73 or say 62.00 crores

APPENDIX B

Continuing Schemes		Spill over outlays in crores
Hirakud Stage I	..	0·56
Balimela	..	25·08
Talcher Thermal	..	2·79
Transmission and Distribution	..	10·25
NEW SCHEME		
Transmission and Distribution	..	5·25
Rural Electrification	..	12·00
Advance action for expansion of Talcher Thermal and Indravati Hydro-Electric Projects.		4·50

PROJECTS TAKEN UP BY THE INDUSTRIAL DEVELOPMENT CORPORATION OF ORISSA, LTD. IN THE THIRD FIVE-YEAR PLAN PERIOD

WITH CAPACITY OF PRODUCTION

Name of Projects	Capacity in Third Plan	Additional capacity in fourth Plan
1. Hirakud Industrial Works	100,000 tonnes per year Fabrication & light engineering goods (300 tons per day).	..
2. Kalinga Iron Works	.. 100,000 tonnes Iron per year 36,000 tonnes pipes per year 5,000 tonnes specials per year	......
3. Cement Project	.. 438,000 tonnes (1,200 tonnes a day). Portland Cement per year.	200,000 tonnes (600 tonnes a day).
4. Cables Projects	.. 3,000 tonnes ACSR Cables 360 Tonnes Enamelled covered wires. 300 tonnes paper and cotton covered strips.	.. .. ..
5. Re-Rolling Mill	.. 15,000 tonnes Steel rolled bars and angles. 2,500 tonnes Aluminium Rods 700 tonnes Copper Rods	......
6. Tiles	.. 5,000,000 Nos. Roofing Tiles and bricks.	..
7. Surnandi Salt Works	.. 30,000 tonnes Salt	.. 150,000 tonnes Salt.
8. Ferro-Chrome Project	.. ..	10,000 tonnes Chromium alloys.
9. Power tiller	.. ..	6,000 Nos. power tillers.

STATE SECTOR—INDUSTRIAL PROJECTS FOR THE FOURTH FIVE-YEAR PLAN

Sl. No.	Name of the Project	Capacity
(1)	(2)	(3)
1	Expansion of Power Tillers	.. 12,000 numbers a year
2	Cement Plant near Rourkela (Also Slag Cement).	360,000 tonnes a year
3	Steel Casting	.. 6,000 tonnes a year
4	Expansion of Bargarh Cement	.. 150,000 tonnes a year
5	Soda Ash	.. 132,000 tonnes a year
6	Cement (Koraput)	.. 540,000 tonnes a year
7	Talcher Industrial Complex	.. 160,000 tonnes pig iron a year 90,000 tonnes Urea a year Tonnes Fertiliser a year
8	Ferro Vanadium	.. 200 tonnes of Ferro Vandadium and 30,000 tonnes of Vanadium Pig Iron.
9	High Tension Insulators	.. 2,500 tonnes a year
10	Beta Napthal and Aniline	.. 900 and 1,200 tonnes a year
11	P. V. C. Cables	.. 15 million crores yard of P. V. C and 270 miles of power cable (Plastic insulated).
12	Hirakud Workshop Expansion (in addition to the expansion already undertaken in Third Plan).	
13	Expansion of Ferro Chrome	.. 15,000 tonnes a year
14	Sponge Iron	.. 150,000 tonnes a year
15	Nuts, Bolts and Rivets	.. 3,000 tonnes a year
16	Construction of equipments	.. ..
17	Expansion of Talcher (Fertiliser 2nd streame of Urea).	90,000 tonnes a year
18	Pig Iron Plant at Paradeep	.. 300,000 tonnes a year
19	Block industries	

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