

**EDUCATION IN THE FIFTH FIVE YEAR PLAN
1974—79**

**A PAPER
PREPARED FOR THE CONSIDERATION
OF
THE CENTRAL ADVISORY BOARD OF EDUCATION**

**MINISTRY OF EDUCATION AND SOCIAL WELFARE
GOVERNMENT OF INDIA
NEW DELHI
1972**

ICD - PD - 2-5

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CONTENTS

	<i>Paragraphs</i>	<i>Pages</i>
Introduction	1	1
Main Ingredients of Programme	2	1
Transformation of Education System	3—10	3
Objectives	3	3
Improvement of Curricula	4	3
Supplementary Measures	5	5
Informal Education	6	7
Linkages with Other Systems	7	7
Elasticity and Dynamism	8	8
Implementation	9	8
Costs	10	8
Improvement of Standards	11—20	9
School Stage	14—17	10
University Stage	18—19	11
Costs	20	12
Pre-school Development	21—23	12
Universal Primary Education for the Age-group 6-14	24—43	13
Basic Structural Functional Changes	25	13
Magnitude of the Task	26—27	14
Three Phases of Development	28	14
Special Programmes	29	16
Implementation	30	16
Enrolments	31	18
Costs	32—33	18
Salaries & Allowances of Teachers & Contingent Expenditure	34	19
Buildings & Equipment	35—36	20
Ashram Schools	37	20
Ancillary services	38	21
Total Cost	39—40	22
Cost of Qualitative Improvement	41	23
Total Cost	42—43	26

(ii)

	<i>Paragraphs</i>
Expansion and Improvement of Secondary Education	44—51
Broad Guidelines	47
Expansion	48
Costs of Expansion	49
Programmes of Qualitative Improvement	50
Total Costs	51
Vocationalisation of Secondary Education	52—60
Adoption of a Uniform Pattern of School and College	
Classes	61—69
Main Implications	63
Implementation	64—67
Costs	68—69
Higher Education	70—76
Guidelines in Relation to Expansion	71
Expansion	72—74
Programmes of Qualitative Improvement	75
Total Costs	76
National Scholarship Policy	77—87
Scholarships on Merit	79—80
Scholarships for Scheduled castes & Scheduled tribes	81—83
Scholarships for the most under privi- leged groups of society	84—86
Costs	87
Establishment of Nehru Youth Centres & the Informal Education of the Youth	88—93
Adult Literacy	94—96
Other Programmes	97—100
Language Development	97
Games and Sports	98
Cultural Programmes	99
Text-Book Presses	100
Strengthening of Administration	101—105
Financial Implications	106—109
Advance Action	110
Statistical Tables	
Development of Education in India	

INTRODUCTION

1. The present socio-political situation in the country provides a favourable setting for developing large-scale programme of educational reform. It is, therefore, proposed to include, in the Fifth Five Year Plan, an integrated and comprehensive programme of educational development which will catalyse social transformation, promote economic growth and accelerate our progress towards socialism. It is also proposed that this and the next year should be utilised, not only to plan this programme in all its details, but also to initiate a vigorous advance action towards it.

Main Ingredients of the Programme

2. The Education Commission (1964-66) emphasised that the present educational system will need radical changes if it is to meet the purposes of a modern, democratic and socialist society—changes in objectives, in content, in teaching methods, in programmes, in size and composition of the student body, in the selection and professional preparation of teachers, and in organization. The major steps to be taken to this end have been outlined in the National Policy on Education, (1968). On the basis of these documents, it is proposed that the main ingredients of the programme of educational development to be included in the Fifth Plan would be the following:

(1) *Transformation of the Educational System* : This is essential to make education a powerful tool of social transformation, economic growth, modernization and national integration. It implies a radical transformation of the content of education accompanied by such related reforms as the adoption of improved methods of teaching, examination reform and improvement of textbooks and other teaching and learning aids.

(2) *Improvement of Standards* : This will include a programme of establishing a model comprehensive secondary school in each district and a model primary school in each community development block as pace-setting institutions, the establishment of autonomous colleges, the upgrading of a fairly large number of primary, middle and secondary schools and colleges to optimum levels, and an effort to improve other institutions to the best extent possible, through institutional planning and local support supplemented by guidance and assistance from the State.

(3) Initiation of a comprehensive programme of pre-school development meant specially for the under-privileged social groups.

(4) The provision of universal primary education in the age-group 6—11 by 1975-76 and in the age-group 6—14 by 1980-81.

(5) The adoption of the uniform pattern of school and college classes, viz., 10+2+3, in all States and Union Territories.

(6) Vocationalization of education at the higher secondary stage.

(7) The development of a national scholarship policy so that the talented students, and especially those coming from the most deprived sections of the community, are assisted to receive the best school and university education.

(8) The launching of a youth movement for the population in the age-group 14—25.

(9) Reorganization of collegiate and university education, with special reference to (a) provision of greater access to students from the under-privileged social groups, (b) expansion of facilities for part-time education or self-study, (c) improvement of colleges, (d) substantial increase in post-graduate education and research, (e) drastic restructuring of courses on the principles of relevance, flexibility, diversification and modernization coupled with adoption of modern methods of teaching, examination reform and improved library and laboratory facilities, and (f) major administrative reforms on the lines recommended by the Gajendragadkar Committee.

(10) Development of technical education.

(11) Introduction of a large-scale programme of National Social Service; and

(12) Strengthening of the administrative machinery to plan and implement this significant programme of expansion and qualitative improvement.

A brief description of these programmes, with broad tentative estimates of cost, is given in the sections that follow.

II

TRANSFORMATION OF THE EDUCATIONAL SYSTEM

Objectives

3. Perhaps the most significant need of the hour is to transform the educational system with a view to

- cultivating the basic values of humanism, democracy, socialism and secularism;
- inculcating a love of motherland, and a proper pride in our cultural heritage and achievements;
- strengthening national integration which implies the development of proper non-communal attitudes, the subordination of all narrower loyalties to the supreme loyalty to the nation, and, in a plural society like ours, the development of capability for tolerating differences and a readiness to collaborate with others in pursuit of shared goals;
- accelerating the process of modernization and the development of a scientific temper and outlook;
- promoting productivity through the teaching of technical and technological skills, inculcation of the dignity of manual labour, willingness to work hard, cost-consciousness and entrepreneurship; and
- bringing the elite and the masses closer together so that the former retain their roots deep in all sectors of society and become committed to the service of the people.

Education is essentially a three-fold process. It imparts information, teaches skills and inculcates values. Our present system is almost wholly geared to the first, a little to the second and only marginally to the third. The need to transform the educational system on the above lines so that the teaching of skills and inculcation of values get their due emphasis is thus obvious : it alone can make education a powerful tool for social change and the realization of our national objectives.

Improvement of Curricula

4. What are the main programmes that should be adopted for this purpose? The first and the foremost is the re-structuring

and modernisation of curricula on the broad lines indicated below :

(1) The inculcation of values should be emphasised at all stages.

(2) The cultural content of education needs much greater emphasis.

(3) The story of our struggle against British imperialism, the achievements of the post-independence period, our national objectives and programmes of development with special emphasis on popular participation, and the national problems that face us in different fields, should be taught at all stages, as a part of 'education for citizenship', the courses being graded to suit the age and maturity of the students.

(4) At the primary stage, the curricula should be closely related to the environment so that they appear relevant and significant to the children. In addition to the three R's, programme of work-experience related to local programmes of development and of social service related to the welfare of the local community and its needs will have to be included. The improved teaching of languages, science and mathematics should be emphasised.

(5) As recommended by the Education Commission, the teaching of science and mathematics should be made compulsory in classes I—X and its teaching should be modernized and closely related to environment. The use of simple apparatus and tools should be emphasised.

(6) The alienation from manual labour takes place most conspicuously at the secondary stage. It is also at this stage that the white-collar attitudes are strongly developed. Some steps to counteract these trends would have been taken by the introduction of work-experience and social service in the curricula of classes I—VIII. In addition, it is absolutely essential that the teaching of a craft or a trade is made obligatory on all students in classes IX and X so that they engage themselves meaningfully in production and socially useful work.

(7) At the higher secondary stage, the curriculum should broadly follow the lines recommended by the Education Commission. There would be two main streams at this stage. The first would prepare students for the university and include a number of elective courses covering mathematics, natural and

social sciences and humanities. A fairly wide combination of courses, cutting across traditional boundaries, should be permissible. The other stream should be vocational and would prepare students for careers in agricultural, industrial and services sector as well as for various programmes of self-employment.

(8) At the university stage, there is an even greater need to restructure and improve the existing courses on the principles of relevance, flexibility, diversification and modernization. Several of our courses are out-dated, in some cases, by as long as 30—50 years. It is essential that these are all updated and brought in line with the latest developments in the field. Most of our courses are still discipline-oriented and traditional so that they tend to ignore the inter-disciplinary fields and problem-oriented studies which are now assuming increasing significance. It would, therefore, be a great improvement if a flexible system of courses is designed so that a student can choose, within a broad framework, such courses as will be in keeping with his needs and capacities. Perhaps the introduction of short semester length courses will offer each student a greater possibility of devising a combination of studies that is most suited to his needs and abilities.

(9) Special attention will have to be given to the restructuring of courses at the under-graduate stage. The first degree should provide a broad general education with three components. The first component is an awareness of the world around, a sense of values, and a commitment to the ideals and practical goals which the country has placed before itself. This implies a knowledge of human affairs at the level of individual, of society and of history, the main elements of the social and economic struggle, our Constitution and our plans, field work and social service, and elements of philosophy, fine arts and literature. The second component is the promotion of communication skills which implies training in language, speech and writing; and the third component is an academically-oriented study of some selected subjects.

(10) At the postgraduate stage, greater emphasis will have to be placed on promotion of research and on a symbiotic combination of teaching and research.

Supplementary Measures

5. A restructuring and modernisation of curricula on these lines is the first essential step in this programme. But it is not sufficient. It will have to be accompanied by four complementary steps simultaneously.

(1) *New Teaching Methods* : The first is to replace the existing teaching methods, which are largely based on rote-memorisation, orientation, lectures and re-production, by new and dynamic ones which awaken curiosity, encourage self-study habits and promote problem-solving skills.

(2) *Examination Reform* : The existing examination system has to be radically reformed. Schools and colleges should be made to take continuing and increasing interest in evaluation, through a system of internal evaluation. All school examinations including the examination at the end of class X, should ultimately be held by the schools themselves and the first public examination should take place at the end of class XII. At the university stage also, the colleges should be involved in continuous evaluation of their students and the scheme of 'autonomous colleges' should be adopted and expanded. The universities and Boards of Secondary Education should reform their examination systems immediately and thus give a lead to the entire education system.

(3) *Improved Production and Supply of Text-Books* : A great stress will have to be laid on improvement of textbooks at all stages. At the school stage, the programmes of the NCERT and the State Boards (or Bureaux) of School Text-Books will have to be extended, improved and properly co-ordinated. At the university stage, both the UGC and the universities have a major role to play; and, as the Education Commission recommended, the bulk of the books used at the undergraduate stage at any rate, should be prepared by Indian authors and that our dependence on imported books in this regard should cease as soon as possible. Careful steps will have to be taken to ensure that the new textbooks incorporate Indian data and research findings and thus become both relevant and significant. A massive programme of book production and supply and textbook libraries under which no student would have any difficulty in having full and free access to all the textbooks that he needs will have to be developed.

(4) *Teachers Involvement and Upgrading of Professional Skills* : The success of the programme will depend largely on the competence of the teachers, their commitment to the welfare of the students in their charge and their dedication to their profession. Steps will, therefore, have to be taken to involve teachers intimately in the planning and implementation of all these programmes, to provide them with satisfactory conditions of work and service and to emphasise their proper training,

especially in-service training, for which a very massive programme will have to be developed at all stages.

Informal Education

6. Another major transformation needed in the present educational system is to give it a large informal orientation. The existing system is a *single-point entry* (in class I at age 5 or 6), *sequential* (so that a student rises from class to class each year), and *full-time* system of education operated exclusively by formally certificated full-time teachers. Such a system is socially unjust and denies educational opportunities to large sections of the people. For instance, to have a rule that we shall operate only a full-time system of education denies education to all these children who are required to work, in or outside their families, for social and economic considerations. That is the main cause why several children cannot come to schools and for the bulk of those that drop out. However, no programme of life-long education can ever be possible on a full-time basis alone. Similarly, the single-point entry also hampers our progress. For instance, if a child does not go to school at about the age of six, he misses the system altogether and lives and dies as an illiterate person. If, on the other hand, we had a multiple-entry system under which a child could enter the school at the age of six, or in full-time or part-time special classes at the age of 11, or again in similar special classes conducted for age-group 14—23, or in adult education programmes, our progress in literacy would have been much greater. In the same way, the insistence on full-time and duly certificated teachers prevents us from utilising the large teaching resources available in the community on a part-time basis, especially for education in the arts and crafts or in vocational education. What is needed, therefore, is the development, at all stages of education, of two alternative channels to the existing system of full-time education, namely, part-time education (or correspondence courses) and system of private or self-study. These alternative channels should have the same status as full-time education and it should be possible for a student, depending upon the circumstances, to switch over from one to the other. There should also be a possibility of multiple entry at various points and students should be free to appear, by private study, at all Board and University examinations.

Linkages with Other Systems

7. A third transformation of the existing educational system is to link it in a big way with informal agencies of education such

as the mass media. A similar linkage is also necessary with institutions for preparation of games and sports, recreation, arts and culture. These linkages will make the curricula richer and the educational process more effective.

Elasticity and Dynamism

8. The existing system tends to be uniform and rigid; and as the Education Commission pointed out, the single most important thing needed now is to get out of the rigidity of the present system. It is, therefore, essential to promote dynamism and elasticity and to encourage initiative, creativity and freedom on the part of schools and teachers.

Implementation

9. These programmes of transformation have received comparatively less attention in the earlier plans due to several reasons. The quantitative targets of enrolments received the vast bulk of allocations and tended to dominate the whole scene. In the general practice to review plan expenditure only, these programmes which have lower financial implications and cover both plan and non-plan sectors, did not attract enough notice. The emphasis on money as *the* input for educational development also tended to overshadow these programmes wherein the major inputs are, *not* money, but 'thought', 'human effort' and 'leadership'. Similarly, an undue emphasis on uniformity tended to make the educational system rigid and stagnant. As against this, it is proposed, in the Fifth Plan, to accord the highest priority to these programmes, to keep them continuously under review, to provide the funds needed for them on a priority basis, to involve the teachers in planning and implementing them, and to create the necessary institutional structures to provide guidance and direction.

Costs

10. The following programmes under this head will have to be costed:

- (1) Introduction of work-experience in classes I—VIII;
- (2) Teaching of a compulsory trade or craft in classes IX and X;
- (3) Teaching of Science in classes I—X;
- (4) Improvement of text-books;

(5) Provision of free supply of text-books and educational materials for all needy students of the primary and middle school stages; establishment of adequate text-book libraries in secondary schools, colleges and universities;

(6) Strengthening of programmes for pre-service and in-service education of teachers which will include the establishment of a National Council of Teacher Education at the centre, Boards of Teacher Education in the States, expansion of pre-service training facilities where needed, and the development of a large programme of in-service education at all stages; and

(7) Strengthening the institutional structure to develop the programme which include UGC, NCERT and the National Staff College for Educational Planners and Administrators (Proposed to be established), the further strengthening of the State Institute of Education, strengthening of the Central Ministry of Education and the State Education Departments, and the creation of an adequate machinery for guidance and development at the district level.

The costs of these programmes have been costed, as shown, for convenience, under the relevant stage or sector of education.

III

IMPROVEMENT OF STANDARDS

11. Equally important and urgent is the need to raise standards. The naive belief that all education is necessarily good, is not valid; and it is now agreed that, depending on its quality education can be a powerful tool of progress or may even lead to disintegration. The quality of education which is thus always extremely significant will become all the more so in the Fifth Plan when our investments in education are expected to increase substantially. A programme of qualitative improvement must, therefore, have the second highest priority in our programmes for the Fifth Five Year Plan.

12. What is the most crucial programme for improvement of standards? The answer obviously is to adopt, what is generally known as the 'seed-farm' technology. In this concept, the first step is to set up a few institutions of quality, like seed-farms, the number of these institutions depending largely upon the

resources available, especially in terms of teachers. The second step is to see that the excellence generated in this first level or pace setting institutions spreads out to a much larger group of second level institutions which are strategically distributed all over the countryside. The third and the final step in the process is to see that the excellence generated in these two groups of institutions spreads to every educational institution. Although these three stages have been described as successive, for purposes of convenience, it is obvious that they are not necessarily so and that it is not only possible but also extremely desirable to begin simultaneously on all the three fronts.

13. For convenience, this problem has been discussed separately for the schools and the university stages.

School Stage

14. *Model Schools* : As the first programme of pace-setting institutions, it is proposed to establish a model comprehensive secondary school in each district and a model primary school in each community development block. This is necessary because all the ideas of the transformation of the educational system which have been stated in the preceding section will have to be put on the ground under somewhat controlled and favourable conditions before they can be extended to others. A good deal of imagination, vision and managerial skill is necessary to organise these pace-setting institutions and to ensure that all available talent and material resources are utilised to the best advantage.

15. These model schools will have three distinct functions:

(1) They will be 'demonstration centres' in the sense that they will show how a primary or secondary school can and should function. This aspect of their programme should be organised in such a way that it is reproducible and every effort should be made to see that these programmes are taken up by other schools in their neighbourhood.

(2) They will also provide 'extension services' to the neighbouring schools. For instance, they could maintain circulating libraries and mobile laboratories; they could provide in service education for teachers; they could provide special courses of instruction for talented students; and so on. In short, they could function as focal points which, through their extension services will strive to make the programme of every school in the neighbourhood richer and better.

(3) They will provide good education to talented children coming from the most under-privileged sections of the community. Since resources are limited and good education cannot be immediately provided to all, it is essential that admissions to our good schools are regulated on the basis of merit and social justice. These model schools would, therefore, be provided with adequate hostel facilities and at least 25 per cent of their seats would be reserved for children coming from the socially and economically deprived groups who would be paid suitable scholarships. This will de-link 'quality' from 'privilege' and will be a progressive step, especially from the point of view of socialism.

Improvement of Selected Schools

16. The second programme would be to raise about 10% of the schools (including especially the larger schools with enrolments of 300—400 or more) to optimum levels. These will also function as demonstration centres and provide some extension services to the schools in the neighbourhood. But they will not have the residential and scholarship component of the model schools.

Improvement of Other Schools

17. The third programme will be to strive to improve the other schools to the best extent possible, partly through local support and partly through state assistance and guidance.

University Stage

18. Similar programmes will have to be developed at the university stage also. Here, the role of the pace-setting institutions will have to be performed by the universities themselves. At the collegiate level, the autonomous colleges may function as 'pace-setting institutions' and steps will have to be taken to upgrade 10% of the colleges to optimum levels on the basis of adequate enrolments, staff and facilities. In addition, assistance will have to be provided to all viable colleges to raise their standards.

19. While improving every educational institution to optimum levels is desirable as the ultimate objective of policy, the resources for so large a programme are obviously not available. This modified programme where about 1% of the institutions would function as high-level or pace-setting ones, about 10% would be raised to optimum levels and every institution would be raised to certain minimum levels is, therefore, a feasible and more

realistic alternative. This is what we should strive to achieve by the end of the Fifth Five-Year Plan.

Costs

20. Estimates of cost of this programme have been included separately at each stage for reasons of convenience.

IV

PRE-SCHOOL DEVELOPMENT

21. At present, the facilities of pre-school education are very limited. The existing pre-schools are mostly fee-supported, privately managed, and urban in location. They, therefore, meet the needs of mostly the middle and upper classes in these areas. By and large, these facilities exist only to a very limited extent in the rural sector and for the poor and the under-privileged social groups who really need them most. It has now been established that unfavourable socio-economic conditions, malnutrition and lack of education adversely affect the development of pre-school children of the weaker sections of the community and thus lead to great inequalities of educational opportunities. It is, therefore, essential to develop a well-planned and fairly large-scale programme of pre-school development in the Fifth Five-Year Plan.

22. This problem was examined by a Committee, appointed on the recommendation of the Central Advisory Board of Education, under the Chairmanship of Shrimati Mina Swaminatham. It has proposed a feasible and realistic programmes. It suggests that the total number of children who benefit from the different programmes of pre-school education (i.e. education, health nutrition and welfare) should be raised to 10% of the population of the age-group 3-6 by 1980-1981 as against about 1% that receive these benefits at present and that its coverage should be limited, in view of the paucity of resources, to children from the most under-privileged groups, viz., from urban slums, poor rural families and tribal areas. It has also recommended a variety of operational models suited to differing urban and rural conditions with a view to making the programme both economical and efficient.

23. The recommendations of the Mina Swaminathan Committee on pre-school development, therefore, need our earnest consideration and inclusion in the Fifth Five-Year Plan. The programme will cost a total of about Rs. 100 crores of which Rs. 25 crores is being provided in the Education Plan. The balance of Rs. 75 crores will be included in the Social Welfare Plan.

V

UNIVERSAL PRIMARY EDUCATION FOR THE AGE-GROUP 6-14.

24. The provision of universal primary and middle school education for all children in the age-group 6-14 is a Constitutional Directive and ought to have been fulfilled by 1960. For various reasons which need not be discussed, this could not be done. It has now been decided that universal primary education for all children in the age-group 6-11 should be provided by 1975-76 and for those in the age-group 11-14 by 1980-81. This is a basic programme of the highest priority and will naturally claim great attention and a very large proportion of available funds.

Basic Structural-Functional Changes

25. If this goal is to be realised on the basis of the existing system of primary education, (i.e. a single-point entry, sequential and full-time system), it will be necessary.

- (a) to enrol all children of the age of 6 in class I in 1973 and to continue such enrolment every year ; and
- (b) to ensure that every child enrolled in school from 1973 onwards will continue to study on a whole-time basis and will not be allowed to drop out until it reaches the age of 14.

This is an almost impossible task. It would, therefore, be necessary to change the existing system of primary schools by introducing three major modifications :

- (1) making multiple entry possible at 6+, 11+ and 14+;

- (2) adopting a large programme of part-time education to cover all children who have to work and cannot attend on a full-time basis; and
- (3) by utilising the services of national service volunteers, retired teachers, educated and skilled persons in the community, on a full-time or part-time basis.

Magnitude of the Task

26. It is necessary to realize the immense magnitude of the task. The total enrolment at the primary stage (or age-group 6-11) will have to be increased from an anticipated enrolment of 631 lakhs in 1971-72 to an enrolment of 862 lakhs by 1975-76 which means an average additional enrolment of 46 lakhs as against an average enrolment of 25 lakhs reached over the last ten years. At the middle school stage, the enrolment will have to be increased from 149 lakhs in 1971-72 to 450 lakhs in 1980-81 which implies an average additional annual enrolment of about 33 lakhs as against that of 7 lakhs reached over the last ten years.

27. When Article 45 of the Constitution was adopted in 1950, the expectation was that the provision of universal education in the age-group of 6-11 will need an additional enrolment of 360 lakhs of children and there was an optimism that this could be done in 10 years. In view of the considerable expansion achieved since then, the general impression is that the present decision to provide universal education in the age-group 6-14 by 1980-81 is easier. This is not so. As pointed out above, the present decision implies an additional enrolment of 562 lakhs in 8 years and is, therefore, far more formidable and difficult. It can be achieved only if a sizable programme of advance action is mounted in this year and the next.

The Three Phases of Development

28. The task is obviously stupendous and will have to be attempted in three phases which will have to be simultaneously pursued.

(1) The first phase is *universal provision of schools*. A quick survey of the existing situation will have to be taken to see that primary and middle schools will be established, in the next two or three years, within easy accessible distance from the home of every child.

(2) The second phase is that of *universal enrolment*. This has three important aspects :

- (a) It must be noted that nearly 80% of the non-attending children belong to three main groups : (i) girls; (ii) children from such weaker sections of the community as the landless agricultural labourers; and (iii) children of the Scheduled Castes and Scheduled Tribes including Vimukta Jatis and nomadic tribes. The State Education Departments, should, therefore, have to be adequately strengthened to look after the enrolment and attendance of these special groups.
- (b) The number of non-attending children is not equitably distributed between the different States and Union Territories. This is the least in the advanced group of States, e.g. Kerala, Tamil Nadu, Mysore, Maharashtra and Gujarat. But it forms a very large proportion of the total number of non-attending children in the less advanced States, like Uttar Pradesh, Bihar, Madhya Pradesh Rajasthan, Orissa and Jammu & Kashmir. The magnitude of the task and the expenditure involved will, therefore, show immense variations from State to State. The less advanced States are weak in organizations and poor in resources and yet it is their responsibilities that are the heaviest. The special financial needs of these States will have to be looked after by the Centre and their administrative arrangements for the programme will have to be specially strengthened.
- (c) The enrolment of tribal children and the children in sparsely populated regions for whom programme of Ashram Schools will have to be emphasised and expanded.

(3) The third phase is that of *universal retention*. At present the drop-out rates are very high. Of every 100 children that enter class I, only 40 reach class V and only 25 reach class VIII. The drop-out rates for girls are higher than those for boys. The rates for the Scheduled Castes are even higher and those for the Scheduled Tribes are probably the highest. Steps will have to be taken to ensure that these large-drop-outs rates are reduced or eliminated that every child enrolled in class I will remain in school till he completes the primary course or reaches the age of 14.

Special Programmes

29. Five main programmes will have to be developed from this point of view :

- (a) A system of part-time education will have to be introduced, especially for the age-group 11-14. The general principle should be that every child in the age-group 6-14 shall attend school, on a full-time basis, if possible and on a part-time basis, if necessary.
- (b) The second is the provision of ancillary services to help poor children. This will include the provision of free books and other learning materials, mid-day meals and even clothing.
- (c) In order to enrol girls and keep them at school, creches and pre-schools will have to be attached to primary schools because most of the older girls have to look after the young children at home. These need not be costly as they can be run with the help of locally recruited women (who may be suitably trained) and by a cooperative arrangement between the older girls themselves.
- (d) The quality of education will have to be improved so that the power of the schools to attract and retain children is considerably increased.
- (e) Educative propaganda for adults will also help in this direction. In some cases, welfare services to the family will have to be provided.

Implementation

30. From the point of view of implementation, the following points deserve special notice :

- (1) As stated above, establishment of primary and middle schools in all places necessary is a priority task which should be completed in the next two to four years.
- (2) A campaign to enrol all children of age 6-7 in class I should be mounted in 1973 and kept up every year till 1980-81. This will help to reduce the large proportion we now have of under-age and over-age children at the primary stage.
- (3) In spite of this, many children in the age-group 6-11 would have missed entering the school. Moreover, many

children in this age-group will also drop out. It is therefore necessary to provide a large scale programme of part-time education for them. This should begin in 1972-73 and continue till 1975-76 when about 58 lakhs of children will be attending schools on a part-time basis. However, as time passes, the enrolment of children on full-time basis will continually tend to increase. As the economic conditions improve and the schools become more efficient, the capacity of parents to send children to schools on a whole-time basis will correspondingly increase and the drop out will also correspondingly decrease. It has, therefore, been assumed that beginning with 1976-77, the part-time enrolment at this stage will continually decrease, and that the need for it would have practically disappeared by the end of 1980-81, when the enrolment in classes I-V would have reached 892 lakhs—all on a full-time basis.

- (4) The enrolment of children in the age-group 11-14 on a full-time basis will continue to increase at the present rate. It has been estimated that this will increase from 149 lakhs in 1971-72 to 282 lakhs in 1980-81. To achieve full enrolment, therefore, 168 lakhs of children of the age-group 11-14 will have to be brought in under a programme of part-time instruction. Obviously, at this stage, enrolment on part-time basis will continue for quite some time beyond the Fifth Five-Year Plan. It may also be pointed out that the classes of part-time education at this stage will fall in three broad categories; (a) classes for children who never went to school; (b) classes for those who went to school but dropped out before class V, and (c) classes for children who dropped out after completing class V. Special Syllabi for all these types of classes will have to be prepared; special teaching methods will have to be adopted, suitable timings will have to be arranged; and teachers will have to be properly oriented. It will also be desirable to allow children of less than 11 and more than 14 to attend these classes if they so desire.

Enrolments

31. The following table shows the over-all enrolments at a glance:—

Elementary Education : Enrolment Targets

(in lakhs)

Year	I—V			VI—VIII		
	Full-time	Part-time	Total	Full-time	Part-time	Total
<i>Total Enrolments</i>						
1971-1972	631		631	149		149
<i>Additional Enrolments</i>						
1972-1973	38	10	48	10	6.0	16.0
1973-74	33	15	53	11	8.4	19.4
	76	25	101	21	14.4	35.4
<i>Fifth Plan</i>						
1974-75	38	22	60	12	10.8	22.8
1975-76	39	31	70	13	14.4	27.4
1976-77	21	—15	6	14.5	18.0	32.5
1977-78	21	—15	6	16	22.8	38.8
1978-79	22	—16	6	17.5	28.8	46.3
	141	7	148	73.0	94.8	167.8
<i>Sixth Plan</i>						
1979-80	22	—16	6	19	28.8	47.8
1980-81	22	—16	6	20	30.0	50.0
	44	—32	12	39	58.8	97.8
<i>Total Enrolments</i>						
1980-81	892	..	892	282	168	450

Costs

32. The total cost of a programme of universal primary and middle school education, developed on traditional lines, would be very high—about 3 to 4% of the national income. This will have to be considerably reduced to make the programme

financially feasible. This will be possible through the following measures:

- (1) The adoption of the system of part-time education.
- (2) The appointment of young graduates as voluntary teachers (as a part of national service scheme) who may be paid a suitable allowance. Such voluntary service on the part of the graduates should be given special consideration while recruiting persons to Government service and the age requirements may be relaxed in accordance with the period of service they put in.
- (3) The use of part-time teachers available in the community and especially of retired teachers.
- (4) Harnessing local support.
- (5) Cutting down the cost on buildings and improvising equipment with local materials and labour.

These concepts have been taken into consideration while costing the programme.

33. The costs of the programmes can be conveniently discussed under two separate heads: (1) costs of additional enrolments; and (2) costs of qualitative improvement.

Cost of Additional Enrolment

34. *Teachers Salaries and Contingent Expenditure* :— On the assumption that the average total salary of a teacher (including allowances) is Rs. 2.00 per month and that the teacher-pupil ratio will be 1:40, the cost per student in a primary school is roughly Rs. 80 per year. Similarly, on the assumption that the average salary (including allowances) of a teacher at the middle-school stage is Rs. 250 per month and the teacher-pupil ratio 1:35, the average annual cost per student in the middle school will be Rs. 120. Both these estimates assume that the non-teacher costs would roughly be 25 per cent of the teacher costs.

For part-time instruction, the cost will be about half of this, i.e. Rs. 40 per year at the primary stage and Rs. 60 per year at the middle school stage.

On the above assumptions, the cost of enrolling 141 lakhs of additional children on a full-time basis and 7 lakhs of additional children on a part-time basis at the primary stage would be

Rs. 435 crores for the Plan Period. Similarly, the cost of enrolling 73 lakhs of additional children on a full-time basis and 94.8 lakhs of children on a part-time basis at the middle-school stage will come to Rs. 390 crores for the Plan Period. The total cost of the additional enrolments during the Fifth Five-Year Plan, on account of teacher's salaries and allowances and contingent expenditure, would thus be Rs. 825 crores.

35. Buildings and Equipment : A large number of existing primary and middle schools are housed in unsatisfactory buildings, the proportion of buildings with unsatisfactory accommodation being estimated to be as high as 50% . We shall, therefore, have to provide buildings for all new enrolment in the Fifth Five-Year Plan (141 lakhs in classes I - V and 73 lakhs in classes VI-VIII) and to about half of the enrolment at the end of the Fourth Five-Year Plan (366 lakhs in classes I - V and 85 lakhs in classes VI-VIII). The financial implications of this are colossal, about Rs. 997.5 crores. It has, therefore, been assumed that the new techniques of school-building construction developed at the Central Building Research Institute, Roorkee, will be used to reduce the costs by half, that at least half the cost of the buildings would come from the local community (except in very poor localities or tribal areas) and that, in a large number of villages, the local community would be able to provide all the buildings needed. It is, therefore, proposed to make a token provision of Rs. 100 crores only for buildings. Needless to say, this provision implies that a big effort will be made to harness the local community support for provision of school buildings in all parts of the country.

36. The question of equipment in primary and middle schools also presents a similar problem. The equipment in many existing schools is unsatisfactory and it will have to be provided to all the new schools and additional enrolments. It is assumed, here also, that the local communities will come forward to equip their schools generously and provision has, therefore, been made only at Rs. 5 per child for 120 lakhs of additional children in primary schools and at Rs. 20 per child for 70 lakhs of children in middle schools, or Rs. 20 crores in all. Equipment needed for work-experience and science education has been provided separately.

37. Ashram Schools : For the tribal areas and other sparsely populated localities, it will be necessary to increase the provision of Ashram Schools. It is proposed to establish the 1000 additional Ashram Schools during the Fifth Five-Year Plan

Period, providing accommodation to about 2 lakhs of children in classes I-VIII. The cost of this programme will be Rs. 60 crores. Of this, Rs. 30 crores (at Rs. 3 lakhs per school) would be non-recurring and needed for building of the School, equipment, teachers' quarters and hostels. The recurring cost will be Rs. 30 crores roughly at about Rs. 50 per student per year. This amount will be provided in the Social Welfare Plan.

38. Ancillary Services : In order to enrol the non-attending children (who are mostly girls and children belonging to the poorest sections of the community, a liberal provision of ancillary services (e.g. free supply of text-books, supply of clothing and attendance allowances or scholarships and mid-day meals) will be required. A rough estimate of the requirements of this programme is given below :—

(a) *Mid-day Meals* : One mid-day meal costs about 20 paise. With 200 days of attendance in a year, the cost of mid-day meal programme is Rs. 40 per child per year. It may ultimately be necessary to provide mid-day meals to about 30% of the total number of children enrolled. At the end of the Fifth Five-Year Plan, the total number of children enrolled in primary and middle schools would be 1,132 lakhs. It is, therefore, estimated that about 350 lakhs of children will have to be provided with mid-day meals at the end of the Fifth Five-Year Plan as against about 100 lakhs of children that are given some sort of school meals at present. The additional children who will receive mid-day meals would, therefore, be about 250 lakhs and the cost of the programme at Rs. 40 per child per year will be Rs. 300 crores. Since resources of this order are not likely to be available, it is assumed that mid-day meals will be provided to about 100 lakhs of additional children in the Fifth Five-Year Plan. The cost of even this limited programme would be Rs. 120 crores.

(b) *Free Supply of Text-books and Stationery* : At the end of the Fourth Five-Year Plan, the enrolment at the Primary Stage will be 732 lakhs and roughly 30% of these children, i.e. 220 lakhs, will have to be provided with text-books and stationery. At the end of the Fifth Five Year Plan, this figure rise to 260 lakhs. The cost of this programme at Rs. 4 per child per year would be Rs. 48 crores.

At the middle school stage, the enrolment at the end of the Fourth Five-Year Plan will be 184 lakhs and 30% of this enrolment or 55 lakhs of children will have to be provided with

text-books and stationery. At the end of Fifth Five-Year Plan, this figure will rise to 106 lakhs. The cost of this programme at Rs. 10 per child per year will be Rs. 40 crores during the Plan Period.

The total cost of this programme would, thus, be Rs. 88 crores.

(c) *Grant of Clothing and Attendance Allowance* : For many poor children, the grant of clothing and attendance allowances will be necessary. In the case of girls, special programmes would be needed to assist women teachers to work in the rural areas. For all such programmes, it is proposed to make a lump sum provision of Rs. 37 crores.

The total provision needed for ancillary services, therefore, would be Rs. 260 crores.

39. **Total Cost (Expansion)**: The total cost of the expansion programme at primary and middle-school stages, therefore, would be as follows:

(Rs. in crores)	
(1) Salaries and allowances of teachers and contingent expenditure	825
(2) Buildings	100
(3) Equipment (excluding that for Science and Work-Experience) .	20
(4) Ashram Schools (provided in the Social Welfare Plan) . .	—
(5) Mid-day Meals	120
(6) Free Supply of Text-books and Stationery	88
(7) Grant of Clothing and Attendance Allowances, etc. . . .	37
TOTAL	1,190

40. From the above total, a deduction might be made on account of the use of volunteer teachers who may be paid at the rate of Rs. 125 p.m. instead of the salaries of Rs. 200 p.m. and Rs. 250 p.m. which have been assumed for primary and middle school teachers. Even if the proportion of such volunteer teachers is assumed to be one in four, the total saving would come to Rs. 84 crores in a year (when the full strength of those teachers would be 7 lakhs in a total of 28 lakhs of teachers). In the Plan Period, therefore, the saving may be assumed at Rs. 200 crores; and the total cost of the expansion programme of primary and middle school education may be assumed at Rs. 990 crores.

Cost of Qualitative Improvement

41. At the primary and middle school stages, a good deal of additional investment would be necessary for programmes of qualitative improvement. This has been indicated in the paragraphs that follow.

(1) *Work Experience*: It is proposed to introduce work-experience in classes I-VIII. This programme will need training of teachers and provision for equipment. The cost of training of teachers has been considered separately; the cost of equipment has been estimated at an average of Rs. 15 per child in full-time enrolment. As the enrolment at the end of the Fifth Five-Year Plan would be 1,132 lakhs, a provision of Rs. 170 crores would be required for this programme.

(2) *Science Education*: For improving science teaching at the primary stage, we need to supply simple equipment and trained teachers. The cost of training programmes has been provided for separately. The cost of equipment, assumed at Rs. 150 per school for 6 lakhs of schools, will need a provision of Rs. 9 crores.

At the middle school stage, we will have to provide equipment, additional teachers where needed, and training for teachers. The two latter items have been provided for separately. The cost of equipment has been assumed at Rs. 1,000 per school for two lakhs of schools. A provision of Rs. 20 crores has been made for the programme.

(3) *Teachers*: At the end of the Fourth Five Year Plan, the full-time enrolment in classes I-V would be 706 lakhs and that in classes VI-VIII would be 170 lakhs. It is estimated that on the basis of a teacher-pupil ratio of 1:40 at the primary stage and 1:35 at the middle school stage, there would be 17.5 lakhs of teachers in primary schools and 4.8 lakhs of teachers in middle schools or a total of 22.3 lakhs of teachers in primary and middle schools.

The additional full-time enrolment in the Fifth Five Year Plan in classes I-V would be 141 lakhs. This will need 3.5 lakhs of additional teachers. Similarly, the full-time enrolment in classes VI-VIII in the Fifth Five-Year Plan would be 73 lakhs and this will need 2 lakhs of additional teachers. In the Fifth Five-Year, Plan the total requirement of additional teachers

would thus be 5.5 lakhs. We may take a figure of 6 lakhs to correct any imbalance that may be left over at the end of the Fourth Plan.

The part-time enrolment in the Fifth Plan would be 102 lakhs (7 lakhs in Classes I-V and 94 lakhs in classes VI-VIII). On the basis of a teacher-pupil ratio of 1:20 this will need 5 lakhs of part-time teachers.

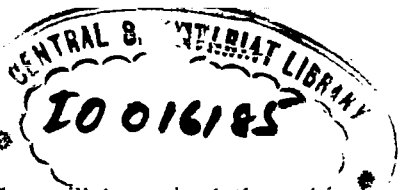
The total number of primary and middle school teachers at the end of the Fifth Plan would thus be 33 lakhs—28 lakhs full-time and 5 lakhs part-time.

The attrition rate at the primary stage is about 3% per year. On this basis, we may need roughly about 4 lakhs of additional teachers during the Plan Period.

The total requirement of additional teachers in the Fifth Five Year Plan would thus be 10 lakhs of full-time teachers and 5 lakhs of part-time teachers.

It is proposed to provide in-service education equivalent to 2 months to every teacher during the Plan Period to reorientate him to the new curricula and the new methods of teaching and examination. In the case of part-time teachers as well as new untrained teachers, this would be a period of initial reorientation. The cost is estimated at Rs. 200 per teacher. On this basis, a total expenditure of Rs. 66 crores will be needed to provide in-service education to 33 lakhs of teachers.

After full enrolment is reached, further expansion will be limited only to the increase in population. Our demand for additional teachers and training facilities would, therefore, sharply drop at the end of the Fifth Plan Period. We have at the moment 1600 training institutions which turn out about 1.5 lakhs of teachers per year. This is adequate to meet the future needs of primary and middle school teachers. It is, therefore, proposed that no major effort is needed to establish new training institutions and create additional training capacity except in States like Assam and West Bengal where the existing conditions are far from satisfactory. It is, therefore, proposed that only 100 new training institutions would be established in these areas and that in other areas, the emphasis would be on strengthening the existing institutions. The additional teachers re-



quired in the Fifth Five-Year Plan, will be trained through *ad hoc* improvised programmes which should be established in existing training institutions or in good selected secondary schools.

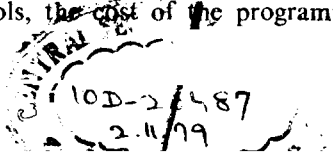
For each new training institution, we will need a non-recurring expenditure of Rs. 5 lakhs and a recurring expenditure of Rs. 6 lakhs for the Plan Period. The total requirement of each institution would thus be Rs. 11 lakhs. The total cost of the programme would, therefore, be Rs. 11 crores.

For strengthening and improving the existing teacher training institutions, it is proposed to provide a grant-in-aid of Rs. 1.25 lakhs for each of the 1600 institutions. Of this, Rs. 1 lakh is meant for buildings, equipment, training of staff, etc. and Rs. 25,000 for establishment of an Extension Services Department. On this basis, the cost of strengthening and improving the existing teacher training institutions would be Rs. 20 crores.

(4) *Model Primary Schools*: It is proposed to establish 5,000 model primary schools, one in each community development block. The cost of a model school (with an enrolment of 300) would be Rs. 1.55 lakh non-recurring and Rs. 2 lakhs recurring or Rs. 3.5 lakhs in all. On this basis, the total amount required for this programme would be Rs. 175 crores. This excludes the cost of hostels (Rs. 1.0 lakh per school) and scholarships (Rs. 1.5 lakhs per school) or Rs. 125 crores for the Plan Period. This will be appropriately shown under scholarships.

(5) *Improvement of Selected Schools*: It is proposed to upgrade primary and middle schools with an enrolment of 300 and above to optimum levels. For this purpose, a grant-in-aid of Rs. 10,000 would be given to each school for the Plan Period as a whole. For 60,000 schools, the total cost of this programme would be Rs. 60 crores.

(6) *General Improvement of Primary Schools*: It is proposed to give a grant-in-aid of Rs. 1,000 to each primary school, on an average, to raise it to prescribed minimum levels. For 5,40,000 primary schools, the cost of the programme would be Rs. 54 crores.



The total cost of the programmes of qualitative improvement at the primary and middle school stage would, therefore, be as follows:

<i>Item</i>	<i>Amount</i> (Rs. in crores)
(1) Work Experience	170
(2) Science Education	29
(3) In-service Education of Teachers	66
(4) Establishment of new Training Institutions	11
(5) Strengthening of existing Teacher Training Institutions	20
(6) Model Primary Schools	175
(7) Improvement of Selected Schools	60
(8) General Improvement of Schools	54
TOTAL	585

Total Cost

42. The total cost of the quantitative and qualitative programmes in primary and middle school education would, therefore, be Rs. 1,575 crores (Rs. 990 crores for expansion and Rs. 585 crores for quality).

43. It must be noted that, as between the different States, the total expenditure on the programme will vary immensely and in many States, it will not be possible to fit it within the State Plans on the traditional pattern. The possibility of keeping this expenditure as the first charge on the plan as a whole and then making the necessary funds available to each State outside its plan should, therefore, be explored.

VI

EXPANSION AND IMPROVEMENT OF SECONDARY EDUCATION

44. So far, the practice has been to assume a three-year course in Secondary Education (classes IX-XI) and to plan accordingly. It has now been decided to adopt the uniform pattern of 10+2+3 or a four-year course of secondary education

(classes IX-XII). For convenience of comparison, however, it is proposed to continue the earlier practice of costing and estimation and to deal with enrolments and costs off the twelfth year under a separate section on the adoption of the uniform pattern of 10+2+3.

45. A programme at this stage which is proposed to be emphasised is that of diversification or vocationalisation. This also will be dealt with in a separate section.

46. This section will, therefore, deal only with expansion (classes IX-XI) and qualitative improvement of secondary education.

Broad Guidelines

47. In the earlier plans, a major difficulty faced has been the paucity of resources allocated to secondary education so that most of the funds available for the secondary sector were spent on mere expansion, resulting in a deterioration of standards. The strategy to be adopted in the Fifth Plan should, therefore, be based on the following guidelines:

- (1) A higher priority and larger allocation should be given to the secondary sector.
- (2) While universal coverage is to be attempted in the age-group 6—14, the passage from middle school to secondary education should be dependent on performance at prescribed levels.
- (3) The existing indiscriminate expansion of secondary schools should be controlled. New schools should be opened on a planned basis so that they become viable, economic and efficient. Proper conditions of recognition should be laid down for all secondary schools and should be strictly enforced. Private managements of secondary schools should be required to contribute a prescribed proportion of the total cost. The over-emphasis on private enterprise which has characterised the past policies should be abandoned and the State should assume direct responsibility for further expansion of secondary education.
- (4) Vocationalisation should be emphasised so that the enrolments in general education are correspondingly slowed down.

- (5) As institutional full-time secondary education tend to get limited, correspondence courses should be started for all those who do not get enrolled in secondary schools but desire to study further. It should also be possible for private candidates to appear at all Board Examinations.

Expansion

48. On the basis of the current trends, the Planning Commission has estimated that, in the Fifth Plan, the additional enrolment in classes IX-XI will be 40 lakhs (25 lakhs of boys and 15 lakhs of girls) as shown below:

Year	Enrolment in lakhs		
	Boys	Girls	Total
1950-51	10.2	1.6	12.1
1955-56	16.5	3.3	19.8
1960-61	24.7	5.6	30.3
1965-66	40.1	11.8	51.9
1968-69	49.5	16.3	65.8
1973-74 (estimated)	71.0	26.0	97.0
1968-79 (projection)	96.0	41.0	137.0

This shows that the additional enrolments and average annual rates of growth (simple interest) are as follows:

	Additional Enrolment in lakhs			Average Annual Enrolment of Growth (simple interests)		
	Boys	Girls	Total	Boys	Girls	Total
I Plan	6.3	1.4	7.7	12.3	14.7	12.7
II Plan	8.2	2.3	10.7	9.9	15.9	10.6
III Plan	15.4	6.2	21.6	12.4	22.1	14.2
Three Annual Plan Years	9.4	4.5	13.9	7.8	12.7	8.9
IV Plan (estimated)	21.5	9.7	31.2	8.7	11.9	9.5
V Plan (projection)	25.0	15.0	40.0	7.0	11.6	8.2

It will be seen that the Planning Commission has assumed that the annual average rates of additional enrolment will

continue to fall. It is also possible to argue that they will rise because of the effort to expand primary and middle school education. However, we might accept the estimates with a proviso that they are rather conservative.

Costs of Expansion

49. The cost of a student at the secondary stage, during a Plan Period, may be taken at Rs. 800 (Rs. 200 non-recurring and Rs. 200 recurring). For an additional enrolment of 40 lakhs of students on a full-time basis, a sum of Rs. 320 crores would be needed in the Fifth Five-Year Plan for expansion alone. As the total allocation is not likely to exceed Rs. 400 crores, it is obvious that the allocation for expansion programmes will have to be restricted to Rs. 200 crores only. This implies that supplementary efforts would be needed to enlist local support for construction of school buildings and provision of equipment and that private enterprise would be required to raise larger contributions from its own resources. The question of development fees from students will also have to be examined. In areas which are already well provided with secondary education, steps may have to be taken to see that no new government schools are opened and that no grant-in-aid is given to private schools newly opened.

Programmes of Qualitative Improvement

50. The following programmes of qualitative improvement of secondary education will have to be developed during the Fifth Five-Year Plan Period:

(1) *Model Comprehensive Secondary Schools*: It has been decided to establish a model comprehensive secondary school teaching classes VI-XII in each district. The cost of each such model comprehensive secondary school may be taken at Rs. 20 lakhs during the Plan period (Rs. 8 lakhs non-recurring and Rs. 4 lakhs recurring). For 320 schools, the total expenditure required would be Rs. 64 crores. This excludes the cost of hostels (Rs. 4 lakhs per school) and of scholaraships (Rs. 6 lakhs per school) or Rs. 32 crores which will be provided under scholaraships.

(2) *Improvement of Selected Schools*: It is proposed to strengthen and improve 10% of the secondary schools. These

would include the larger and the more viable institutions, properly distributed in all parts of the country. In addition to whatever local support may be raised for the programme, it is proposed that a grant-in-aid of Rs. 40,000 per school should be made available. For 5,000 schools (10% of the total number of 50,000 schools), the total cost is estimated at Rs. 20 crores.

(3) *Improvement of Other Schools:* For the improvement of other viable secondary schools, estimated at about 22,000 a provision of Rs. 22 crores is proposed at Rs. 10,000 per school.

(4) *Text-book Libraries:* In order to make text-books accessible to all students, it is proposed to develop a programme of text-book libraries in secondary schools. A sum of Rs. 15 crores is being provided for this purpose which work out roughly at Rs. 11 per student in enrolment.

(5) *Science Education:* For improvement of science education at the secondary stage, it is proposed to provide a sum of Rs. 10,000 each for 30,000 schools (out of a total of 50,000). This will mean a total of Rs. 30 crores.

(6) *Training of Teachers:* For strengthening the pre-service education of teachers in areas like Assam and West Bengal, where the existing facilities are inadequate, a sum of Rs. 2 crores is provided. For improving the existing training institutions (which number about 300), a sum of Rs. 6 crores has been provided at Rs. 2 lakhs per institution. An additional sum of Rs. 20 crores is being provided for providing in-service education for secondary teachers which has a very high priority. The programmes of teacher training would, therefore, need a provision of Rs. 28 crores.

(7) *Other Programmes:* For development of other programmes, such as provision of vocational guidance, improvement of facilities for games and sports, improvement of libraries in secondary schools and development of programmes among the non-student youth in the locality, special programmes for the education of girls, a lump sum provision of Rs. 18 crores is proposed.

Total Costs

51. It will thus be seen that the total provision proposed for expansion and improvement of secondary education in the Fifth Plan would be Rs. 400 crores as under:

	(Rs. in crores)
1. Expansion of facilities	200
2. Model Comprehensive Secondary Schools in each district	64
3. Improvement of selected 10% schools	20
4. Improvement of Other Schools	22
5. Provision of Text-book Libraries	15
6. Science Education	30
7. Training of Teachers	28
8. Other Programmes	21
TOTAL	400

This does not include funds required for the adoption of the uniform pattern of school and college classes (10+2+3) and vocationalisation of secondary education, which are provided for separately.

VII**VOCATIONALISATION OF SECONDARY EDUCATION****Significance**

52. One of the major weaknesses of the present educational system is that 'secondary education fits a boy for a college and almost unfits him for everything else'. In any well designed national system of education, secondary education has two specific objectives :

- (a) to prepare a student for the University; and
- (b) to become really terminal and prepare a student for some vocation in life.

However, the whole programme is so arranged that the majority of the students go in the vocational courses and the pressures on university admissions are considerably reduced. In our

educational system, on the other hand, a vast majority of students (91%) go in for courses whose main objective is to prepare for the university and our enrolments in vocational courses at the secondary stage (about 9% of the total enrolment) are among the lowest in the world. This is why the Education Commission held great emphasis on the vocationalisation of secondary education. This programme must be attempted on a priority basis and in a big way in the Fifth Five-Year Plan.

Programmes

53. The following measures are needed from this point of view:

- (1) A common course of general education will have to be provided till the end of class VIII or age 14 for all children. But thereafter, the first attempt at vocationalisation should be made; and those students who want to enter the world of work quickly or have no aptitude for further studies in general education, may be diverted into appropriate vocational courses at the end of the middle school stage. The Education Commission estimated that it should be possible to divert 20% of the age-group into vocational courses at this stage.
- (2) In classes IX and X, as has been mentioned earlier, the teaching of a socially useful and productive craft or trade should be compulsory for all students. This will make it possible to divert a further proportion of students into appropriate vocational courses at the end of class X.
- (3) At the higher secondary stage, our objective should be, as the Education Commission recommended, to divert about 50% of the students into suitable vocational courses.

Main Difficulties

54. The main difficulties in the way of implementing this reform (which was also recommended by several commissions earlier) are the following and due measures would have to be taken to overcome them:—

- (1) The vocational courses at the secondary stage have now been largely devised for the organised industrial sector only (ITIs and Polytechnics). There are limited oppor-

tunities for employment in this sector. The main attempt in the field, therefore, is to change the character and quality of education in these institutions so as to assist the student to be self-employed. Necessary infrastructure for the provision of capital and tools, supply of raw materials and marketing of finished goods will also have to be created.

- (2) In the agricultural sector, hardly any attempts have been made to provide appropriate courses of education and there are very few institutions which correspond to ITIs or Polytechnics in the modern industrial sector. It is this area which will have to be largely explored and apart from training people for jobs under government or in agro-based industries, training programmes will have to be organised for enabling young men to take to agriculture and allied industries as a profession or personal enterprise.
- (3) Even in the services sector, there is enough scope for expansion in secretarial services and in paramedical personnel. Detailed work would have to be done in these sectors also.

55. This programme will be facilitated if estimates of manpower requirements for education at the secondary stage in different vocational courses are prepared and continually revised. They can be adopted as a basis of organising vocational programmes at this stage. This task will have to be attempted at the state level and preferably, with the district as the unit.

56. Links should be built between vocational courses at secondary stage and vocational or general courses at the university stage so that, if some students who have chosen a vocational career at the secondary stage desire to study further in vocational or general courses at the university stage, it should be possible for them to do so after certain further education or orientation, where necessary. Such links will encourage students to adopt vocational courses at the secondary stage itself.

57. The large wage differential which now exists between vocationally trained persons at the secondary stage and those educated at the university stage (whether in general or vocational courses) will have to be reduced so that the trend to adopt vocational courses at the secondary stage is strengthened.

58. Obviously, these programmes of vocationalisation will have to be jointly developed by the Ministry of Education and Social Welfare at the Centre in collaboration with the Ministries of Agriculture, Health, Home and Labour and Employment. At the State level, there will have to be similar but intimate coordination between the corresponding departments. At present, no adequate machinery for this purpose exists either at the Centre or in the States. This will have to be created on a priority basis.

Costs

59. The estimated cost of the programme will be as follows :

- (1) *Teaching of Craft in classes IX—X*: The arrangements for teaching of craft or trades in classes IX-X will have to be made in all secondary schools. The costs will vary depending upon the size of the school, the craft or trade selected, etc. Some facilities for this already exist in multi-purpose and other schools. On the whole, it has been assumed that these arrangements will have to be made in 40,000 schools and that the cost per school may be Rs. 20,000 for the plan period. The total expenditure required will thus be Rs. 80 crores.
- (2) *Vocationalization at the Higher Secondary Stage*^a Here the largest programmes will have to be developed in agriculture (in the Ministry of Agriculture), in health (in the Ministry of Health) and in the industrial sector (in the Ministry of Labour and Employment and in Technical Education). Provisions of teacher-training has already been made separately. For the residual courses, it is proposed to make a provision of Rs. 20 crores.

The total cost of the programme is thus estimated at Rs. 100 crores.

60. In view of the importance of the programme and the need to develop it simultaneously in all States and Union Territories, it is for consideration whether the programme should not be included in the centrally-sponsored sector.

VIII

ADOPTION OF A UNIFORM PATTERN OF SCHOOL AND COLLEGE
CLASSES (10+2+3)

61. The problem of the pattern of school and college classes does not specifically fall in any one stage of education. In fact, it is a reform which covers all stages of educational and especially the secondary and higher. It would, therefore, be convenient to deal with it separately and as a programme by itself.

62. The Education Commission recommended that a uniform pattern for school and college classes, namely, 10+2+3, should be adopted. This is a major recommendation which has also been accepted as a part of the National Policy on Education. The pattern has already been adopted in the States of Kerala, Andhra Pradesh and Mysore. A definite attempt should be made to introduce it in all States and Union Territories before the end of the Fifth Plan.

Main implications

63. The following are the main implications of this proposal:

- (1) *Addition of one year at the under-graduate stage:* In Uttar Pradesh, the existing pattern is 10+2+2. Here, one year will have to be added at the under-graduate stage.
- (2) *Addition of one year at the higher secondary stage:* In Madhya Pradesh and Delhi Union Territory, the existing pattern is 11+3, all secondary schools being of the higher secondary pattern. Here, an examination will have to be introduced at the end of class X and one year will have to be added at the higher secondary stage to adopt the new pattern of 10+2+3. Similarly, in the States of Haryana, Himachal Pradesh, Jammu and Kashmir, Maharashtra (Marathwada and Vidarbha region), Manipur, Rajasthan, Punjab, Tripura, West Bengal and the Union Territories of A & N Islands and Chandigarh, the present pattern is 10+1+3. Here also, one year will have to be added at the higher secondary stage.

- (3) *No addition of a year but structural changes needed* : In the States of Bihar, Gujarat, Maharashtra (Western Maharashtra region only), Orissa, Tamil Nadu and in the Union Territory of Pondicherry, the existing pattern is broadly 11+1+3 (in the city of Bombay it is 11+2+2). Here, no additional year would be required but some structural changes will be needed to adopt the new pattern.
- (4) *Reduction of one year* : In the States of Assam, Meghalaya, Mizoram and Nagaland and in the Union Territory of Arunachal, the existing pattern is of 16 years. Here, there will be a reduction of one year while adopting the new pattern and also some structural changes will be needed.
- (5) The States of Andhra Pradesh, Kerala and Mysore have already adopted the new pattern, but will need assistance for programmes of qualitative improvement and vocationalisation at this stage.

Implementation

64. In adopting the new pattern, the following broad considerations may be kept in view :

- (1) The first degree course should invariably be of three years.
- (2) The total period of school stage should be not less than 12 years. The best form in which it could be organised is 102; but some latitude may be permitted in the initial stages, and the States may be allowed to have, if they so desire, a pattern of 11+1. Even if some States, like Assam, desire to retain the existing period of 13 years for their school stage, they may be allowed to do so.
- (3) Where the pattern of 10+2+3 is adopted, the two-year higher secondary stage may be located in schools or in colleges or in both.
- (4) There should also be a flexibility about the arrangements to be made for the conduct of the examinations at the end of classes X and XII, although it would be desirable to make the examination at the end of Class X a school examination and to entrust the examination at the end of Class XII to a specially constituted Board.

65. The adoption of this uniform, pattern is necessary for improving standards, for diversification and vocationalisation of the higher secondary stage and from the point of view of national integration. It is, therefore, proposed that this pattern should be adopted uniformly in all States and Union Territories, preferably from 1974-75, the period from now to the end of 1973-74 being utilised for making the necessary preparations.

66. Some States are contemplating changes in the pattern which are not in keeping with this National Policy. They are requested to see that they do not introduce any change except in the direction of adopting this National Policy on the subject.

67. It is also necessary to emphasize that, once the pattern is adopted uniformly, there should be some statutory basis to ensure that, in future, it would not be unilaterally changed by any State.

Costs

68. The costs of the programme will be as follows:

- (1) The enrolments in and the costs of the present PUC-year will have to be dealt with as a part of this programme. In some States, it represents the twelfth year and in some, the eleventh year. Where it represents the twelfth Year, no additional costs are involved as a result of the change of pattern. But some provision will have to be made for the normal increase in enrolments. This has been estimated at Rs. 10 crores.
- (2) Where the present PUC-Year represents the eleventh class, this will also have to be considered here and provision will have to be made for (a) normal increase in its enrolments, (b) for addition of twelfth Year. This has been estimated at Rs. 40 crores.
- (3) In U.P. a Year will have to be added at the under-graduate stage. Although this cost does not fall at the higher secondary stage, it has been included here as a part of the adoption of the new pattern. This has been estimated at Rs. 20 crores.
- (4) Structural changes will also have to be carried out in most States as a result of the adoption of the new pattern. These will include the creation of an appropriate machinery, the transfer of a class from a second-

ary school to a college or *vice versa*, and the strengthening of selected high schools and colleges. The cost of this part of the programme has been estimated at Rs. 20 crores.

- (5) Additional cost will also be required for improvement programmes in these States where the pattern has already been adopted. This has been estimated at Rs. 10 crores.

The total cost of the programme is, therefore, estimated at Rs. 100 crores.

69. It is also for consideration whether, in view of the significance of the programme and the need to implement it simultaneously in all States and Union Territories, it would not be worthwhile to include it in the Centrally Sponsored Sector.

IX

HIGHER EDUCATION

70. The most important question to be tackled at this stage is the manner in which claims of expansion and qualitative improvement are to be reconciled.

Guidelines in Relation to Expansion

71. The following broad guidelines may be adopted in relation to expansion:

- (1) The adoption of the new pattern of 10+2+3 and the institution of a fairly rigorous and broadly uniform test at the end of Class XII will indirectly curb indiscriminate expansion and help to raise standards in higher education.
- (2) The vocationalization of the secondary stage will also help to reduce pressures on university admissions.
- (3) It is necessary to tighten the process of establishing new colleges. This will involve several measures such as : (a) initiative in establishing new colleges should be taken by Government and not left mostly to private enterprise as at present; (b) no private college should be permitted to come into existence unless the management is prepared to meet 25 per cent of the cost ;

- (c) rigorous conditions should be laid down for affiliation and strictly enforced: and (d) the location of new colleges should be carefully planned so that they become large, viable, economic and efficient units.
- (4) The different districts of the country should be surveyed. In districts where the existing facilities are adequate, further expansion should be slowed down or stopped. But expansion will have to be accelerated in areas where the present position of higher education leaves much to be desired.
 - (5) Special measures will have to be adopted to increase the access of under-privileged groups to higher education.
 - (6) The proposal made in (3) above will curtail the facilities for full-time higher education in colleges. But this does not necessarily mean that the expansion of higher education need be adversely affected. The restriction on facilities in full-time institutions should be compensated for by a very large expansion of facilities for part-time education, correspondence courses or self-study. Similarly, it should be possible to appear at all university examinations as private candidates. The open university should be established.

Expansion

72. Leaving out the PUC class, which is at present included in the higher education and which, in the new system, will be treated as equivalent to the higher secondary stage, it appears that the enrolments at the university stage, at the end of the Fourth Plan (1973-74) would be 24 lakhs, of which 22 lakhs would be at the under-graduate stage and 2 lakhs at the post-graduate stage. On the basis of the present trends, it has been estimated that these enrolments would rise to 47 lakhs—43.5 lakhs at the under-graduate stage and 3.5 lakhs at the post-graduate stage. It must be noted, however, that even now there are some indications that the rate of expansion in higher education is slowing down. Moreover, the reforms discussed in the earlier paragraph will also have their own effect. All things considered, it appears that the enrolments in higher education may reach 40 lakhs at the end of the Fifth Plan (1978-79). If special efforts are made to expand post-graduate education this is absolutely necessary—these enrolments may be divided as 35 lakhs at the under-graduate stage and 5 lakhs at the post-

graduate stage. The total additional enrolments in higher education, during the Fifth Year Plan period, would thus be 16 lakhs. This has been shown in the following table:

Year	Enrolments (in lakhs)		Total
	Under-Graduate	Post-Graduate	
1973-74	22.00	2.00	24.00
1974-75	24.60	2.60	27.20
1975-76	27.20	3.20	30.40
1976-77	29.80	3.80	33.60
1977-78	32.40	4.40	36.80
1978-79	35.00	5.00	40.00

73. The comparative increase in enrolments at the post-graduate stage has been shown in the above statistics. What they do not reflect, but what is equally necessary, is a greater emphasis on courses in science and professional courses, enrolments in which will have to be increased *vis-a-vis* courses in humanities and social sciences.

74. If all this additional enrolment of 16 lakhs is to be provided seats on a full-time institutional basis, the expenditure required at Rs. 2500 per student (Rs. 700 non-recurring and Rs. 600 recurring) would be of the order of Rs. 400 crores. This is almost all the allocation that higher education is likely to have. It is, therefore, necessary to consider ways and means of reducing the expenditure on mere expansion. One effective way would be to divert a large number of students in correspondence courses, etc. At the end of the Fifth Plan, we might expect about a third of the students enrolled in higher education to be in correspondence courses and in programmes of private study. If this were possible, the expenditure required for expansion of higher education could be reduced to Rs. 100 crores. The expenditure on correspondence courses has not been included in these estimates because, as the experience of the Delhi University shows, these can be self-supporting.

75. **Programmes of Qualitative Improvement** : The following are among the major programmes of qualitative improve-

ment that will have to be developed in higher education during the Fifth Five Year Plan:

- (1) *University Development*: Post-graduate education should be developed mainly in the universities and in university centres. From this point of view a programme of strengthening university departments should be taken up. Some new universities will also have to be established (it is estimated that about 15 new universities may have to be established in the Fifth Plan). A greater emphasis should, however, be placed on the establishment of university centres and a programme should be drawn up for establishing them in localities where multiple colleges of a given standard exist. A fair target may be the establishment of 50 university centres during the Plan period. For these programmes, a total provision of Rs. 100 crores has been made.
- (2) *Centres of Advanced Study*: The programme of Centres of Advanced Study will have to be suitably expanded, the target being to have a hundred Centres of Advanced Study. Assistance to each Centre will also have to be increased. A provision of Rs. 20 crores is proposed for the programme.
- (3) *Research* : More vigorous steps are needed for promotion of research. A provision of Rs. 30 crores is recommended for the purpose. This will include a provision of Rs. 10 crores for the ICSSR and Rs. 2.5 crores for the ICHR. This allocation is exclusive of the funds that will flow from the Department of Science and Technology into the university system. It is assumed that the minimum allocation available for this purpose would be Rs. 15 crores per year.
- (4) *Student amenities*: Intensive efforts are needed to improve student amenities. A special programme would be to build up adequate textbook libraries in all colleges and universities. A second programme would be to establish academic centres where facilities for study through the provision of books, tapes, films, radio, tutorial instruction, short-term courses, etc. would be available. These would be open to students under full-time instruction as well as to those who are studying under programmes of part-time education correspondence courses or self-study. Hostel facilities will

also have to be increased. Their management will have to be improved and the costs reduced. A provision of 50 crores has been proposed for these and other programmes of student amenities.

(5) *Improvement of Colleges* : Vigorous steps will have to be taken to improve colleges. The following programmes would be relevant in this context :

- (a) As stated earlier, over-dependence on private enterprise, which has characterised our policy in the past should be given up and the initiative in establishing new colleges should be taken, where necessary, by the universities. No new private college should be allowed to be started unless it fulfils all the conditions of affiliation (which, as stated above, should be made more rigorous) and unless it can bear a prescribed percentage of the recurring cost of the college.
- (b) The programme of autonomous colleges should be implemented vigorously and an attempt made to set up a fairly large number of autonomous colleges in all parts of the country. By the end of the Fifth Five Year Plan, at least 5% of the colleges should be made autonomous.
- (c) About 10% of the colleges should be selected for intensive development and given a grant-in-aid of Rs. 10 lakhs for the Plan period. For the 400 colleges, this programme will cost Rs. 40 crores. The autonomous colleges would necessarily be covered in this programme.
- (d) Assistance should be given to every viable college to improve its programmes and facilities, especially for students. A viable college should be defined as one which has certain minimum enrolments, has fulfilled the minimum conditions that may be prescribed in this regard and attained a certain standard. A grant-in-aid of Rs. 1 to 3 lakhs should be given to every viable college during the Plan period according to merits. Assuming that about 1,000 colleges will qualify for this and that the average grant will be Rs. 2 lakhs for the Plan period the total cost of this programme would be Rs. 20 crores.

The total expenditure on improvement of colleges would thus be Rs. 60 crores.

- (6) *Summer Institutes* : A programme of Summer Institutes for university and college teachers should be developed on a large scale. The target may be to organize 4,000 summer schools in the plan period. As Rs. 50,000 per summer school, the cost of the programme would be Rs. 20 crores.
- (7) *Science Service Centres* : It is proposed to establish four Science Service Centres where the most upto date facilities for research (including highly sophisticated and costly equipment) will be available and where teachers would be encouraged and assisted to undertake high level research. A provision of Rs. 10 crores is proposed for this programme.
- (8) *National Library Centres* : Similarly it is proposed to establish four large National Library Centres where the best facilities for research would be made available and which the teachers would be encouraged and assisted to utilise in their studies. A provision of Rs. 10 crores has been proposed for this programme.

Total Costs

76. The total cost of programmes of higher education proposed in this Section would be Rs. 45 crores as indicated below :

	<i>Rs. in crores</i>
1. Programmes of Expansion	100
2. University Development	100
3. Centres of Advanced Study	20
4. Research	30
5. Student amenities (including textbooks libraries, academic centres and hostel facilities)	50
6. Improvement of Colleges	60
7. Summer Institutes	20
8. Science Service Centres	10
9. National Library Centres	10
TOTAL	400

NATIONAL SCHOLARSHIPS POLICY

77. It is necessary to define a National Scholarships Policy and to implement it in the Fifth Five-Year Plan.

78. The proposed National Scholarships Policy can be conveniently discussed under two heads:

- (a) Scholarships given on merit for talented students from the society as a whole;
- (b) scholarships given on merit, but within the most under privileged groups in society.

I. Scholarships on Merit

79. These fall into several categories:

- (a) *Overseas Scholarships* : Until last year, the Government of India did not have any programme of overseas scholarships for talent students except those which were offered by friendly countries. Now our own programme of Overseas Scholarships has been introduced, although on a very limited scale. In this category, two changes are called for. The first is to ensure that overseas scholarships which are offered by friendly countries are utilised to train essential manpower for development for whose training adequate facilities are not available in the country itself. The second is to expand the national programme of overseas scholarships and to utilise it to the full in the most significant gaps in our present training programmes. Detailed schemes on these lines will have to be worked out and included in the Fifth Plan.
- (b) *National Scholarships* : The second category is that of National Scholarships. At present, the number of awards made in this category is 10,000 a year. The number of scholarships needs considerable increase and provision for this will have to be made in the Fifth Plan.
- (c) *Loan Scholarships* : Then comes the category of Loan Scholarships. At present the number of awards made is 20,000 per year. Here also, two main changes are required. The first is the streamlining of administration to ensure that the scholarships provided are properly

utilised and paid in time to the students. The second is to ensure that the amount of scholarships is duly recovered so that a rolling fund is set up.

- (d) At the secondary stage, the responsibility for providing the necessary scholarships is left to the State Governments. But, by and large, the States scholarships programmes are limited in size and inadequate. They will have to be expanded considerably in the Fifth Plan.
- (e) During the Fourth Plan, the Government of India has introduced a scheme of Merit Scholarships under which two scholarships at the secondary stage are given per development block. Some State Governments have provided matching funds to increase the number of awards. This is a very promising programme which will have to be further expanded in the Fifth Plan.
- (f) There was a limited programme of Merit Scholarships in residential schools (including public schools). This has now been expanded to cover 25 per cent of the enrolment in these institutions. The proper development of this scheme will be an important programme for the Fifth Plan.
- (g) There is at present a limited programme of scholarships for children of primary and secondary teachers. This needs considerable expansion in the Fifth Plan.

In the case of all these scholarships, adequate steps will have to be taken to ensure, not only that the scholarship holders get admissions to good institutions. A placement and more intensive follow-up programme is called for.

80. The possibility of streamlining the administration of scholarships through the establishment of special autonomous Boards, both at the Centre and in the States, will also have to be explored.

II. Scholarships for Scheduled Castes and Scheduled Tribes

81. The second important category of scholarships is that meant for the under-privileged groups of society. The most important scholarships in this sector are those for Scheduled Castes and Scheduled Tribes.

82. At the secondary stage, these are provided by the State Governments in their own plans. In some States, the provision

is fairly liberal and generally adequate, while in others, it is very meagre. Steps will, therefore, have to be taken to see that scholarships at the secondary stage for the Scheduled Castes and Scheduled Tribes are adequately provided for in all areas in the Fifth Plan.

83. At the university stage, these scholarships are provided entirely by the Centre. About 2,00,000 scholarships are being awarded at present (1,70,000 for Scheduled Castes and 30,000 for Scheduled Tribes). The main changes required in the system are:

- (1) The scholarships are largely being utilised by certain sub-castes amongst the Scheduled Castes and by some tribes, while there are several Scheduled Castes and a large number of tribes which have received little benefit from this programme during the last 25 years. An effort will have to be made to identify these more neglected groups even among those under-privileged sections and to see that they receive the benefit of these scholarships to a much larger extent than in the past.
- (2) It is necessary to identify talented students from among the Scheduled Castes and Scheduled Tribes and develop for them a special programme of scholarships on a larger value (which would cover all costs), placement and personal attention.

The funds needed for this programme are provided in the Social Welfare Plan.

III. Scholarships for the most under-privileged groups of society

84. There are several extremely under-privileged groups in society, such as landless agricultural labourers, who deserve a similar programme of scholarships but have no facilities at present (except to a limited extent in some States). It is, therefore, necessary to introduce a programme of scholarships for the most under-privileged sections of the society, other than the Scheduled Castes and Scheduled Tribes. What is even more important is that we must look forward to a time when backwardness could be defined without reference to caste or birth and all deserving backward class students so defined should be eligible for a general scholarships programme from the middle school stage to the university.

85. From both these points of view, it would be desirable to introduce, in the Fifth Five Year Plan, a programme meant for the most under-privileged sections of the community defined on socio-economic considerations unrelated to caste or birth or religion. Some beginning in this direction would have been made in the scheme of the model secondary and primary schools. But this will have to be supplemented by a large programme initiated by the State Governments.

86. If this programme for the most under-privileged sections of the society (other than Scheduled Castes and Scheduled Tribes) operates side by side with that for Scheduled Castes and Scheduled Tribes, it may be possible, at some later stage, to merge both the programmes together and create a common programme of National Scholarships, from the middle school to the university stage, for all under-privileged sections of the society, including the Scheduled Castes and Scheduled Tribes. For some time, a special consideration may have to be shown to Scheduled Castes and Scheduled Tribes even in this programme. But ultimately there would emerge only a common programme for the most under-privileged groups defined on the basis of socio-economic criteria, unrelated to caste, religion or birth.

87. **Costs** : It is proposed to make the following provision for this programme in the Fifth Five Year Plan :

(Rs. in
crores)

(1) Hostels and scholarships in model primary schools	125
(2) Hostels and scholarships in model secondary schools	32
(3) Strengthening the general scholarships programmes at school stage	20
(4) Strengthening the scholarships programme at the university	30
Total	207

XI

ESTABLISHMENT OF NEHRU YOUTH CENTRES AND THE INFORMAL EDUCATION OF THE YOUNG

88. Another very important programme to be included in the Fifth Plan on a priority basis would be the provision of informal education of youth in the age-group 14-25 and the establishment of the Nehru Youth Centres. To begin with,

there would be one Nehru Youth Centre in each district. A hundred such Centres are being established in November 1972; and all districts would be covered by the end of the Fourth Plan. The main programme for the Fifth Plan would be to expand the scheme to cover all areas, both urban and rural.

89. It is envisaged that the Youth Centres will provide services divided into two types. The first is: enterprises and programmes, which the Youth Centres will launch themselves; in other words the Youth Centre will itself take initiative both in planning and implementation of programmes. The second is: assistance and advice extended to resident groups and organisations who, in turn, take responsibility in their activities.

90. Major programmes of the Youth Centres may be holding of youth classes, especially for those youth who do not enter upper secondary schools. Such youth classes may deal with courses on current topics, trade, politics, economics and general science and include discussion on all problems that concern youth as well as various regular and short-term courses, especially designed to develop special skills of young men and women and to involve them in the production process. The Centres may also hold exhibitions and science fairs and organize physical education and recreation, educational film shows, publication of youth bulletins, provision of library facilities through the aid and assistance of the Raja Rammohan Library Foundation (including running of mobile library services in the rural community), and programmes for the promotion of health, sanitation, and adult literacy.

91. It is obvious that it would be in the interest of economy and efficiency to link this programme closely with the educational system. Such linkage will benefit not only the youth programme but the school system also. The following may be suggested from this point of view:

- (1) The universities have an important role to play in this programme; they can serve as brain trusts for it and assist in planning and servicing. They could also help in the training of key personnel.
- (2) The colleges also can play a useful role by linking their national service activities with the development of programmes of informal education among the non-student youth.

- (3) The Nehru Yuvak Kendra in the district will work in close collaboration with the model secondary school in the district. Later on, it will establish branches which will work closely with the model primary schools in each community development block.
- (4) At a subsequent stage, the programme will have to be spread to all educational institutions which, apart from providing full-time education for some students, will also undertake programmes of part-time and informal education for non-student youth. This would help them to develop their programmes of work-experience and social service more effectively.

92. One of the major objectives of this programme would be to liquidate illiteracy among the youth (age group 15-25). The programme can be best organised by training youth leaders and using them to make their peers literate and also to give them general education in citizenship.

93. A provision of Rs. 50 crores is proposed for this programme.

XII

ADULT LITERACY

94. A major impact on the problem of illiteracy will be made by some of the programmes discussed earlier, viz., (1) effective provision of universal primary education for all children in the age-group 6-14, (2) provision of part-time education immediately to all children in this age-group who cannot attend school on a whole-time basis and (3) the development of a youth movement in the age-group 15-25.

95. In addition, programmes of adult literacy will also have to be developed. The objectives of this programme should be to ensure that any group of adult illiterates who desire to learn, is provided with opportunities to do so. These programmes may be organised most effectively in connection with such developmental programmes as agricultural improvement, employment schemes in the rural and urban sectors, etc. A provision of Rs. 10 crores is proposed for this scheme.

96. It is also for consideration whether it should not be made obligatory on *every* graduate (or even a matriculate) to make a certain number of persons literate before he gets a degree (or is allowed to get his examination certificate). This would give a great fillip to the programme.

XIII

OTHER PROGRAMMES

97. **Language Development** : A major programme of language development including preparation of books in Indian languages for use at the university stage has been initiated in the Fourth Five-Year Plan. This will have to be continued and developed further in the Fifth Plan. A provision of Rs. 50 crores is proposed for this scheme.

98. **Games and Sports** : For programmes of games and sports, a provision of Rs. 10 crores has been proposed.

99. **Cultural Programmes** : For the development of Cultural programmes in education, a lump sum provision of Rs. 20 crores has been proposed.

100. **Text Book Presses** : It is proposed to establish text-book printing presses so that every State has at least one special press for the programme. A sum of Rs. 20 crores is provided for this programme.

XIV

STRENGTHENING OF ADMINISTRATION

101. The administrative machinery in education is far from satisfactory. It has not been adequately strengthened during the last 25 years even to meet the tremendous expansion that has taken place. What is more important, it is not at all in a position to plan and implement the large scale programme of expansion and qualitative improvement which is visualised in the Fifth Five-Year Plan. Steps will, therefore, have to be taken to strengthen the administrative machinery suitably, both at the Centre and in the States.

102. In the States, the main points of emphasis would be to strengthen the machinery at the district level and to provide for adequate delegation of authority. All academic programmes and the State Institutes of Education will have to be strengthened. There should also be an emphasis, not so much on increasing the number of officers, as on providing better officers and to give them the necessary professional training.

103. At the Centre, the Ministry of Education would have to be suitably strengthened to pursue the implementation of the new educational programmes. The National Staff College for Educational Planners and Administrators will have to be developed and assisted to work closely with the State Education Departments. The role of the NCERT will have to be similarly strengthened.

104. A very important measure is, as stated earlier, the improvement of training of teachers. For this, State Boards of Teacher Education will have to be established in all States and a National Council of Teacher Education at the Centre.

105. A provision of Rs. 33 crores has been proposed for this sector.

XV

FINANCIAL IMPLICATIONS

106. The detailed financial implications of each of the programmes suggested in this paper are being worked out. From the tentative estimates made so far, it appears that they will need a minimum investment of about Rs. 3,200 crores, as shown below :—

(Rs. in crores)

1. <i>Pre-School Development</i>	
(Total cost estimated Rs. 100 crores. Of this, Rs. 75 crores will be in the Social Welfare Department.)	25
2. <i>Primary & Middle School Education</i>	1575
<i>Expansion</i>	
Salaries and allowances of teachers and contingent expenditure	825
Buildings	100

(Rs. in crores)

Equipment (excluding that for science and work experience)	20
Mid-day Meals	120
Free Supply of textbooks and stationery	88
Grant of clothing and attendance allowances, etc.	37
	<hr/>
	1190

Less savings on account of the National Volunteer Service	200
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(This excludes Rs. 60 crores provided in the Social welfare Plan)	<hr/>
	990

Improvement

Work experience	170
Science education	29
In-service education of teachers	66
Establishment of new training institutions	11
Strengthening of existing teacher-training institutions	20
Model Primary Schools	175
Improvement of selected schools	60
General improvement of schools	54
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	585

3. *Secondary Education*

Expansion of facilities	200	400
Model comprehensive Secondary Schools in each district	64	
Improvement of selected 10% schools	20	
Improvement of other schools	22	
Provision of textbook libraries	15	
Science Education	30	
Training of Teachers	28	
Other programmes	21	
	<hr/>	
	400	

(Rs. in crores)

4. Vocationalisation of Secondary Education (exclusive of provision in other Ministries)	100
5. Adoption of Uniform pattern of 10+2+3	100
6. <i>Higher Education</i>	400
Programme of expansion	100
University Development	100
Centres of Advanced Study	20
Research	30
Student Amenities (including textbook libraries, academic centres and hostel facilities)	50
Improvement of Colleges	60
Summer Institutes	20
Science Service Centres	10
National Library Centres	10
	400
7. Technical Education	200
8. <i>Other Programmes</i>	400
Scholarships (exclusive of the provision in the Deptt. of Social Welfare)	207
Youth Services	50
Adult Literacy	10
Language Development	50
Games & Sports	10
Cultural Programmes	20
Text-Book Presses	20
Administration	33
	400
GRAND TOTAL	3,200

107. If this total allocation of Rs. 3,200 crores is made available in the Fifth Five Year Plan, the annual expenditure on education will increase from Rs. 1,250 crores (or 3.2% of the national income) to Rs. 2,250 crores (or 4.5% of the national income). If, to this is added the expenditure on educational programmes incurred by other Ministries, the total educational expenditure may come up to about 4.7% of the national income.

This will have to be in keeping with the decision to increase educational expenditure, the 6% of the national income by 1985-86.

108. A comparison of the proposed pattern of investment in the Fifth Plan has been compared with that in earlier years in the following table:—

Outlay/Expenditure on Education—Distribution between various sub-heads.

(Rs. in crores)

Sub-head	First Plan	Second Plan	Third Plan	Inter-regnum (1966—69)	Fourth Plan (1969—74)	Fifth Plan (1974—79)
1	2	3	4	5	6	7
Elementary Education (including Pre-School education)	85 (56)	95 (35)	178 (30)	65.3 (20)	234.74 (28.5)	1600 (50.0)
Secondary Education	20 (13)	51 (19)	103 (18)	52.6 (16)	118.32 (14.4)	600* (18.9)
University Education	14 (9)	48 (18)	87 (15)	77.0 (24)	183.52 (22.3)	400 (12.46)
Teacher Education	@	@	23 (4)	9.4 (3)	21.17 (2.6)	**
Social Education (including Youth Services)	5 (3)	4 (1)	2 (0)	2.1 (1)	8.30 (1.0)	60 (1.9)
Cultural Programmes	\$	3 (1)	7 (1)	3.7 (1)	12.49 (1.5)	...
Miscellaneous Schemes	9 (6)	23 (8)	64 (11)	30.7 (9)	11.875 (14.5)	340 (10.3)
Total—General Education	133 (87)	224 (82)	484 (79)	240.8 (75)	697.29 (84.8)	3000 (93.7)
Technical Education	20 (13)	49 (18)	125 (21)	80.7 (25)	125.37 (15.2)	200 (6.3)
Total—Education	153 (100)	273 (100)	589 (100)	321.5 (100)	822.66 (100)	3200 (100)

Source : (1) Selected Educational and Related Statistics at a Glance, New Delhi, Education Division, Planning Commission, June, 1969, p. 99 (cyc).

(2) Fourth Five-Year Plan, New Delhi, Planning Commission, 1970, p. 366.

Figures given in parenthesis indicate percentages (rounded) to total.

@Included under Elementary/Secondary Education.

\$Included under Miscellaneous Schemes.

*Includes cost on vocationalization and adoption of uniform pattern.

**A provision of Rs. 145 crores (4.6 p.c.) has been made at different stages.

109. The following main points emerge from this comparison:

- (1) The programme of primary and middle school education gets top priority in the Fifth Plan. In the past, it generally got squeezed out by the pressures of expansion in secondary and higher education.
- (2) Qualitative programmes are emphasized at all stages. Expansion has, of course, to be given a higher priority at the primary and middle school stage. But even here, the programmes of qualitative improvement are substantial. At the secondary stage, about half the funds available are invested in raising standards and at the university stage, this proportion rises to three-fourths. This emphasis on quality is long overdue.
- (3) In enrolments, the main problems at the primary and middle stages are two : (a) how to enrol girls and children from weaker sections and (b) how to reduce wastage. At the secondary and university stages the main issue is: How to control indiscriminate expansion that takes place due to over-dependence on private enterprise, lowering of standards at the institutional level, lack of planning in the location of institutions, and creation of small institutions which tend to be uneconomic and inefficient.
- (4) There is a far greater emphasis in these proposals on informal education at all stages. The programmes of part-time education are being proposed for adoption in a big way in the age-group 11—14. Similar emphasis is laid on informal education at the secondary stage and still more so at the university stage. The large-scale use of mass media is another special feature.
- (5) Other special features are : the programme of youth services with emphasis on liquidation of illiteracy in the age-group 15—25; introduction of literacy programmes in these of agricultural improvement or employment; national service; and establishment of model primary and secondary schools.

XVI

ADVANCE ACTION

110. It is obvious that if this programme of educational development is to be implemented in the Fifth Five Year Plan, we cannot afford to lose this year and the next. An intensive programme of advance action will, therefore, have to be prepared and implemented in these two years. This will include, amongst others, the following :—

- (1) inclusion of the approach to the development of education in the Fifth Five Year Plan.
- (2) Formulation of detailed educational plans by each State Government with all their financial implications. These plans should take a comprehensive view and look at both Plan and non-Plan expenditure and all educational programmes in an integrated perspective.
- (3) Strengthening of the administrative machinery so that, when the Fifth Five Year Plan begins, the administrative arrangements needed to implement it efficiently would already have been placed on the ground.
- (4) Completion of all the intensive academic work needed for transformation of the educational system. For instance, this would include the preparation of model curricula by the NCERT and the reformulation of their own curricula, on these broad lines, by each State Government, initiation of steps needed to improve textbooks, etc.
- (5) Establishing the model secondary and primary schools.
- (6) Accelerating programmes of pre-school development and primary education so that the targets indicated earlier are definitely reached by 1975-76 and 1980-81.
- (7) Initiating action for adoption of the uniform pattern of school and college classes.
- (8) Initiating the studies and detailed academic work needed for vocationalisation of higher secondary education.

- (9) Creating a framework for launching the youth movement in the age-group 15—25.
- (10) Initiating advance action for the large scale programme of improvement of higher education visualised in the Fifth Five Year Plan.
- (11) Development of the National Staff College for Educational Planners and Administrators.
- (12) Establishment of State Boards of Teacher Education and National Council for Teacher Education.

It is estimated that an allocation of Rs. 30 crores would be needed for this advance action in 1972-73 and Rs. 100 crores in 1973-74.

Development of Education in India

		1950-51	1955-56	1960-61	1965-66	1968-69*	1973-74 (Estimated)	1978-79 (Target)
		1	2	3	4	5	6	7
		8						
I. Enrolment in classes I—V (Age-group 6—11) (in millions)	Boys	13.8 (60.8)	17.5 (72.0)	23.6 (82.6)	32.2 (96.3)	34.0 (92.7)	41.3 (99.6)	45.5 (109.2)
	Girls	5.4 (24.9)	7.6 (32.8)	11.4 (41.4)	18.3 (56.5)	19.9 (56.6)	27.3 (70.1)	42.5 (109.2)
	Total	19.2 (43.1)	25.1 (52.8)	35.0 (62.4)	50.5 (76.7)	53.9 (75.1)	68.6 (85.3)	88.0 (109.2)
II. Enrolment in classes VI—VIII (Age-group 11—14) (in millions)	Boys	2.6 (20.8)	3.4 (25.4)	5.1 (32.2)	7.7 (44.2)	8.7 (45.6)	12.2 (54.3)	18.2 (75.8)
	Girls	0.5 (4.3)	0.9 (6.9)	1.6 (11.3)	2.8 (17.0)	3.4 (18.3)	5.9 (27.7)	17.0 (76.2)
	Total	3.1 (12.8)	4.3 (16.5)	6.7 (22.5)	10.5 (30.8)	12.1 (32.1)	18.1 (41.3)	35.1 (76.0)
III. Enrolment in classes IX—XI (Age-group 14—17) (in millions)	Boys	1.09 (9.3)	1.65 (13.4)	2.47 (17.5)	4.07 (25.5)	4.89 (28.3)	7.09 (36.6)	9.13 (41.1)
	Girls	0.16 (1.5)	0.33 (2.9)	0.56 (4.3)	1.20 (10.4)	1.58 (9.5)	2.61 (14.1)	4.57 (22.0)
	Total	1.25 (5.5)	1.98 (8.3)	3.03 (11.1)	5.27 (16.9)	6.47 (19.1)	9.70 (25.6)	13.70 (31.9)

lions)	Girls	0.16 (1.5)	0.33 (2.9)	0.56 (4.3)	1.20 (10.4)	1.58 (9.5)	2.61 (14.1)	4.57 (22.0)
	Total	1.25 (5.5)	1.98 (8.3)	3.03 (11.1)	5.27 (16.9)	6.47 (19.1)	9.70 (25.6)	13.70 (31.9)

IV. Enrolment at the University stage (Age-group 17-23) (in thousands)	Total	134 (0.4)	228 (0.6)	627 (1.2)	1,214 (2.3)	1,801 (3.0)	3,200 (4.5)	5,200* (7.0)
V. Total educational expenditure (Rs. in millions)		1,144	1,897	3,444	6,220	8,500	12,500	22,500
Percentage of National income at current prices		(1.2)	(1.9)	(2.4)	(2.8)	(2.8)	(3.3)	(4.5)

*Includes enrolments in PUC. Excluding these, the enrolments at the university stage would be 24 lakhs in 1973-74 and 40 lakhs in 1978-79.

