

**SOME PAPERS ON
A NATIONAL SYSTEM OF
EDUCATION FOR INDIA**

BY

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A NATIONAL SYSTEM OF EDUCATION FOR INDIA

I

A STUDY OF EDUCATIONAL GOALS

1. Earlier Studies on the Subject: The subject of educational goals in independent India was first discussed by the University Education Commission (chapter II of its Report). This discussion has, however, some limitations. The first is that, at the time when this study was made, even the Constitution of India had not been fully adopted. The main basis for the discussion, therefore, was the Preamble to the draft Constitution which showed that the nation was engaged "in a quest for democracy through a realisation of justice, liberty, equality and fraternity." The national goals assumed in the discussion, therefore, are only democracy, justice, liberty and fraternity - national and international. The Commission could not have foreseen other educational goals, such as socialism or national integration, which have since come to the fore. Secondly, the Commission was also unaware of the technique of planned development which has since become an integral part of our national life. Thirdly, the Commission was discussing the problem, not with reference to education as a whole, but mainly with reference to university education. It, therefore, follows that while this Commission will have to incorporate all the thinking contained in chapter II of the Report of the University Education Commission within its own Report, it will also have to take the thinking on the subject a step further in order to bring it up-to-date and also to relate it to education as a whole.
2. The next document in which this problem has been discussed is the Report of the Committee on Emotional

Integration (1962). In Chapter III of its Report, the Committee discusses the problem of the philosophy of education and points out that, except for the worthwhile reference made to it by the University Education Commission, the subject has been generally neglected. Unfortunately, the Committee does not give us detailed study of the problem and merely raises some of the important issues involved. These include:-

- (1) Development of the individual;
- (2) Relationship between the individual and society;
- (3) Development of character;
- (4) Secularism and its implications for education;
- (5) Problems of modernisation of a traditional social order; and
- (6) Problems of national integration.

The Committee finally observed: "It is not our intention to lay down a cut-and-dried philosophical formula. Our purpose rather is to draw the attention of all concerned towards the importance of the subject in the hope that experts in the field would, spontaneously or at the request of Government, pay, at an early date, the attention to the subject which it intrinsically deserves".

3. It will thus be seen that this is a subject which still has to be studied in all its implications and that it will have to be highlighted in the report of the Commission. It is to assist in this effort that this paper has been prepared.

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however, that such an attempt is not always made. In England, for instance, there has hardly ever been any discussion of national goals and education has almost always been defined with reference to the individual - his aptitudes, interests and potential for growth. The same might be said of U.S.A. In fact, the democratic tradition in education is to emphasize the worthwhileness of each individual and to under-accentuate the definition of social or national goals. The modern trend towards internationalism or humanism, which believes that the development of sovereign and over-conscious nationalist States can only lead to wars and destruction of humanity, also discourages the definition of national goals, an exercise which often tends to encourage militant nationalism. It must also be remembered that the definition of national goals and the organisation of educational system to achieve them was first attempted by the Soviet Union and Nazi Germany in the wake of their characteristic philosophy of subordinating the individual to the society or the nation. Before one proceeds to define the national goals for India and base the concept of a national system of education on them, therefore, the very desirability of the exercise has to be first established.

4. The main justification for orientating a national system of education to the definition and realisation of national goals arises from the adoption of the techniques of planned development. The first requisite of planned development of a society or a nation is to state what it desires to be, its philosophy of life, and the ends and means of its development; or in other words, its social or national goals. Since India has taken the decision to plan its future, a definition of national goals is inescapable and only that system of education which will

enable it to reach these goals in the shortest of time and at a minimum of cost can be labelled as its national system of education. It is also very easy to point out that the definition of such national goals need not necessarily encourage militant nationalism, especially because non-alignment, co-existence, international understanding and tireless pursuit of peace can themselves be accepted as significant national goals. Similarly, there need be no inherent contradiction in the definition of national goals and the freedom of the individual, especially if one accepts democracy, which reconciles the social and individual interests in the best possible manner. In fact, even the older democracies have now begun to think in terms of national goals, although the movement has not made any considerable impact on popular thinking. For instance, since the loss of its pre-eminent status in the comity of nations as a result of the second World War a group of thinkers in England have seriously begun to consider the definition of national goals and of devising educational policies suited for their realisation. An interesting study in this field is the Social Purposes of Education by K.G. Collier which suggests educational policies on the assumption that England is now faced with a very severe challenge, in the shape of various economic, social and moral changes, and (that) its future depends on the response (it makes) to this challenge*. Similarly, the confrontation with the recent successes of the Soviet Union, due obviously to its educational system, has also induced several Americans to think of national goals.** These attempts, it may be admitted, are not very successful nor have they become very popular. But they are evidence enough to show that the old stigma no longer attaches to the

* Ibid, p.3

** Purposes of Education: An Instrument of National Goals by Paul Haggis, McGraw-Hill Book Co. Inc., New York, 1962. The book is a study of the subject by various authorities. It has many good points; but as Cowley remarks, the majority of people have written on the subject on black paper with ink manufactured from a compound of tears, vodka and

definition of national goals even in the oldest and staunchest of democracies. Besides, as has been pointed out above, such definition is inescapable for developing countries who can only advance through the adoption of techniques of planned development.

5. The alternative approach of defining a national system of education as one which helps a country to provide the best response to the challenges facing it, hardly needs an apology for its statement. The idea of challenge and response is a very familiar phenomenon of life and operates at various levels. There are hundreds of instances of individuals who, when faced with apparently insurmountable difficulties, made such an outstanding response as to overcome them successfully and rise to unimaginable heights. President Roosevelt, for instance, was crippled by polio but still managed to be the President of U.S.A. Beethoven created some of the greatest music of the world in spite of his deafness. On the other hand, there are millions of individuals who fail to make such a response when threatened by difficulties and consequently go under. The concept has now been elevated and applied to social groups and even nations by Toynbee who points out that social classes or nations survive, or go under, as they make, or fail to make, an adequate response to the challenges facing them. The ruling classes in France in 1789 failed to recognise the right of the poorer classes to a better standard of living and of the middle classes to a greater share in the government of the country. They neither understood the gravity of the situation, nor had the courage to give way gracefully so that they were practically wiped out. As a contrast to this failure one may cite the example of the Indian community between 1850 and 1850. It had been first shocked by the political conquest of an alien power and was then called upon to face the more despicable attitude of the conquerors to impose intellectual suzerainty on it.

through a system of education which tried to cut it off from its national moorings. The reaction was violent, widespread and powerful. A number of national leaders were born who made the people have greater faith and pride in its ancient cultural heritage and, on this basis, organised social and political movements which ultimately won freedom. Toynbee's masterly theory of challenge and response in the life of the nations is thus profoundly true. At several moments in their life, nations are threatened by peculiar and extraordinary challenges; and they survive or go under depending upon the effectiveness of the response they can make to the challenge.

6. It is obvious that India is now facing the worst ever challenge in its long recorded history of more than six thousand years. The appalling poverty of the masses, which has dogged the foot-steps of the country for more than a hundred years, is now immensely accentuated by the population explosion. Educationally, the country has a small class of indifferently educated persons while the masses are still illiterate and ignorant. The prevailing technology is largely primitive and we still live in, what Pandit Nehru called, the 'cow-dung era'. The very unity of the nation, which was more apparent than real while fighting with an alien power, is now threatened with several fissiparous tendencies. Social cohesion, never very strong, is now probably at its lowest ebb due to an upsurge of parochial or casteist considerations and the still unresolved problems of Hindu-Muslim unity. In the political field, the only organised party which won the freedom is now beset with factions, groupism and internal squabbles of an unprecedented character and there is no other well-organised nation-wide political party to take its place. The great creative impulse which the country revealed in throwing up a galaxy of great men to fight with

British imperialism now appears to be on the wane and we do not seem to have any giants in our midst comparable to those who lived and fought for us between 1860 and 1960. The old faith and values in life are slipping fast under our feet and their place has not yet been taken up by new ones with the result that there is an immense crisis of character which manifests itself in reprehensible and disorderly behaviour among students and in corruption and inefficiency in official and public life. To crown all, there is the recent threat from China, a threat which is not only national but international because the future of democracy in Asia, and ultimately in the world, will largely depend upon its outcome. Not only was the country never faced with such challenges in its earlier history, one may even doubt whether any country, not exclusive of Britain after Dunkirk, was ever faced with challenges of such gravity and magnitude.

7. It is obvious that the response to this challenge will have to be equally great and powerful in order to succeed. The planning of the proper response to this challenge and the training of all the adults and the rising generations to organise it is essentially an educational task; and it is only that system of education which can generate and maintain the proper response to this challenge on an adequate scale till the dangers are past, is worthy of ever being designated as the national system of education in India.

8. One more point. It may incidentally be pointed out that two different approaches, viz., (1) defining national goals and conceptualising the educational system needed to realise them, and (2) organising a proper and adequate response to meet the threatening challenges of the day, are not contradictory to one another. When one considers the goals to be realised, he is more inclined to take a long-term

look at education. On the other hand, it is the short-term objectives that get more emphasized when one is thinking of the proper response to challenge. The two approaches are thus complementary to each other and, for a complete picture of the problem, it is necessary to take both of them together and to integrate the results into a common group of objectives and techniques of national educational development - both long-term and short-term. It is on the basis of this combined approach that the main issues relating to the creation of a national system of education for India will be discussed in the paragraphs that follow.*

II. NATIONAL GOALS AND THEIR EDUCATIONAL IMPLICATIONS

9. Let us begin with a statement of national goals as they have been identified in the post-Independence period. Some of these were formulated at the time of framing the Constitution and have been incorporated into it. The first is democracy. The Constitution declares India to be a sovereign democratic republic which would assure the dignity of the individual and secure, to all its citizens, social, economic and political justice. It adopts adult franchise and direct elections to Central and State Legislatures, guarantees essential fundamental rights, safeguards the interests of minorities and backward communities, ensures equality before law and in regard to education and employment, prohibits discrimination on ground of religion, race, caste, sex, or place of birth and abolishes untouchability. As an inescapable corollary of this basic decision, Art. 45 directs the State to provide, within a period of ten years, free and compulsory education for all children till they reach the age of 14. The second is secularism. The State

*For a historical survey of the Development of the Concept of National Education in India (1906-65), please see appendix I at the end.

has no religion and it also treats all religions alike, in the sense that all persons have an equal right freely to profess, practise and propagate religion, to establish and maintain religious institutions and to manage their own religious affairs. Moreover, no religious instruction can be provided in educational institutions wholly maintained out of State funds while, in private institutions aided from State funds, no religious instruction can be made compulsory for any child against the wishes of his guardian. The third is the decision to elevate an Indian language - Hindi in Devnagari script and international form of numerals - to the status of the official language of the Union.

10. To these three important national goals, four others have been added in the course of the last 18 years and especially since the adoption of the technique of planned development. The first is to eliminate poverty and to raise the standards of living of the people rapidly through the modernization of agriculture and rapid industrialisation. To this end, it has also been decided to adopt science and technology which is also the most important factor in the conversion of a traditional into a modern society. The second is to create a socialistic pattern of society - a goal which is implicit in the Constitution itself. Art. 39 provides that the State shall adopt a policy which will ensure that 'ownership and control of the material resources of the community are so distributed as best to subserve the common good' and that the 'operation of the economic system does not result in concentration of wealth and means of production to the common detriment'. The third is the national integration, the need for which began to be felt keenly as several fissiparous tendencies began to come to the surface, especially after the

reorganisation of States in 1959; and the fourth is the maintenance of the hard-won freedom of the country.

This is especially prominent since the Chinese aggression of 1962, which has shown that Chinese expansionism now poses a very real threat to Indian freedom and to all the Indian values in life. These seven national goals are at the very basis of all developmental plans, including those of education.

11. Such identification of national goals is necessary but not sufficient to build up a philosophy of education. As Brubacher has observed: 'the schools complete and consolidate a change decided elsewhere, whether by bullets or by ballot'. In other words, the identification of national goals merely sets difficult and challenging tasks to the educators and forms the first step in building up of a philosophy of education. The next step is to conceptualise the educational implications of such national goals which may be described as the 'topical' objectives of education (because they relate to a particular country at a particular moment of its history) to distinguish them from the 'absolute' objectives of education such as 'harmonious development of the personality of child', 'the building up of character' or 'preparation for life' which apply to all countries at all times. Unfortunately, we have concentrated far too much on the absolute objectives of education because they can be easily borrowed from standard textbooks written elsewhere. It is, however, obvious that a discussion of the 'absolute' objectives of education must be supplemented by that of the 'topical' ones which are true of a given country at a given time. It is also further obvious that there is no inherent contradiction between the absolute and topical objectives: it is the topical

objectives that really give 'a local habitation and a name' to what often tends to be, in the discussion of the absolute objectives per se, an 'airy nothing'.

12. When we desire to create, not only a philosophy, but also a practical programme of educational reconstruction - and this is precisely what one means by developing a national system of education - we need something more than the conceptualization of the educational implications of national goals. This has to be followed up by the preparation of detailed curricula and programmes of instruction at all stages with a view to the inculcation of the educational objectives in the minds of the rising generation, by the organisation of an institutional set up suited for their realization, by the adequate and intensive preparation of teachers who would appreciate them and would be able to conduct the instructional programmes with effectiveness and by setting up of an evaluative machinery which can examine, from time to time, the manner and the extent in which the rising generation is actually absorbing these ideals. It is these areas which need the intensive attention of thinkers from a large number of allied disciplines - educationists, philosophers, sociologists, anthropologists, economists, administrators, political thinkers and others. But unfortunately no large scale effort has been made so far to bring these related disciplines to bear intensively upon the problems involved so as to translate the philosophical objectives of education into day- to-day programmes of school instruction which the teachers can put across with ease and efficiency. Educationists still largely confine themselves to merely class-room teaching or pedagogy and the only allied discipline which is studied to some extent is educational psychology. Consequently, very little work has been done, in the last few years, to elucidate the full

educational implications of these national goals and to translate them in educational practice in terms of curricula, teaching methods, learning materials, organisation of institutions, preparations of teachers, administration and finance. This is, therefore, one area in which the Commission may have a significant contribution to make.

III - DEMOCRACY

13. With these preliminary observations, let us proceed to discuss the educational implications of the seven national goals which have been identified in the post-independence period.

14. The first, and by far the most significant, of these is democracy which we have accepted, not only as a form of political government, but also as a way of life. It is, therefore, the responsibility of schools to 'consolidate' democracy, i.e. to build up attitudes and values in the minds of the rising generation which will make democracy an integral part of the personality of each child.

Fortunately, the results of a good deal of thinking and research carried out on 'education for democracy' in the older democracies like U.K. or U.S.A. are readily available for use in this context. We realise, for instance, that democracy implies a great emphasis on 'educating the masters' or the adult voters. A programme for mass education which will include, not only liquidation of illiteracy, but the formation of an enlightened public opinion on every significant issue before the country, is thus an essential pre-requisite for a successful democracy.

It also needs a system of free and compulsory education for children, as visualised in Article 45 of the Constitution, supplemented by a system of secondary and university education of high quality to train the leadership

needed in all walks of life. What is of far greater importance, it also implies the development of such qualities as self-control, tolerance, mutual goodwill and willingness to listen to and, where necessary, to concede to the 'other' points of view. It also implies the cultivation of new attitudes such as putting 'principles' above 'personalities' and giving loyalties to institutions and ideas rather than to 'individuals'. It has also large implications for educational administration which should be largely decentralised and based on the voluntary and responsive participation of all concerned and for the techniques of teaching - both curricular and extra-curricular - which should encourage free thinking, discussion, consideration for others, and participation in common programmes.

Obviously, the stability of a democracy is directly proportional to the effectiveness with which these basic democratic attitudes become the warp and woof of the texture of popular thinking and behaviour.

15. Our main weaknesses cannot, therefore, be ignorance or that we do not know what 'education for democracy' really implies and needs. The problem here arises, not from any lack of knowledge or failure to conceptualise, but from poor or indifferent implementation of known ideas, which is a far more frequent experience in our educational set up. For instance, we have not been able to liquidate mass illiteracy nor to provide free and compulsory elementary education. Our system of secondary and higher education is weak, especially in terms of quality, and does not provide that type of leadership in various walks of life which is essential to realise our goals. In particular, the leadership is very weak in the rural sector where the persons in key positions, such as good farmers or artisans, members of cooperative

societies or Panchayati Raj institutions, etc. have received little or no education and still have such tribal, feudal or other reactionary attitudes as are diametrically opposed to the requirements of the new social order we are wanting to create.* Similarly, our teachers have but a very imperfect understanding of all the implications of education for democracy and the teaching methods in our schools (and probably also in colleges) are more in the traditional dictatorial attitude of 'you must learn what I teach' rather in the truly democratic technique of leading the students on for free thinking, rational judgment and discovery for oneself. The experiment of pupil self-government has now been introduced in most schools - and that probably is

*This problem of leadership in rural areas has received far too little attention so far. The official leadership in this sector is limited to the village teacher, the gram-sevak or the village Patwari and at best, to the functionaries of the Community Development Block Team. It has its own obvious limitations. For non-official leadership, almost nothing has been done except the abortive experiment of Janata Colleges patterned on the Folk High Schools of Denmark, and some schemes for the training of members of Panchayati Raj institutions which are now being implemented by the Community Development Administration. One of the major areas for investigation by the Commission should, therefore, be the existing pattern of rural leadership and the educational programmes needed to vitalize it and to gear it to the creation of a modern society.

the one major technique adopted for inculcating democratic ideas and attitudes - but its implementation leaves much to be desired. For instance, one often comes across, even in remote rural areas, a school which will have its Chief Minister, Health Minister and a full-fledged Cabinet of Ministers. One often wonders whether the experiment really inculcates democratic attitudes or merely aggravates the unfortunate trend of the present Indian society to overemphasise politics and political figures. Very little evaluation of this subject has been made. But a research project carried out by the Vidya Bhawan G.C. Teachers' College, Udaipur on 'Education and Democratic Attitudes in Schools' showed that our teachers do not always have a clear concept of what democracy means, what the democratic attitudes are and what the methods of teaching and school organisation should be to promote them. Even the students get very little insight into the meaning of democracy and democratic institutions and values - this is true of even the secondary stage, to say nothing of the elementary. It may be worthwhile to carry out some of the fact finding studies about the extent to which teachers and students at different levels are

*For details please see Education and Democratic Attitudes in Schools included in Educational Studies and Investigations, Vol. I, published by the National Council of Educational Research and Training, 1961.

conscious of the educational implications of the adoption of democracy as a national goal and the extent to which the present curricula and techniques of teaching succeed in training them in a democratic way of life. This may be one of the studies to be sponsored by the Commission.

16. Even to a casual student, it soon becomes obvious that even the political democracy in India is not working satisfactorily and that we have still a very long way to go to create a really democratic way of life. There is nothing surprising in this. Democracy is a very difficult and challenging form of government to practise and still more so as a way of life. It is comparatively new to the world and very few countries have made a success of it after taking an unconscionable time to do so. In spite of the fact certain forms of democracy were evolved and practised in ancient India, these were so entrusted with later feudal and casteist developments and democracy may be said to be new even to modern India. Its acceptance by the country is not the result of any deliberate decision on the part of the masses: it is mainly due to our association with the British people and to the lead given by the national leaders of the last hundred years who were brought up under the influence of the liberal democratic traditions of Britain. In fact, it is very easy to see how thin the democratic veneer of Indian life is at present. For instance, caste is diametrically opposed to all concepts of democracy; and yet democracy in India has accepted caste and is thriving on it. Leaders of the majority castes accepted democracy, not so much because of the intrinsic conviction of its worthwhileness as because of their shrewd perception that this form of government would immediately enable them to oust the gifted and powerful but minority communities of the Brahmins, Banias or the Zamindars and Princes. Caste is now a powerful factor in the winning of elections and the getting up of a

candidate very often depends, not so much upon his personal merit nor upon his political affiliation as upon the votes of the dominant castes in his constituency; and this regrettable fact, which is anything but democratic, is almost the order of the day in political elections. Similarly, what has now been created in the country is not strictly a form of democracy but a form of 'bossism' - a system in which few important people control votes by hook or crook (more often by crook) at the local level and all the elected representatives at higher levels try to retain their position by establishing personal equations with these local bosses and by trying to meet their demands, fair or foul, in all possible ways. Similar comments may also be made regarding our success in creating a democratic way of life. Our attitudes are still very largely personal and feudal; and many of the social reforms based on democratic values are not implemented in practice because the essential democratic attitudes just do not exist. For instance, the Hansa Mehta Committee pointed out that the de jure equality granted to women in the Constitution is not effective in practice because there is a great ignorance concerning the real nature of sex differences and that the traditional attitudes of the superiority of men over women and because of a double standard of morality still largely dominate the popular mind*. It is, therefore, obvious that the consolidation of democracy in our political life and its purification, or the implementation of social reforms tending to equality, will not be successful unless a very big effort is made, through the educational system of the country, to inculcate the democratic attitudes and values among the adults and the rising generation. This would be one of the important areas which the recommendations of the Commission would have to cover.

*Differentiation of Curricula for Boys and Girls, Ministry of Education, 1964.

17. The second important goal is that of secularism. Obviously, the subject is of very great importance because it is only a secular democracy which can hope to succeed in a multi-religious country like India. However, our acceptance of secularism, as in the case of democracy, is due, not so much to any fundamental convictions on the subject, as to certain accidents of history: the policy of non-intervention in religious and social matters which the British Government adopted on grounds of expediency and which we decided to continue for precisely the same reasons and the great vision of Pandit Jawaharlal Nehru who was convinced that India must adopt secularism to live and to grow. But unfortunately this intricate problem has not received much attention and, unlike democracy, there is very little that we can borrow from other countries to help us in this sector.

18. There are some controversies regarding the concept of a secular State and the type of secularism that ultimately emerges from the constitutional provisions*. We are not directly concerned with these politico-legal aspects of the problem and we shall have mainly to determine the educational implications of secularism. The present position on this issue seems to be that the objectives of national secularism would be served if (1) no religious instruction is provided in government schools and colleges; and (2) if, in private institutions aided from State funds, no religious instruction is made compulsory for any child against the wish of his guardian. These are not original decisions of ours - they had already been taken and implemented by the British Government for over 150 years and we have merely continued them. Besides, the first of these is the

*It would be desirable to have a paper prepared on this subject for the guidance of the Commission (Attention: Prof. M.V. Mathur). The following books may also be seen:-

1. Ved Prakash Luthera: The Concept of the Secular State and India.
2. Prof. Donald Eugene Smith: India as a Secular State.

accepted policy in U.S.A. and Australia and the second is the Indian equivalent of the 'conscience clause' which was evolved in England in the nineteenth century. It thus appears that we have created a new concept of secularism in theory but have equated its educational implications in practice to the earlier British policy of religious non-intervention.

19. But is this purely negative attitude to religious instruction in schools the only requirement of creating secularism in India? Obviously not; and it would readily be granted that what we have to take is some positive and concrete steps to develop secularism as a way of life just as we have to foster democracy as a way of life. From this point of view, we find that even a clarity of concepts does not exist. The present proposals on the subject may, for example, be summed up as follows:-

(a) There is a large group of persons; even amongst the Hindus, who strongly feel for the imparting of religious instruction in schools. They admit that the constitutional provisions, as they stand at present, will not permit this; but they have no hesitation in suggesting that the Constitution needs amendment on this score!

(b) There is a very strong demand among the Muslims that religious education should be provided in schools. In order to give this facility to the Muslim children, they would also equally support the provision of similar facilities to the children from other religions as well. But the administrative and financial implications of this proposals are almost prohibitive and when one considers them, one suddenly realises that the British decision of not providing religious instruction in the schools was as much administrative and financial as socio-political.

(c) Even under the present Constitution, it is possible for the different religious groups to maintain private schools where religious instruction can be provided. Fortunately, it will not be possible for the different religious groups to avail themselves fully of this concession under the Constitution. But if they do, the State system of education will almost have to be liquidated and the children belonging to each religion will grow up in isolation from one another right from childhood with the result that social cohesion will be lost and the very freedom and integrity of the nation would be endangered.

(d) Another view, which is recently coming up, is that not formal religious instruction, but moral and spiritual instruction combined, at appropriate levels and in appropriate manner, with studies in comparative religion, may be provided in schools. Apparently this gets over some constitutional objections; and consequently this approach has been adopted by Sri Prakasa Committee* which was appointed by the Ministry of Education. Its report has since been published and some work to implement its recommendations has also been done. But it is soon found that all the difficulties inherent in religious education again come up under this approach at a slightly later stage. For instance, it would be very difficult to come to a unanimous agreement on a programme of 'moral and spiritual instruction' to be given in the schools to which the followers of all religions would whole-heartedly subscribe. In the absence of such agreement, the chances of the programme making any progress are very meagre.

20. We are thus faced with two major problems. The first is to evolve a positive attitude to secularism which implies, not indifference to religion, but a sympathetic understanding of

* Report of the Committee on Religious and Moral Instruction,
Ministry of Education, 1960.

all religions and a willingness to treat religion as a purely personal affair which does not prejudice social or national policies. Somehow measures have to be taken to see that the followers of each religion get a sympathetic understanding of the other religions in the country and develop an attitude of goodwill, tolerance, cooperativeness and co-existence towards them. This is not happening in our schools at all. In fact, whatever little evidence is available goes the other way and shows that, even amongst the highly educated students, there is a great deal of misunderstanding and antipathy towards the followers of other religions* .How to change this situation for the better would be one of the major areas for the Commission to consider. Secondly we have to evolve, in the rising generation, moral and spiritual values which nourish the soul and build up character. The entire past tradition in this respect has been to relate these values to religion. even when the schools stopped teaching religion, the home continued to perform this function. But now, the home is failing us, especially in the case of the large number of secondary school and college students who belong to the first generation in their families to be educated. We are thus face to face with a situation where the same values are to be evolved in schools which profess a secular system of education. How this can be done is another major area for the Commission to study. Fortunately, some good literature on this subject is available from researches and experiments carried out in U.S.A. and we may avail ourselves fully of it**.

*This can be seen very clearly in the findings of a research study conducted at the Tata School of Social Sciences, Bombay.

** The Commission may have a paper prepared on this subject by some person who is familiar with the American system of education, for its consideration.

V - HINDI

21. The development of Hindi as the official language of the Union is the third national goal incorporated in the Constitution. This is, however, an entirely separate issue which has little direct relationship to the philosophy of education. It is, therefore, proposed to deal with it in a separate paper.

VI - EDUCATION AND ECONOMIC DEVELOPMENT

22. The fourth important national goal, identified and incorporated in the first three Plans is the elimination of poverty by raising the national income very rapidly through the adoption of science and technology and through the modernisation of agriculture and large-scale industrialisation. It is also realised that a rapid economic development of the country will not be possible unless an intensive programme of family planning is taken up simultaneously - the target being to reduce the birth-rate to half in a period of 10 to 15 years. There can, of course, be no two opinions on the desirability of these goals; and hence the main question to be posed is this: what role does education play in economic development and how should education in India be reconstructed so as to quicken the pace of economic growth?

23. One aspect of the problem has been well recognised. The development of industry needs trained manpower and hence, technical education has been accorded very high priority and rapidly developed in the first three Plans. In fact, Technical education is the one sector of educational development where the achievements of the post-independence period are seen at their best and this is the one educational area which is least open to criticism. But there are several other important aspects of the problem of economic growth which have not been equally highlighted and it is these that need attention.

24. The main weakness of the Indian intellectual tradition

has been that the elite consisted mainly of learned people - philosophers, poets, priests, etc. - who devoted themselves exclusively to higher learning, never worked with their hands, and lived on the material goods which the ignorant masses produced and offered to them in a spirit of devotion and reverence. Hence grew up a social ethos which denigrated work and in which an educated man generally refused to work with his hands. Even our modern educational system has been mainly academic and book-centred and our educated men have always desired for and preferred white-collar jobs. This attitude, though unhealthy, did not create social and economic malaise so long as the number of educated persons was small and so long as they could be provided with white-collar jobs, however humble. But now the output of the educational system has increased by leaps and bounds and it is no longer possible to give white-collar jobs to all educated persons. This has created two different sets of problems. On the one hand, there is a good deal of educated unemployment and possibly an even greater extent of frustration and waste because a large number of educated persons have to accept humbler and lowly-paid jobs which are beneath their 'status' and for which they have obviously received a costly education. On the other hand, there are a number of well-paid jobs in the industries for which no trained people are available or which the educated people will not accept as they involve manual labour. Moreover, the social denigration of manual work creates attitudes which prevents intelligent boys from taking to manual vocations and even when they do, their efficiency leaves much to be desired. It is obvious that this ethos and these attitudes will have to be radically altered if economic growth has to be accelerated.

The only attempt which has so far been made in this direction is the scheme of basic education; but it has not succeeded. One of the important problems to which the Commission will have to address itself, therefore, is the methods of changing the present social ethos which denigrates work and under which educated men refuse to work with their hands. This will obviously need considerable reconstruction of school work at the middle school and secondary stages (where white-collar attitudes are first developed) and also some changes at the university stage (such as the introduction of camping, etc.) because it is really the universities that create the social ethos. It will also imply a considerable provision of work-and-learn courses at all stages. The compulsory introduction of camping and compulsory provision for one year of national service (at the end of the school course) are other suggestions made in this context which may also be considered.

25. There is another important aspect of the problem. It is in the agricultural sector that the rate of growth is very slow and unless agricultural production is rapidly increased, the situation is not going to improve. This in fact, is the key to the solution of the problem. The question naturally arises: what is the role of education in increasing agricultural production? The Commission may advantageously address itself to this question; and whatever the answers in terms of the reconstruction of the existing educational system, these will have to be highlighted in the report of the Commission. The same exercise may also be done with industrial production. The problem may also be discussed with the leaders of industry to ascertain the educational needs implied in a programme of rapid industrial

*Report of the National Service Commission, Ministry of Education, 1960.

growth and the findings may be highlighted in the Commission's recommendations.

26. There is yet another problem of economic growth with which education is concerned: the development of attitudes which assist economic growth. For instance, economic growth will not be possible unless the people develop such attitudes and habits as hard-work, cost-mindedness, cooperation, or skill in working with hands. They must also save to the utmost for purposes of capital formation which, at least in the initial stages, will come more through restraint on consumption than from increased production. This will mean a practice of simplicity (not from the point of philosophy but from sheer economic necessity) for several years to come. In fact any programme of rapid economic growth for an underdeveloped country implies the need, for at least one generation or till the 'take-off' stage is reached, of developing the habits of 'working more and living on less'. The Russian experiment bears this out fully. We, on the other hand, are doing everything possible to create an attitude of increasing consumption and working less - a situation that makes economic progress difficult. Education, therefore, has an important role to play in building up the right attitudes and habits which will foster quick economic growth and the Commission will have to address itself seriously to this problem.

27. Germane to this problem of economic growth are the two allied problems of population control and manpower utilisation. Adult education has a very important role to play in population control because family planning is essentially a programme of education and motivation. In manpower utilisation, we come across two important problems - educated unemployment and shortages of trained manpower in certain key-sectors, both of which are deeply concerned with education. There is also the

problem of underemployment or unemployment in the agricultural and rural sector for which a solution in part at least lies in education suited to the development of an agro-industrial technology. All these are very important issues which have not received adequate attention so far. In fact, education has not been employment-oriented and consequently, the Ministries of Education and Labour and Employment (which has several significant educational programmes) have not come together to any appreciable extent. It will be one of the major tasks for this Commission to bridge the conceptual gaps that now separate education from employment and make suitable recommendations to that end (these will imply a fairly large-scale reconstruction of education at all stages).

28. It is necessary but obviously not enough to bridge the gap between education and employment merely at the conceptual level. It is also necessary to devise a practical methods to implement a programme of education-employment coordination. From this point of view, it may be good to begin pilot projects in a few selected backward districts - say about 25 or 30 in the whole of India - where an intensive attempt would be made to solve the problems of population control, economic growth and educational reconstruction in a coordinated manner, for it is only in this way that they can ever be solved. For this purpose, there should be constituted, in each district, a District Development Authority which should be statutory if possible. Its main responsibility should be to prepare and implement an integrated and comprehensive plan of district development - a plan which will consist of three parts - family planning, economic development and education reconstruction. At present, the labour force cohort (i.e. the boys and girls who attain the age of 16 and enter the labour force in a given year)

suffers from three main defects or difficulties. The first is that its size is too large - about 2 per cent of the total population - owing to the prevalence of a large birthrate. Secondly its educational attainments are also very meagre - about 60 per cent of the cohort would be illiterate; about 35 per cent would have completed primary schooling and attained permanent literacy; about 25 per cent would have received more than five years of schooling and probably completed the middle course; about 10 per cent would have completed the secondary school; and only about 1 or 2 per cent might be graduates. These are far too inadequate for the creation of a modern social order. Thirdly, the rate of economic development, especially in rural areas, is so slow that there are not enough jobs for even half of this cohort. What is worse, the little education that has been given to its personnel is so predominantly academic that there are no suitably trained persons to man the key posts in several sectors of industrialisation that are being developed at present. It should be the principle responsibility of this Local Development Authority at the district level to prepare an integrated plan of district development whose objectives will be:

- (1) to reduce the birth-rate to about half in a planned programme of 10-15 years;
- (2) to bring about a very rapid economic development of the local areas in such a manner that there would be a job for every young man or woman who enters the labour force and who decides to remain in the district (it may be assumed, by and large, that about 90 per cent of the children born in the district would remain within the district); and
- (3) to provide such education to the young boys and girls within the district as will qualify them to participate

effectively in this programme of the economic development of the district.

In other words, the plan will reduce the birth-rate, develop economy and reconstruct education in such a manner that, as from a given date to be reached in 10-15 years time, there would be a job for every person in the labour force cohort of the district and there would also be a suitably trained person available for every job needed for the economic development of the areas. Some such broader vision of the problem is inescapable if the educational problems facing the country are to be solved satisfactorily.

VII - SCIENCE AND TECHNOLOGY

29. Rapid economic development is possible only through the adoption of science and technology which is also equally indispensable to two other important goals we have in view: the modernisation of the traditional social order and bringing about a massive cultural renaissance in the life of the people as a whole. Science and technology is obviously the key to the future development of Indian society and it will have to be the central focus, as it were, of all educational reconstruction in the next 15 to 20 years.

30. The problem has several aspects. The first is to strengthen the teaching of science adequately at all stages of education, to identify scientific talent and to assist it to grow to its fullest, and the development scientific research. Moreover, the teaching of science has to be so organised as to impart, not merely scientific information or a few scientific skills to build up scientific attitudes which are rational, empirical and secular. This will need the reorganisation of curricula in science at all the stages in keeping with modern trends; the provision of necessary laboratories and equipment;

the preparation of science teachers; organising a large-scale and intensive programme of indentifying scientific talent at the school stage and helping it to grow through a programme of scholarships and placement in selected institutions and a far larger expansion of facilities for scientific research than we have at present. Even in adult education, we will have to include the teaching of science to a very great extent because it is only through the building up of scientific attitudes that agriculturists or industrial workers will be able to improve their efficiency and increase production or the people as a whole will be able to implement a programme of family-planning. This is, therefore, one of the major problems to which the Commission will have to address itself.

31. The adoption of science and technology will also enable us to modernise our traditional society. This expression, 'modernisation of traditional society', is very often used but its educational implications have neither been clearly conceptualised or incorporated in the plans of educational reconstruction drawn up for traditional societies. The expression is often used to denote the modernisation of externals such as the introduction of television, automobiles, jet planes, or radio sets. More frequently still, it is equated with Westernisation. But neither of these meanings can be wholly true; and since the major problem before the country during the next generation is to modernise the traditional social order, it would be desirable to be more clear about the implications of the concept.

32. The main distinction between a modern and traditional society is the relentless pursuit of knowledge, particularly

* In this connection, a series of three lectures delivered by Dr. W.C. Smith in Sapru House in March, 1964 under the auspices of the Indian Council of World Affairs will be of great interest.

in science and technology. Knowledge as a whole, and particularly scientific knowledge, is now increasing at a tremendous speed and is doubling itself in about 10 years. This rate will grow even faster as days pass by. A society, which desires to modernise itself and keep being modern, will, therefore, have to organise its social and educational institutions in such a way that it is possible for it to participate, on a basis of equality, in the relentless pursuit of knowledge which has become the common endeavour of mankind at present. Educationally, this implies the building up of a strong educational system which will cast its net very wide to discover talent (through a programme of universal education), and then provide the best opportunities possible for these talented students to develop their potential to the full. It also implies an emphasis on university education and particularly on the development of post-graduate teaching and research. Secondly, a modern society offers a larger way of life to individuals than what a traditional society can ever hope to do; and consequently, an individual in a modern society has many choices before him at several crucial stages in his life. For instance, the woman in the traditional society has very limited scope beyond the home and the hearth; but in a modern society, she has far larger opportunities which are almost co-extensive with those open to men. The control of population is not human but a divine problem in a traditional society; in a modern society, it becomes one of the factors which man can control. Other examples could be easily added. This variety or richness of choices which a modern society affords to every individual has its own obvious advantages; but it must be remembered that it also creates other problems of great significance. For instance, the future of the society will

depend upon the type of choices which each individual will make and this, in its turn, would depend upon his motivation and sense of values. For instance, the choice may be made with reference to one's immediate gain or it may be made in a spirit of service and with a view to common good. This raises a whole series of moral and spiritual issues and shows that, in the last analysis, social good can be secured only in a combination of 'knowledge' (which science and technology can bring) with the 'sense of values' or motivation with religion, or ethics or spiritualism contributes to life. The emphasis on mere knowledge and technical skills, which unfortunately is accompanied by a simultaneous (though not casually related) decay in spiritual and moral values of life is creating several problems in Western society which almost threaten to put an end to human existence itself and there is already a noticeable desire among Western thinkers to balance the knowledge which science and technology bring with the larger values implied in religion, such as the meaning of life, the relationship of man to other human beings, to society and ultimately, to God. Gandhiji's main contribution to this sector was to emphasise the importance of spiritual values as a counterbalancing factor to scientific development. In fact, he went to one extreme and asserted that he would rather refuse to have science if its potentially dangerous trends could not be adequately controlled. We need not accept this view. But it may be worthwhile for us (1) to explore the possibility of combining scientific development with spiritual values right from the start and (2) to accept the idea of decentralization of industries (in which people can live and work in smaller groups and in face-to-face relations) in preference to large-scale mass-production which creates huge, insensate and sprawling cities. The obvious implication is that the educational system we are likely to reconstruct in the next 5-20 years should emphasise; not only the development of science and

technology, but also the building up of character and the development of moral and spiritual values. The Government Resolution setting up the Commission makes a special reference to this goal and it is obviously a major point to which the Commission would have to address itself.

VIII - EDUCATION AND CULTURAL RENAISSANCE

33. Closely related to the adoption of science and technology is the problem of education and cultural development. Prior to the advent of the British rule, this problem just did not exist because education was then concerned exclusively with the preservation of ancient traditional learning and values of life. With the advent of British rule and the ushering in of the modern educational system, an immediate conflict arose: Was education to preserve the ancient way of life and cultural values almost unchanged as the older generation seemed to demand, or should it entirely abandon all traditional values and be fully Westernised (Macaulay said that the educational system he advocated would create young persons who would be 'Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect'), or should it evolve a synthesis of the ancient Indian and the Western cultures? In the early days the theory of substituting Western culture for the eastern held sway, but it did not work out in practice. It is true that most young persons who came out of the educational system were de-nationalised and de-culturised and ceased to be 'Indian'. But they did not become even tolerably like the English, except in some external matters like dress, food or drink. This theory was, therefore, soon given up. Similarly, the concept at the other extreme, namely, that the traditional way of life and cultural values should continue unchanged in spite of the contact with the West which came through modern education, was too unrealistic to be practicable and had also to be given up. The ultimate policy, therefore, was to secure a synthesis of the ancient Indian and modern Western cultures. From this point of view, the study of

the classical languages of India was encouraged, both in secondary schools and colleges and the study of Indian art and architecture, history, and philosophy began to find an honourable place along with that of Western literature and philosophy. Of course, the exact manner in which this synthesis was worked out differed from person to person or from time to time. But on the whole, the balance generally tilted on the side of the Western values of life.

34. The nationalist upsurge that arose about 1900 was a reaction against this trend and it emphasized the greatness and value of ancient Indian culture and traditions. The general view was that the whole world is tending to be one and that, as time passes, the difference between the Eastern and Western countries will continually tend to diminish; that India has every right to be proud of her glorious past; that in the cultural exchange between India and West, India has also something worthwhile to give in the realm of spirituality while it receives the gift of modern science and technology from the West; and that Indians should strive their utmost to keep up their own traditional culture while simultaneously accepting all that is good in the West. Although this sounds, to some extent, like blind revivalism or chauvinism, it was not either. It was an attempt, as Gandhiji put it, to refuse to be blown off one's feet even when all the windows of one's house are thrown open to fresh winds from every corner of the world. The attitude supported a feeling of proper pride in one-self, in one's country, and in one's heritage and strengthened the love of the motherland, the nationalist sentiment, and struggle for freedom. These were the immediate aims of this movement and they were admirably met, not so much by what happened within the

educational system, as by the work of nationalist leaders in the society at large. Among these may be mentioned Swami Vivekânanda, Pandit Madan Mohan Malaviya, Dr. Annie Besant, Lala Lajpat Rai, Lokamanya Tilak and Mahatma Gandhi.

35. One cannot help feeling that this keen revival of ancient values and respect for the past was stimulated, less by any intrinsic faith in these concepts but more by political considerations, because with the attainment of independence, when the political support to these ideas has disappeared, the interest in the classical languages has begun to wane (the three-language formula is also partly responsible for this), and in a nation which claims to save the world through its philosophical contribution, philosophy is the least popular among the university subjects. Once again we have a situation where the intelligentsia is losing its hold on its own past moorings and is either being rapidly westernised or is being driven into a sheer cultural or spiritual vacuum. As a reaction to this loss of cultural values which is being far too general, we are also developing a group of persons who may be described as the temple-town leadership and which is fanatically revivalist and chauvinist. With these two extreme trends growing together, the situation is, to say the least, disquieting.

36. The pity of the matter is that all these vicissitudes in the attitudes to Indian culture have affected only the elite, the small intellectual class which has received secondary and university education, mostly of the liberal and academic type, while the vast masses of the people have remained ignorant and illiterate even to this day and still lead a culturally mediaeval, or even primitive life. It is, therefore, obvious that the cultural renaissance in India has not affected the masses at all. All that it has done is to change the character of the small minority of the elite or

intellectuals. Till the end of the eighteenth century, this elite consisted of a few top castes and was entirely mediaeval in character. Under the impact of modern education, it came in contact with the West and passed through several metamorphoses. At first, it was strongly westernised; then it developed a synthesis between Indian and Western cultures, although the impact of the West was more dominant. Then came the third phase of a nationalist upsurge when its moorings in the past went deep without excluding Western influences, especially those of democratic liberalism. This was its most creative period in all walks of life, a period which is symbolised by the rise of great writers in every Indian language who built up valuable literature and by such national figures as Vivekananda, Dayanand, Tilak, Tagore or Gandhi. It was also in this period that the battle for freedom was fought and won and the elite was closest to the masses. But that creative vein now seems to be waning and we seem to have become ambivalent: the larger groups have begun to lose their grip on the national heritage while a small minority is becoming militantly revivalist. Inevitably, this is also increasing the distance between the elite and the masses.

*It is this predominantly white-collared elite, generally insensitive to the sufferings of the masses that Dr. Tao has in view when he speaks of the Scholar Ghost.

"What is a scholar ghost?

He lives along the Pacific Coast.

He has bookish knowledge to boast.

He has his eyes on the official post.

He likes delicious food,

And makes the half-starved farmers to be his hosts.

When jobless, he teaches children,

And makes all of them little scholar ghosts."

37. From the national point of view, we need to change the situation radically in three ways, if there is to be a cultural renaissance among the people as a whole. In the first place, the intelligentsia itself has to be changed in quality, in composition, in academic heights and in creativity. The elite is very small at present, less than one per cent of the population. This will have to be increased to about 10 per cent of the population to make any significant dent on the large and complex problems we have to face. Its composition has already changed to some extent - it is no longer restricted to a few upper castes and includes persons from all castes and strata, although the lower castes - and particularly the Harijans and Adivasis - are rather under represented. The situation would have to be improved by identifying talent in all areas and helping it to receive higher education through a large programme of scholarships. The other defect in its composition is that it still consists predominantly of white-collared people and the students of humanities. The proportion of scientists and workers in its composition will have to be substantially increased. In respect of academic heights, it does not compare favourably with intellectuals from the advanced countries. At this level, standards of attainment and competence cut across national boundaries and become truly international. The Indian elite, or at least the best among them, should be comparable to those in any other country. But this does not happen at present. The programme can, however, be put across through schemes for the development of selected institutions (like the Centres of Advanced Study) combined with a liberal programme of scholarships. We have probably the most difficult task ahead in respect of creativity. As stated above, the most creative era of the Indian intellectual seems to have receded at present; and to bring it again, we shall have to overcome all those difficulties which hinder creativity

at present: the absence of a centre of inspiration - the struggle for freedom provided this in the past and one wonders why the even more challenging struggle against ignorance, ill health, and poverty cannot act as a substitute for it; the loss of pride in one's own cultural heritage and the consequent dependence on external sources of cultural and intellectual nourishment (Shils has rightly observed that the Indian intellectual lives in the 'provinces' of the metropolis of British intelligentsia); the strifling effect of an alien medium of instruction; the increasing distance from the masses of people which also implies an attitude of escapism from the hard realities of life into an ivory tower of intellectual sophistication; and the sense of frustration that seems to be gathering because of a loss of political power and responsibility (democracy has succeeded in putting a large number of non-elite into positions of power and at the moment, they do not seem to have even accepted the need for intellectual guidance). This is indeed a difficult task; but we have to attempt a break through some how.

38. The second change needed refers to the masses whose cultural level has been kept low for centuries together. Our old tradition has been to rely on a few great men (which this country seems somehow to produce from time to time) and, in the glory radiated by these giants, to forget conveniently the fact that our average man is but a pygmy. What we need in the modern world, and particularly in a democracy, is an increase in the height of the average man. 'Make no more giants, God! Raise up the whole race at once!'; said Browning as an appropriate prayer for the modern world. We must, therefore, try to raise the cultural level of the masses through programmes of compulsory elementary education and adult education.

* Edward Shils: The Intellectual between Tradition and Modernity: the Indian Situation.

39. The third change refers to the relationship of the elite and the masses - will it be a service-group which will strive its utmost for the uplift of the masses or will it be an exploiting group which will live for itself and try to perpetuate its own privileged position? Our past traditions are not very happy. Our traditional elite was mostly an exploiting group which lived on the masses. The new elite created by the modern system of education also played the same role in the early stages because, tempted by the cushy jobs under Government, it allied itself with British power to continue the slavery of the country and the exploitation of the masses. Then it revolted against British authority and, by fighting in the name of the masses, it finally won freedom for the country. It was at this period only that it became essentially a service group and its relationship to the masses was closest. But since the attainment of independence, it is again tending to become an exploiting group and is moving farther away from the people. In this lies a great danger, not only to the masses, but to the country as a whole and ultimately to the elite itself. Here lies a great challenge to education and one of the very important problems which the Commission would have to consider is the proper relationship between the elite and the masses.

40. There is one more aspect of the cultural renaissance that is needed in India. As was pointed out earlier, the cultural renaissance in India is restricted mainly to the elite or to the upper middle classes. It has still another and a worse limitation: it has drawn its inspiration, not so much from western science and technology, as from western literature and democratic liberalism which, as

*The Indian elite should and can have, as a group, the Intellect of Shankara, the compassion of Buddha, the democratic brotherhood of Mohammed, and the spirit of service which Christ so eloquently preached.

Gokhale said; has freed the Indian mind from the 'thralldom of old-world ideas'. But the true renaissance of modern society can only come from science and the scientific attitudes and this is still a task for the future in India.

41. When all this is said (and even done), there still remains the basic fact that the renaissance we need cannot come except upon the foundation of our traditional heritage which, in the context of our acceptance of the scientific method, will be continually modified to meet new situations and challenges. A people cannot throw away their past just as one gets rid of an infected appendix: to do so would cause a trauma that would stifle all creativity. At the same time, we cannot live a fossilized existence in a dynamic and rapidly changing world. What we need is an educational system which will not only preserve our cultural heritage but also continually modify it by a judicious process of omissions, additions and modifications to suit new situations and challenges. This is not difficult for Hindus because, as Dr. Radhakrishnan has pointed out, Hinduism is not a position, but a movement. Muslims have stronger resistances on this point. But they too cannot but cultivate the humility to seek truth from outside. The conceptualisation of this new form of cultural renaissance is the task of the intellectual and it is the responsibility of the educational system to carry these new concepts to the masses. This is another challenging area to which the Commission may address itself.

IX:- NATIONAL INTEGRATION

42. National integration is another important goal. The need for this is inherent in the Indian situation itself. The Indian continent shows a picture of great diversity with its different religions, languages, and races; within or in spite of this diversity, however, there is (or can be

created) an underlying unity which makes it a nation.

National Integration may be said to have been achieved when every citizen has this essential underlying unity in 'diversity', gets emotionally involved with it, and comes to regard it as so great a value that, if need be, he is prepared to sacrifice his all for its preservation. To secure this is obviously a task for education, although it has to be fostered in several other fields also - economic, political and administrative.

43. There are several facets to national integration.

The first is the need to inculcate the love of the motherland in the heart of every child and adult. This is not an easy affair. In advanced countries, which are de facto welfare States, the nation does so much for each individual by giving him status in the international sphere, by providing him with education and employment and by assuring him of a fairly satisfactory and high standard of living that he does develop a loyalty to his country just as one develops an attachment to one's mother through her devotion and care. In fact, the loyalties to one's country transcend even those towards a mother because, as a poet put it, the mother looks after us mainly in our childhood, while Mother Nation tends us throughout our life. But in a developing country-like ours at present, the nation can do little for the average person: in fact it has little to give and quite a good deal to demand in return. The appeal for patriotism, therefore, has to be made under more difficult circumstances: it is not the natural gratitude expected in return for favours conferred, but an appeal to idealism or to the generous instinct of giving one's all to something which one regards as 'valuable'. Men do respond to such appeals. Garibaldi promised his followers days of toil, sleepless nights, a life of poverty and difficulties, and an unceremonious death. In spite of this, his appeal in the name of the liberty of the Italian people

did receive a great and a noble response. Gandhiji offered nothing better but did move the masses. Our appeal in the name of Mother India, for at least another 15-30 years till she actually becomes a Welfare State, will, therefore, have to be similar and it will succeed only if the people feel that all these sacrifices they are called upon to make are worth-while and are being made for something which is 'valuable'. For this sense of 'value', one can only build up on the past and the future. In other words, we must inculcate an understanding of and a proper pride in our great cultural heritage and also create a strong attachment to the equally great (or even greater) future we have in view. The motherland will have to stand for some basic 'values' in life such as democracy, equality, fraternity, social justice, etc. in order to be herself 'valuable' in the present state of transition. There is probably not enough appreciation of these aspects of the problem and the existing educational programmes for instilling the love of the motherland among the students, therefore, leave much to be desired.

44. Economic equality and social cohesion are two other important aspects of national integration. Today, the divisive forces are too numerous and too powerful: disparities in wealth and standards of living; regional imbalances of development; caste; unequal status of women; inequalities in educational provision; and religion. The adoption of socialism and rapid economic growth (in which education has a significant part) can help to overcome the economic factors. But education has a major role to play in over-coming the divisive social forces. Men have to be educated to regard women as equals and women to a better appreciation of their own selves. The Hindus know fairly well how to live with 'other religions'; but they do not know how to live with themselves. They will, therefore, have to be educated to adopt a real democracy in their own midst by the abolition of caste. The Muslims can live well with themselves but do not know how

to live with others, because they have a built-in inheritance of democracy which, unfortunately has been interpreted as a caste system for the believers alone. They will, therefore, have to be educated for a life of co-existence with Kafirs*. In addition, educational programmes, and particularly the programme of identifying talent and scholarships, will have to be deliberately and largely used to create social mobility which will cut across all barriers of caste, sex, race, or religion. It must be realised that national integration will be directly proportional to the degree of economic equality we introduce or the extent of social cohesion we promote.

45. The creation of a unified elite is another major facet of national integration. In ancient and mediaeval India, the unity of the entire sub-continent was preserved, such as it was, by just one factor: the existence of an elite of Brahmins who had a common culture throughout India and who spoke a common language - Sanskrit. In the mediaeval period, two different elites grew up - Hindu and Muslim - but the Hindus and Muslims came together only to the extent to which these two elites understood each other in search of common points of philosophy. In the British period, a new all-India elite was created which spoke a common language - English - and shared a common faith in several fields and it was the existence of this elite which created the underlying band of unity. In the future also, the hard core of Indian unity will be the Indian elite. The educational system must, therefore, so operate that it will create a new elite with faith in India's past greatness and future glory, which will share all the common values indicated by our national goals,

*In this respect, says Dr. Smith, the Indian Muslim Community has a significant contribution to make to the entire Islamic world. He writes: "The fundamental fallacy of Muslims has been to interpret Islam as a closed system. And that system has been closed not only from outside truth, but also from outside people. The fundamental hopefulness about Indian Muslims, and therefore Indian Islam, is that this community may break through this. It may be forced to have the courage and humility to seek new insights. It may find the humanity to strive for brotherhood with those of other forms of faith." ISLAM IN MODERN HISTORY, p.291.

which will speak two common languages - English for building up an international comradeship and Hindi for communion with the Indian people, and whose ranks will be recruited purely on the basis of merit and without any reference to caste, race, language, sex, religion, or place of birth. The success in national integration will be directly proportional to the quality and quantity of this elite.

46. There are two special aspects of the creation of this elite which demand attention. The first is the need to maintain its mobility - it must be able to move from one part of the country to another and to work in any part of India in spite of linguistic barriers. Unfortunately, parochial and other considerations are already restricting this mobility to a great extent. The only way out seems to be the creation of all-India services in teaching at the post-graduate stage, in research, and in administration. This is an important area which the Commission will have to examine. The second is the need to have, in each linguistic group, a fairly large number of persons who will speak and write all the other languages of India and will be familiar with the literatures in those languages. For instance, in Maharashtra, there must be a few thousand people who, taken together, know each of the other modern Indian languages and their literatures. This can be done by providing facilities, in each linguistic area for the study of all other modern Indian languages at the University level, attracting an adequate number of good students to them through a liberal programme of scholarships and providing employment to them in secondary schools and intermediate colleges (where the three-language formula should be implemented in a proper spirit), or in colleges where these languages would be taught. This programme needs urgent attention from the Commission.

47. This emphasis on the elite should not be mis-interpreted to imply that the masses have no role to play in national

integration. They have an important role which is complementary to that of the elite. Here the main emphasis should be on proper education, in elementary and secondary schools and in adult education programmes, which will make the people of every part familiar with the people in other parts so as to impress upon them the national unity of India. This familiarity should be as deep and as comprehensive as possible, and should cover, general life and culture; life and contributions of great persons, both past and present; and even some familiarity with the language and literature. The great weakness of the concept of national integration has been that while it has been over-philosophized at the conceptual level, no work has been done at the level of educational technology, and hardly any attention has so far been given to the problem of preparing curricula and programmes of activities which will promote national integration in the elementary and secondary schools and in adult education programmes. This aspect is both urgent and important and the Commission will have to take it up.

48. One last point. National institutions established by the Centre which will maintain fairly comparable standards and which will be attended by students from all parts of the country can be a very effective means of fostering national integration. The I.I.Ts., the Centres of Advanced Study, the regional engineering colleges, the national laboratories, etc. are doing excellent service to the cause of national integration. How to multiply such institutions and increase their scope would be one of the major problems for the Commission to examine.

X - SOCIALISM

49. What are precisely the educational implications of the socialistic pattern of society which we have decided to create? In the first instance, there is no clear picture of

what this pattern exactly is; and even assuming that this has been clearly conceptualized, very little work has been done to determine its educational implications. Some tentative suggestions can, however, be put forward.

50. Socialism presumes the state ownership of the means of production in the interests of the common man.

Education is so vital to the development of the common man that, under socialism, it may not be desirable to allow any but a minor role to private enterprise. In our system today, private enterprise dominates the field almost exclusively in secondary and higher education and one of the most significant problems to be faced at present is to determine the precise future role of the voluntary enterprise in education. The acceptance of socialism has created similar controversies in the industrial sector; and the battle will now have to be fought in the educational field as well.

51. Another aspect of socialism is that it becomes the basic responsibility of the State to discover and develop 'talent' which is also one of the most important tools of production or even the means of national survival. Under a democracy, the slogan is that 'poverty shall be no bar to education'. Socialism goes a step ahead and will not rest content until all available talent is discovered and developed to its fullest, irrespective of all considerations of caste, class, race, religion, sex, or place of birth. This pursuit of excellence is the most distinctive feature of socialist education and it is this which makes Russian education so outstanding in the contemporary world.

52. There is another important feature of socialist education, viz., the closest merger between general or liberal and professional education. Under the older traditions, which even democracy has not been able to put down completely, liberal education was distinguished from

vocational education. The former was meant for the 'gentleman' and the latter for the 'worker'. This distinction is no longer very valid and we have now to provide a mixture of general and vocational education to all because 'we must all have a vocation' and we must also be all cultured'. This new approach has not yet been adopted in Indian education.

53. As in democracy, socialism also highlights the need for mass education. The minimum it assumes is free and compulsory elementary education. But in view of its emphasis on industry and workers, it postulates a large-scale development of secondary education as well and probably the widest possible development of work-and-learn plans.*

XI - EQUALITY OF EDUCATIONAL OPPORTUNITY

54. Whether from the point of view of democracy, socialism national integration, economic development, or cultural renaissance, two major educational policies stand out fully: (1) provision of equality of educational opportunity; and (2) the cultivation of excellence, which not only includes the development of talent, but also some other significant programmes to be discussed later. In view of their intrinsic importance, these two concepts will be discussed, separately and in some detail, in this section and the next.

55. The problem of the provision of equality of educational opportunity has different connotations at different stages of education. At the elementary stage, where the goal is to provide free and compulsory education for all, there is no question of any selection. There is also no difficult question of differentiation in curricula because all children have to be put through an essentially common programme of education. A good deal of progress has been achieved in the first three Plans for the realisation

* For the educational part of the Congress Manifesto on 'democratic socialism', please see Annexure II.

of this goal. At the end of the third Plan (1965-66), the enrolment in classes I-V would be about 76% of the age-group 6-10 and that in classes VI-VIII would be about 33% of the population in the age-group 11-13. In the next three Plans, therefore, expansion will have to be continued to reach the target laid down in Article 45 of the Constitution by about the end of the sixth Plan. But this programme will have to be modified with a view to making a conscious effort to secure equality of educational opportunity, because the large expansion secured in the first three plans has not necessarily led to greater equality of educational opportunity. For instance, even at the end of the third Plan, there will be appreciable inequalities of educational opportunity at several levels and in several sectors. From the national point of view, there will be wide gaps between advanced States like Kerala or Madras and backward States like Rajasthan or Uttar Pradesh. At the State level, we find great differences of achievement between certain advanced districts like Amraoti in Maharashtra and Bastar in Madhya Pradesh. Even within the same districts, there are often large differences between one Tehsil of the district and another and even within the same Tehsil, not all villages are equally advanced. There are still large differences between urban and rural areas. From the social points of view, there is great inequality of educational development between boys and girls and also between the advanced classes on the one hand and the scheduled castes and scheduled tribes on the other. In the next three plans, expansion of elementary education would have to be oriented deliberately to the removal of such inequalities. Suitable programmes to this end will have to be devised and we should also evolve statistical and other techniques to measure our progress in this direction from time to time.

56. At the secondary stage, we are yet very far away from the goal of providing universal secondary education. (Even at the end of the third Plan, the total enrolment in the secondary classes would be only about 18% of the total population in the corresponding age-group, although the policies of the State Governments would show that we are heading directly, not for free and compulsory education up to 14, but to free education up to 16 or 17. There is a very little study made of the composition of the secondary school students. Some sample studies in different parts of the country are, therefore, essential to ascertain what the existing position in this respect is and to determine which classes or sectors of society avail themselves of secondary education at present. (This may be a good research study to be undertaken by the Council). But from the very few studies available, it appears that the equality of educational opportunity provided at the secondary stage is far less than that at the elementary stage. There are wide differences between the States and, even within the same State between different districts. Secondary education is still very largely urban and boys still form the vast majority of secondary students. In a study of the Baroda district, it was found that nearly three-fourths of the students belong to the three upper castes. In a similar study of the Kaira district, it was found that about 80 per cent of the secondary school students belong to the three or four top castes while a backward caste, which accounted for about 60 per cent of the population of the district, had only 4 per cent of the enrolment at the secondary stage. It is obvious, therefore, that, at the present stage, the largest beneficiaries of our system of secondary education are boys, the people of the urban areas, and the middle and the upper classes. The future development of secondary education would, therefore, have

to be deliberately planned in order to permit the weaker sections of the community to avail themselves of this facility to a much greater extent than at present. This would be a major problem for the Commission to consider.

57. What is said above of the secondary stage is also applicable to the university stage, if anything, to an even greater extent. The total enrolment at the university stage is still very small, about 2.4 per cent of the population in the corresponding age-group. Even here, no studies about the social composition of the university students are available. But a study conducted in the University of Baroda showed that 88 per cent of the university students came from three upper castes only. In a study of the G.M. College, Sambalpur, it was found that 17.8 per cent of the students came from the business community, 41.5 per cent from the services and only 40.7 per cent from the agriculturists and others, although the agricultural and rural population of the district is upwards of 90 per cent. There is reason to assume that the facilities for higher education are more utilised by the urban people, the middle and the upper classes, and the services or professions, than by the other sectors of society. A programme of providing greater equality of educational opportunity at this stage, on lines similar to that adopted at the secondary, will have to be undertaken in the next three plans.

58. Another very important problem that arises in this context is this: should we make admissions to secondary schools and the institutions of higher education on a selective basis or should we follow the present open-door policy? The Sargent Plan has generally supported a policy of selective admissions and has suggested some very neat ratios. Admissions to the secondary schools, for instance, are to be in proportion of one to five among those who had completed the primary school; and the admissions to institutions of

higher education were to be one for every fifteen who had completed the secondary school. These beautiful and neat ratios have, however, not worked out in practice. In view of the present trends in public opinion, there also does not appear to be any chance, especially at the secondary stage, of being able to make selective admissions. There is some chance of doing so at the university stage, but that also is dependent on a number of factors. One of the major issues which the Commission will have to discuss, therefore is the extent of facilities to be provided at the secondary and university stages of education.

59. The increasing enrolments at the secondary and university stages are bringing into focus two important educational problems. At the elementary stage, the provision of equality of educational opportunity is a comparatively simple affair because it has only a qualitative connotation in the sense that every child has to be brought into school and no qualitative connotation is involved in the sense of providing different types of education to different children (except for the small group of the handicapped). At the secondary and university stages, however, the problem becomes entirely different. Here, equality of educational opportunity has, not only a qualitative connotation in the sense of granting admission to every child that knocks at the door, but also a qualitative connotation in the sense that different types of education will have to be provided to different children in view of their different ages, abilities, aptitudes, and the different periods for which they may be expected to remain under instruction, including practical instruction and training appropriate to their respective needs. Equality of educational opportunity at the secondary stage, therefore, means diversification of courses. What we do at present is to provide the same academic type of education to every child who comes into the

*The Education Act, 1944 of England, Section 6(b).

secondary school; and obviously this is as poor a form of equalising opportunities as to provide an exactly similar piece of clothing to every person, irrespective of his bodily size.

60. At the collegiate stage, a factor of even greater importance is the capacity of the student to benefit from higher education and the maintenance of standards. The provision of equality of opportunity at this stage, therefore, does not simply mean the admission of everyone who knocks at the door, but to satisfy oneself that every child who deserves to receive higher education is really enabled to enter institutions of higher education (this also applies to the secondary stage) and to provide as high a quality of education to him as possible. Our present policies leave much to be desired from this point of view. As Shri R.D. Choksi puts it, 'the concept of equality of educational opportunity means different things at different stages. At the elementary stage, it means quantity; at the secondary stage, it means diversity; and at the university stage, it means quality.' The Commission will have to study all these aspects of the problem of providing equality of educational opportunity, especially at the secondary and university stages, and examine the changes needed in our existing policies in these sectors.

XII - PURSUIT OF EXCELLENCE

61. The objective of a policy of providing equality of educational opportunity is to democratise education and (1) to make elementary education free and compulsory for all children, and (2) to provide secondary and higher education, within certain limitations and conditions, to as many children as possible. In order to obtain the best results, it is necessary to supplement this policy with another, namely, the pursuit of excellence.

62. This policy has several important aspects. The first is to identify talent and to provide it with suitable opportunities to realise its potential for development in full. Naturally, this problem of identification of talent does not arise in the first stage of education, say, primary education of 4 or 5 years covering the age-group 6-9 or 6-10. But as soon as possible thereafter, one has to be on the look out for the more promising students and to select them for the grant of special assistance which would be of two types: (a) placement in a good educational institution where the talented child will be brought in contact with good teachers and will live and study under good conditions; and (b) provision of a scholarship to enable the child to overcome the financial handicaps it suffers from, if any, and which prevent him from pursuing further education. Quality improves only if good students are exposed to good influences; and a process of this type goes on yielding results in a geometrical progression, as it were, with each succeeding generation of students. Unfortunately, a policy of this type has not yet been developed satisfactorily in India. At the end of the primary stage, there is hardly any programme for the identification of talent and for grant of scholarships for continuing in the middle schools. At the secondary stage, a few scholarships are provided for good students by the State Governments; but their number is far too meagre to meet the needs of the situation. At the university stage, the Government of India has recently initiated a fairly large-sized scheme of scholarships at the university stage. Good as this beginning is, it suffers from three defects: (a) the size of the programme is still very small; (b) a good deal of the available talent in the country is already eliminated, owing to the failure of the scholarship system at the lower stages, before the Matriculation examination is reached so that the scheme has only a limited possibility for good; and (c) there is no corresponding scheme

of developing good institutions and placing the scholarship-holders in them. A major problem for the consideration of the Commission, therefore, is to develop a programme of identification of and assistance to talent at all stages of education beyond the primary.

63. The second aspect of this problem is the continuous attempt for deepening the content of education. We live today in a highly competitive world; and the chances of our survival and ability to make our own contribution to the life of Man is in direct proportion to the competence of men and women we are able to produce, or in other words, to the content of education we provide.

64. The educational process can be conveniently described as consisting of three inter-related programmes: (1) to give knowledge; (2) to build up essential skills; and (3) to develop the right attitudes, interests and values on the building up of character. The attempt to deepen the content of education is really related to all the three aspects of the education process.

65. For instance, let us take the first aspect of imparting knowledge. Here, the most important point to remember is that knowledge is increasing at a phenomenally rapid rate and is almost doubling itself in a period of about 10 years. To keep pace with this growing quantum of knowledge, the advanced countries of the world are reforming their educational systems in two ways: (a) by prolonging the duration of education, and (b) by putting more content in the same period of schooling. For instance, the duration of compulsory schooling has now been increased, from 5 to 8 years, to about 10 or 12 years. At the same time, the qualifications of teachers, teaching techniques and equipment are being so improved from time to time that children are able to learn more and more within a given span of education. For instance, at

the end of the eight year of schooling, a child today learns things which were normally learnt in the tenth year of study about ten or fifteen years previously; and this trend is continually on the increase.

66. One is not quite sure that this is happening in all parts of India or that it is happening with sufficient speed or even that the actual reverse is not happening. A historical study of the development of curricula at the different stages of education in all the States of India would throw very interesting light on this problem. By and large, however, I might say that the content of our education today does not provide adequate challenges, either to the students or to the teachers. At the elementary stage, for instance, there has been considerable improvement in the general education and training of teachers. But the content of elementary education has hardly increased in proportion. At the secondary stage, the mother-tongue has been adopted as the medium of instruction. This should have facilitated the assimilation of knowledge very considerably. But it is doubtful whether the upgrading of the curricula of secondary schools has taken adequate note of the implications of this change. Similar observations may also be made at the university stage in respect of any course, except probably such highly specialised courses as those of Medicine, where not to keep abreast of latest developments is death. By and large, our secondary schools now teach a good deal of what should be taught at the elementary stage and the colleges teach a good deal of what should really be taught at the secondary stage.

67. Dr. D.S. Kothari has suggested that we should plan, not only in quantitative terms of enrolments and duration of courses, but also in the more significant terms of content. As a concrete proposal, he has suggested that,

by the end of the secondary stage should be equivalent to the old Intermediate and that to be reached at the first degree stage, should be approximately equal to that now reached at the Master's degree. One need not be very dogmatic about any particular suggestion; but the underlying idea of this suggestion is very clear; the content of education must be continually and consciously deepened and that the implications of this in terms of teachers, curricula and teaching techniques should be clearly visualised and duly provided for. This is an important aspect of the problem which has been totally neglected in all our planning so far and we must introduce it in the educational planning of the future.

68. It is obvious that what is said above about the content of education will also apply, mutatis mutandis, to the teaching of skills and values. The trend in the advanced countries now is to increase the productivity of the worker and this is possible only on the assumption that the level of efficiency of the workers is much greater today than what it was in the past and will be greater still in the future. Similarly, the modern societies are becoming far more complex and difficult to live in than the traditional societies of the past. The former provide more freedom and a larger way of life no doubt; but they also demand greater share of such qualities as self-restraint, tolerance, goodwill, justice, integrity, service without self-involvement (Anasakti), reverence for the holy, love, to mention only a few. In other words, the need for building up character is far greater today in the complexity of a modernised society than it ever was in the simple life which the traditional ones generally offered to their members. The overall conclusion is thus inescapable: the content of education has to be continually deepened if education is to deliver goods and if the society is to be persuaded to invest

adequately in it.

69. Such deepening of the content is possible only if the competence of the teachers goes on continually increasing which is the third, and probably the most significant, aspect of the problem. The modern developments in education with their far-flung ramifications in all sectors of life and their highly complicated techniques which arise from the continual deepening of content are making ever-increasing demands on the teachers in terms of general education, professional training, and character. There is, therefore, an attempt in all countries where the significance of the problem is adequately realised, to find the best men available and to place them in charge of the education of the younger generation. In other words, the care and upbringing of the next generation is being entrusted, more and more, to the best representatives of the present generation so that the quality of education improves with time. On the other hand, the developing countries present an entirely different picture. Here, the remuneration and other conditions of service offered to teachers are so unsatisfactory that it is only the persons who have nothing better to do (subject to a few noble exceptions) that are generally attracted to the teaching profession. The care and upbringing of the rising generation is thus entrusted, more and more, to the weakest sections of the present generation. This can only create a vicious circle which will lead, at no distant date, to disaster. The Commission will have to examine this problem and recommend policies which will take us out of the unhappy situation in which we find ourselves at present.

XIII - SOME GENERAL CONSIDERATIONS

70. We started this discussion by the statement that the national system of education is one which assists the nation

to realise its national goals or to meet successfully the challenges that face it from time to time. On this basis, we identified ten great principles or programmes which should guide the reconstruction of an educational system which, at present, is 'national' only in a purely descriptive sense, viz., (1) democracy; (2) secularism; (3) the development of Hindi as an official language of the Union; (4) economic development; (5) the adoption of science and technology; (6) cultural renaissance; (7) national integration; (8) socialism. (9) equality of educational opportunity; and (10) pursuit of excellence, and discussed their implications for educational reconstruction with reference to the immediate future. The foregoing discussion, therefore, may be taken as indicating both the short-term and long-term topical objectives of educational reconstruction (which are to be treated as a supplement to the absolute objectives of education) as well as indicating the broad policies that should underlie formulation of a perspective of educational development spread over the next 10-15 years. It is realised that the discussion, which is more like an attempt at thinking aloud rather than putting forward a well-considered or rounded off thesis, has very severe limitations. Not every national goal or need has been identified nor have all the educational implications of each identified goal or need been spelt out. Besides, several of the issues raised here are controversial and the position adopted in the discussion on each of these issues may not represent the best choice possible. In spite of the consciousness of all these limitations, I have ventured to prepare this paper merely to serve as a basis of discussion in an area which will need the closest attention from the Commission. The issues raised here are of fundamental importance.

Our discussions may well begin with these problems so that we have adequate time to pursue the several issues raised here in all their ramifications. We will have to return to these discussions every now and then to check our bearings as we get along. All the different task forces to be set up by the Commission will have to accept the decisions of the Commission on these issues as fundamental guide-lines for their work. As the work of each task-force gets completed, we will have to return to them again to see that the finalised recommendations in each sector harmonize with the general consideration here adopted. Finally, in their most finished form, the Commission's findings on these issues will go into the introductory chapter of its Report which would inspire all that follows and also gather all its proposals in the different sectors or fields of education in a unified whole.

A NATIONAL SYSTEM OF EDUCATION

In the preceding paper, we tried to define the 'topical' objectives of education which, taken together with the 'absolute' objectives, form the 'soul' of the national system of education. In this and the next paper, we shall try to clothe this soul with a 'body', i.e. to interpret these objectives of educational development in terms of institutional organisations, the curricula (inclusive of the techniques of teaching and evaluation), teachers, provision of essential physical facilities, enrolments at various stages and in different types of educational programmes, student-aid and welfare, administration, strategy of development and finance.

2. In the first three plans, our achievements have been mainly quantitative although, even in this sector, we have still a long way to go. Our main failure has been the inability to raise standards to a level necessary for the proper development of the country and to integrate the different stages of the educational system with one another or the educational system as a whole with the needs of social, cultural, political and economic development of the nation. What we have to attempt in the next three plans, therefore, is a still larger expansion of the educational system combined with an intensive effort to raise standards. Of these two programmes, the second obviously needs a larger emphasis. It must be remembered that quality and quantity in education are related in a rather peculiar manner. Expansion generally leads to dilution of quality which, in its turn, creates conditions favourable to still further expansion. Hence greater expansion follows and quality is diluted still further. A vicious circle is thus established very soon, as in our midst today. On the other hand, an improvement in quality tightens several belts and acts as a damper on reckless expansion. Consequently, expansion is

controlled which, in its turn, creates conditions favourable to a still further increase in quality. The only way to break this vicious circle of continually deteriorating standards and to get into a period wherein a continuous improvement in quality is ensured, is to make a large and intensive effort, spread over a short span of time, to improve standards. It is, therefore, suggested that in the next two Plans, our attempts should be mainly directed to secure this qualitative 'take-off'.

3. This is possible only if we take action on the following lines :-

(1) to define the objectives of the educational system to include, not only the acquisition of knowledge, but also the building up of skills, interests, attitudes and values which would enable the rising generation to participate joyously and effectively in the great adventure of national reconstruction;

(2) to lengthen the duration of the school course to 12 years/as to reach the standard of the old Intermediate at its end and also to raise the standard of the B.A. (Hons) course to the present M.A.;

(3) to reorganise the entire curricula at the school and collegiate stages and to adopt newer and better techniques of teaching and evaluation;

(4) to secure good teachers through a programme of improving their remuneration and old-age benefits, improvement of general education and professional training (both pre-service and in-service);

(5) to provide essential physical facilities needed for good education, including the provision of necessary educational literature and teaching aids;

(6) to control the enrolment at the different stages of education and in different types of educational institutions in accordance with the capacities and aptitudes of pupils

- and the requirements of the national economy;
- (7) to develop suitable programmes of student-aid, and welfare;
 - (8) to reorganise the educational administration to meet the requirements of the enlarged and improved programme of education which will have to be implemented in the next three plans;
 - (9) to adopt the necessary priorities and a proper strategy of development; and
 - (1) to raising the necessary funds required for the programme through the collaboration of the Central and State Governments, local bodies and the public.

It is these aspects of the problem that would be discussed in some detail in this paper and the next. It may be emphasized that the object of this discussion is merely to raise significant issues, to identify problems and not to provide solutions.

4. I. PATTERN OF SCHOOL AND COLLEGE CLASSES

4. Standard to be Attained at the First Degree

State: The most fundamental weakness of the Indian educational system at present is that its standards do not compare favourably with those of the advanced countries. This becomes obvious in the universities because most of our undergraduate work really belongs to the school stage and it is our post-graduate work or the master's degree that is comparable with the undergraduate work or the bachelor's degree in advanced countries. Our colleges, therefore, do a good deal of work that ought to be done in secondary schools and our

secondary schools, in their turn, do a good deal of work that ought to be done in elementary schools. To remove this basic weakness should be the central point in the programme of qualitative improvement to be taken up in the next three plans and it is, therefore, suggested that, by the end of the fifth Plan, the standard to be reached at the end of the school stage should be the old Intermediate standard (which was generally reached at the end of the thirteenth year) and that, by the end of the sixth Plan, the standard to be reached at the end of the B.A. (Pass) course should be equal to the first year of the present M.A. course and that at the end of the B.A. (Hons) course should be equal to the entire course for the present M.A. examinations

Such a decision would secure two significant results:

(1) Standards in higher education are really international. This decision, which would make our university standards comparable to those of other advanced countries, would make our elite more competent, self-confident and creative.

(2) It would, of course, necessarily improve standards in education. But what is more important, it would set into operation forces which will tend to improve the quality of education continually and take us, once for all, out of a vicious circle we seem to have fallen into.

5. Total Number of Years Required to Take the First Degree: This programme has a very large number of implications. The first refers to the total duration of the school and college courses or the number of years required to take the first degree. It must be remembered that, in Western countries, the time required to take the first degree is at least fifteen years and sometimes, even sixteen years. If we want to reach a comparable standard, we shall have to provide an even longer period because the rate of learning is generally slower in our educational system because (1) the comparatively poorer home background of the vast majority of our students, (2) the generally lower qualification of teachers, (3) the inferior standard of physical plants, curricula and teaching techniques, (4) shorter academic years (in terms of hours of institution per year), and (5) generally weaker motivation of our standards and the lower standard of student aid and welfare we provide. But even if this is not possible and we also assume that we shall be able to reduce all these causes of inferiority to the minimum, the least we can do is to provide the same period of time to take the first degree, i. e. fifteen years. If it goes below this level, the standards would be irretrievably poor and no jugglery in words will improve the situation.

6. The present position in India is that Assam provides a 16-year course upto the first degree; seven States - Jammu and Kashmir, Madhya Pradesh, Mysore, Punjab, Rajasthan, Uttar Pradesh and West Bengal - provide 14-year courses; and the remaining seven States - Andhra Pradesh, Bihar, Gujerat, Kerala, Madras, Maharashtra and Orissa provide 15-year courses.

This recommendation, therefore, has implications only for the seven States in the second group. The problems are, not only financial, but also social, psychological and political. A major task for the Commission would, therefore, be to ascertain the reactions of these seven States to this proposal, to work out all its implications in terms of men and money, to visualize a phased programme of implementation and to formulate the consequential and inescapable proposals for central aid.

7. The Frontier War: So far, it is smooth sailing. There is a general agreement on the issue that the minimum period required for taking the first degree should be raised to 15 years at least. Even those States which provide a 14-year course at present do not object to it in principle; they only plead financial inability and ask for liberal Central assistance. But once this preliminary issue is over and one starts dividing the total period of 15 years between the school and the university, many complicated problems are immediately thrown up. The first ten years are everywhere regarded as within the province of the school and similarly, the last three years are also regarded everywhere as being within the province of the University. But in so far as the eleventh and the twelfth years are concerned, the situation is chaotic. The details of the existing pattern of school and college classes in the States and Union Territories will be found in Annexure I. Assam, with its 16-year course for the first degree, stands in a class by itself. In the State of Madhya Pradesh, the twelfth year does not exist, but the eleventh year is always in the school. In the States of Jammu and Kashmir, Mysore, Punjab, Rajasthan and West Bengal also, the twelfth year does not exist; but the eleventh year may be in the Higher

Secondary School or in the University as P.U.C. In the States of Andhra Pradesh, Bihar, Gujerat, Madras, Maharashtra and Orissa, the first eleven years are in the school and the twelfth year (except in a few higher secondary schools) is almost always with the University as P.U.C. In Kerala, both the eleventh and twelfth years are exclusively with the University and in Uttar Pradesh, they are both exclusively with the school (the main weakness here is the two-year course for the B.A. degree which will have to be increased to three). There is no unanimity as yet on the ultimate solution of the problem and there are equally strong protagonists for all the three possible solutions: (1) to give both years to the Universities; (2) to give both of them to the school; and (3) to divide them equally between the school and the University. A frontier war is thus on the full swing. It is older than the Chinese war, is fought on a much longer frontier and with even greater vehemence.

8. The main arguments in support of each of these three proposals may be briefly recapitulated. The work to be done in classes XI and XII is essentially that of a school; and the students attending it (generally between the ages of 15 and 19) are also of the school age and not mature enough to benefit by the studies at the university level. Prima facie, therefore, there is a very strong case to include both these years in the school stage.

9. At the other extreme is the position taken in Kerala, where both these years are in the University (as a two-year P.U. Course). The main arguments advanced in support of this proposal are :-

(1) Not all schools will be able to provide efficient

instruction for these two years. However, selecting secondary schools for such upgrading is very difficult, on account of political and social pressures, so that an easier and more effective way out of the situation is to add both the years to the University stages;

(2) The proportion of students passing from the secondary schools to the colleges is controlled to some extent if there is a Public Examination at the end of Class X and Classes XI and XII are provided only in colleges (which are necessarily few in number). In a situation like ours where there is a very great need to control admissions to Universities in some way or the other, this pattern of school and college classes is both helpful and appropriate.

(3) It is found that qualified people with post-graduate or research degrees, who are needed to teach in Classes XI and XII, are generally unwilling to work in secondary schools, even if the pay scales offered are equal to those of lecturers in colleges. In fact, such persons very often prefer to work in colleges even on lower salaries, if need be. The inclusion of Classes XI and XII in the school stage, therefore, will create immense difficulties for getting suitable staff; and, in its absence, the standards would necessarily go down.

(4) People are accustomed to pay fees at a sufficiently higher rate for sending their children to colleges. But at the secondary stage, fees are low and the demand for free student-ships is very great. The inclusion of the Classes XI and XII in the school stage, therefore, increases the financial liability of the State very considerably.

10. In the large majority of the States, the school now covers a period of eleven years and the twelfth year is usually located in University. In all these areas, there is a great resistance to the transfer of the

some of the arguments advanced in this connection:-

- (i) The problems relating to the difficulty of obtaining suitable staff, levy of fees, and increased cost to Government are argued here also on lines precisely similar to those given in the preceding paragraph.
- (ii) Much greater stress, however, is placed on the difficulties involved in down grading a large number of existing schools (with eleven classes) to ten class schools. It is obvious that no problem arises if an existing school with Class XI is upgraded to Class XII. But such schools would be few. By and large, the majority of schools would have to be downgraded to Class X and, in all such cases, there would be a strong protest from the local people who would be losing an existing privilege. It may, therefore, even be impossible to carry out this reform, unless every secondary school is upgraded to the higher secondary stage - which is neither desirable nor feasible.
- (iii) There is also a good deal of opposition in these areas to the incidental proposal of holding a public examination at the end of the tenth class so as to convert classes XI and XII into a distinct stage. It is argued that the examination at the end of class X will be worse than useless because it will release from schools a large number of students who will be comparatively less educated and younger than those who now come out after class XI.

11. The problem gets further vitiated by two complicating factors. The first refers to the age of admission, either to the primary school or to the university. At present, children can be admitted to primary schools at various ages - from 4 to 6. As the duration of the school course is often 10 years only, very young children of 14 or 15 are often admitted to universities. It is, therefore, claimed that we should fix, in addition to a uniform duration of the school course, a uniform minimum age of admission to primary schools as well as universities. The most favourite proposals are two. The first prescribes the age of admission to primary school as 5 plus, a twelve year school course, and seventeen plus as age of admission to universities. The second keeps the duration of the school course at twelve years but suggests the ages of 6 plus and 18 plus for admission to primary schools and universities. There is also a third view which would fix only the age of admission to universities and the duration of the school course so that the age of admission to primary schools is fixed indirectly within a narrow range.

12. The other complicating factor is that the manner in which the total period of school life would be broken up into different stages - primary, middle, secondary and higher secondary - is also make a point at issue while discussing its total duration. For instance, the existing pattern of school classes is extremely varied as the following data will show:

	Primary	Middle	Secondary	PUC	Higher Secondary
Andhra Pradesh	5	3	3	1	4
Assam	5	3	4	1	5
Bihar	5	2	4	1	5
Gujarat Maharashtra(c)	-	7(a)	4	1	-

	Primary	Middle	Secondary	FUC	Higher Secondary
J&K; Punjab; Rajasthan; West Bengal	5	3	2	1	3
Kerala	4	3	3	1	-
Madhya Pradesh	5	3	-	-	3
Madras	5	3	3	1	-
Mysore	4	3	3	1	4
Orissa	5	2	4	1	5
Uttar Pradesh	5	3	2	-	(b) 2

- (a) Integrated primary and middle course; separate middle schools do not exist.
- (b) Refers to Intermediate Colleges.
- (c) Gujarat has no Higher Secondary schools at all. But Maharashtra has a few secondary schools which have come over to it from earlier State Governments in Vidarbha and Marathawada.
- (d) For details see Annexure I at the end.

It is often suggested that there is hardly any justification for this variety and that a uniform national pattern of school classes should be adopted in all parts of the country. Even if such a proposal were to be accepted, there is no agreement on what this national pattern should - some argue in support of the Uttar Pradesh Pattern (5+3+2+2) and others in favour of the Kerala Pattern (4+3+3+2). For various considerations, the second seems to be the better pattern, but there is no chance of any unanimous decision being reached on this issue in the near future.

13. The Commission will have to address itself to the problem of the pattern of school and college classes with all its implications. In the public mind, the concept of a national system of education

is closely tied up with the adoption of a uniform pattern of school and college classes in all the States and Union Territories. In the programmes of educational reconstruction which followed the report of the Secondary Education Commission, the reorganisation of school and college classes was posed as a major aspect of educational reform and discussed so often at all possible levels that most people cannot now think of any worthwhile programme of educational reconstruction does not include a reorganisation of the pattern of school and college classes. This subject would, therefore, be thrust upon the attention of the Commission, time and again, in the memoranda, representations, evidence, etc. It is, therefore, very essential that the Commission should discuss in detail the major implications of the problem and the tentative lines on which its solution may ultimately be attempted. Such a tentative decision would be of great use in trying to ascertain the reactions of the people affected and also in working out the details of the manner in which it would have to be implemented in the different conditions of each State and Union Territory. The following is suggested as a basis for consideration in this regard:-

(1) The Commission must indicate its preferred decisions on each of the issues involved which include -

- (a) age of admission to primary schools (6 years);
- (b) the total period required for taking the first degree (15 years);
- (c) the total duration of the school stage (12 years);
- (d) whether classes XI and XII should belong to the school stage or to the University stage (School stage);
- (e) the manner in which the entire period of the school stage would be divided into different stages - primary, middle, high school or higher secondary (4+3+3+2); and
- (f) the minimum age of admission to Universities (18 years).

(2) Even when the Commission indicates its preference to a particular pattern, it should also emphasize the point that the national system of education need not insist on a rigid uniform pattern of school and college classes to be adopted in all States and Union Territories and that it should permit some latitude to the local authorities to vary it according to local conditions. The Commission would, therefore, have also to indicate the minimum uniform features of the pattern of school and college classes which will have to be adopted in all parts of the country. These may include the following :-

(a) The total period required for taking the first degree should be at least 15 years.

(b) The total duration of the school stage should be 12 years and the standard to be attained at the end of that period should be equal to the old Intermediate standard. This should be more or less uniform throughout the country.

(c) The standard to be attained at the end of the B.A. (Pass) course should be equal to the first year of the present M.A. course and that to be attained at the end of the B.A. (Hons) course should be equal to that of the present M.A. course and that this target should be reached in all areas by the end of the Fifth Five Year Plan at the latest.

(d) There should be a public examination at the end of class X.

(e) Classes XI and XII of the school course should form a distinct stage and should be under the control of an independent authority which may be called the Board of Intermediate Examination (which may be the same as the Board of Secondary Education). These two classes may, however, be run either as the top classes of a higher secondary school, or in independent institutions to be called as Junior Colleges or Intermediate Colleges, or even as the lower classes attached to Degree Colleges.

(f) The minimum age of admission to Universities should be at least 17+ and preferably 18+.

Subject to these general principles, the State

Governments and the Union Territories should be free to arrange the system of school and colleges classes in accordance with the local needs and conditions. A self-contained paper on the pattern of school classes (on the assumption of a three-year degree course) as proposed for the future is given in Annexure II.

14. It would not, however, be enough merely to indicate our preference for a particular pattern and to lay down those minimum or essential features thereof which should be common to all areas of the country. What is even more important is to work out the details of the manner in which the recommended pattern would be adopted in each State and Union Territory; and these details should include all relevant issues of teachers, costs, preparation of a phased programme, etc. How crucial this step is will be seen from the fact that the programme of reorganisation of Secondary education has failed on the major ground that it was taken at a national level, as abstract considerations, without working out all its implications in terms of teachers, costs, etc., for each State or Union Territory. If a similar fate is not to await any recommendations which this Commission has to make, we will have to be careful to avoid this error. It is, therefore, suggested that the Commission should make up its mind fairly early on a tentative pattern of school and college classes. It should then work out all the implications of this pattern for each State and Union Territory and prepare some sort of a phased programme for its adoption therein. This programme and the implications could then be discussed with the Government concerned and the leading non-officials in the area. The discussions would be a practical test of the feasibility or otherwise of our tentative proposals and would enable us to revise them to the extent necessary before they are finalised.

15. Before this discussion is closed, it is necessary to give warnings of two pitfalls into which earlier recommendations have fallen and which we might do well to avoid. The first is that the value of a given reorganisation of pattern is not exclusively absolute in the sense that it resides in the pattern itself. It is very largely topical in the sense that it depends greatly upon the local conditions in which the reorganisation is made to operate. An illustration would make this clear. The national pattern recommended for elementary education is 5+3 i.e. five years of primary school and 3 years of middle school. This has not been accepted by Maharashtra and Gujerat as well as by some other States. There have been immense pressures to compel them to accept this pattern and these States themselves have lost considerable prestige with the powers-that-be for being too obtuse to see so good a thing. But what would such a reorganisation mean in Gujerat, for instance, which has a seven years' integrated course? It means the transfer of class VIII from the secondary schools (which are definitely better equipped and better staffed) to the elementary schools where conditions are very unsatisfactory. The net effect of this proposal, therefore, would be to reduce standards, which is exactly the opposite of what the reform seeks to do. The situation in Bihar is exactly similar. Here all basic schools (about 540) have an eight-class pattern and the others (about 30,000) have a seven-class pattern. There is a great demand from the protagonists of basic education that the eight class pattern should be made universal. This may or may not help basic education; but it will certainly lead to an immediate and large-scale deterioration of standards. The conclusion

is, therefore, obvious. We cannot think of a pattern only in the abstract and we shall have to see how it will look and work in the known situations that prevail in the different States and Union Territories.

16. There is a second warning. Even while admitting that the evolution of a national pattern in this regard is essential and has some advantages, we must not let our sense of proportion and over estimate the value of the proposal. After all, the pattern is only an external form of the educational system and relatively, it can never be so significant as the things that really matter - curricula, teachers or techniques of teaching and evaluation. Given the right conditions, it is possible to get better education under an eleven-year course organised on any pattern than, in the absence of such conditions, from a twelve-year course built up on the theoretically best pattern. It is obvious that this sense of proportion was lost in the implementation of the recommendations of the Secondary Education Commission. Here the problem of pattern was so greatly emphasised, and became so valued and essential a part of the reconstruction of secondary education that, in practice, it became equivalent to all the reconstruction of secondary education. The valuable aspect of the contents of the reform was thus lost sight of, with consequences which are too well-known to be mentioned here. We must also avoid this second, and even greater, pitfall.

17. In view of the significance of this issue, it may be worthwhile to quote our experience in a parallel field - the reorganisation of the States. At one time, so much passion was put into this idea that thousands of people believed it to be the panacea for all the social, political and economic ills of the

Country. Now that it has been done, we realise, to our sorrow, that it has not solved a single social, political or economic problem and has created several others to which we have no answer at present. In fact many persons who were, at one time, strong champions of the reorganisation of States are now feeling that it would have been better if the entire programme had been postponed for twenty years. We should learn a lesson from these developments. During the second and third Plans, we have wasted a good deal of money in the name of reorganisation. We should at least prevent the recurrence of this waste in the Plans for tomorrow. This does not, of course, mean that we should not think of reorganisation at all. Some reorganisation is essential and inescapable. But we should treat it in its proper context and ensure that it does not make us forget to put the first things first.

II. Curricula and Techniques of Teaching and Evaluation

18. It may be pointed out that the lengthening of the duration of the total period required for taking the First degree to 15 years is only the first and probably the simplest of the implications of our basic proposal to raise the status of the B.A. (Hons.) degree of tomorrow to the M.A. degree of today. A far more significant implication is the thorough revision and upgrading of all curricula - both the school and college stages - and corresponding changes in the techniques of teaching and evaluation.

The pattern of school and college classes is merely the skeleton of the educational set up. It is the curricula and techniques of teaching and evaluation that clothe it with flesh and blood.

19. Objectives of the Revision : A preliminary observation is essential. When the goal of the proposed qualitative 'take off' is stated to be the equating of the present M.A. degree with the proposed B.A.(Hons.) degree, it is mainly the 'knowledge' content of education that is referred to. But education does not mean the mere acquisition of knowledge. It has two other and more significant implications, viz., the teaching of skills and the building up of interests, attitudes and values (or the building up of character). The system of education we have inherited was built up essentially for imparting knowledge. Even in this limited sphere, it is not able to deliver the goods because, in the present situation of a rapidly expanding scientific knowledge, we need an educational system which will teach, not only a good deal more in the existing span of education, but which will have such built-in mechanisms as would enable it continually to teach more and more within the given span of school and college life. With regard to the other two aims, however, the situation is much worse. These aims never figured prominently in the educational system. But not much harm was done when all that was expected of an educated person was to speak and write English and, by accepting a job under the Government, to act as an intermediary between the imperial authority and the people. But as soon as the size of the output of the educational system began to outgrow the available jobs under Government, as happened somewhere about 1921, the weaknesses of the system began to come to the fore. With the attainment of independence, what we expect to come out of the educational system is youngmen and women who, besides being well-informed and imbued with a love of knowledge, will also have those qualities which

will enable them to participate joyously and successfully in the great adventures of national reconstruction. In this situation, the building up of skills and character becomes even more important than acquisition of knowledge; and these two aims will, therefore, have to be added to the objective of deepening the knowledge content of education when the wholesale reorganisation of curricula and techniques of teaching and evaluation is taken up.

20. It will be no exaggeration to say that the problem of the content of education, as indicated by curricula (used in the broader sense of denoting all curricular and co-curricular activities) and techniques of teaching and evaluation is the centre of all educational reconstruction in the next three plans. By and large, this has been one of the most neglected aspect of educational development, due to several reasons. In the first place, there is no adequate expertise available. Neither the training colleges nor the University Departments of Education train experts in curriculum construction and allied problems. No education departments or educational institutions in India provide special posts for curriculum experts so that there is no demand for such expertise and a few persons who have received some training abroad in the problems of curriculum find that they have little scope for the use of their specialisation. Curriculum construction is neither regarded as an expert function nor is there any built-in machinery in the educational system to ensure that its needs are adequately looked after. Consequently, most of the revisions of curricula that have taken place so far are the result of

ad hoc proposals and have been carried out by ad hoc committees of officials and non-officials. At every revision, the curricula have tended to be bulkier because there is a general trend to crowd as much information as possible within the curriculum. There has been little study into the problems of curriculum and this is a sector of education where research has hardly been undertaken. The Commission, therefore, will not only have to suggest an immediate revision of curricula, but should also examine how research in curriculum construction can be organised, how the expertise for the task would be trained and how a built-in mechanism can be created under which curricula would be adequately and continually revised, both at school and college stages, to keep pace with changing conditions.

21. Some Problems to be Faced: Of the various problems that will have to be faced in this context, the following are the most important as they cut across more than one or all stages of education and will have to be dealt with comprehensively for the educational system as a whole:-

(1) The Problem of Languages: The situation in India has inevitably become trilingual because we have to study three languages - mother-tongue, Hindi for national purposes in non-Hindi areas and a modern Indian language (other than Hindi) in the Hindi areas as a balancing factor, and English for international purposes. This implies, not only three languages but, in most cases, also three scripts. For the linguistic minorities, a fourth language is very often required; and for cultural purposes, there is a great demand that the classical languages should also be taught. A child is, therefore, required to study a minimum of three languages and, in

some cases, as many as five. At the middle school and secondary stages, about 45 per cent of the time of the students is taken up by the study of languages and this affects, not only the study of other subjects, but even the study of the languages themselves. Besides, there are a large number of problems and controversies involved, especially with regard to the teaching of English and Hindi. At what stage is the study of English to be introduced, what are the methods to be used in its teaching, how much time should be devoted to it in the school and college time-table, what is the standard of attainment to be reached at various stages, what should be the precise objectives of English teaching - full mastery over the language (inclusive of comprehension and expression), study of literature, or mainly comprehension or a suitable combination of all these, how are teachers of English to be prepared, should there not be a uniform national policy for the teaching of English, these and a host of other similar questions are still subjects of controversy and await solution. The problems regarding Hindi are similar, in so far as non-Hindi areas are concerned. But here the issue gets mixed up with the three-language formula and the South refuses to make progress with Hindi because the North does not implement this formula in the proper spirit. The problem is made still more difficult by the political considerations that the non-Hindi group would not like to give any linguistic advantage to the Hindi group. In fact, even in the

* Of great relevance and significance in this context is the proposal to adopt a common script for all Indian languages - either Roman or Devnagari - so that the burden of learning scripts is reduced to one or two instead of three or four as at present.*

teaching of mother-tongue, there are a large number of problems such as the teaching of beginning reading with the Indian scripts which have not received adequate attention so far. In fact, it would be no exaggeration to say that the teaching of languages is the largest single area of difficulties in curriculum making in India - one hopes for, not one, but several University Departments of Linguistics or Education doing continuous research on all the problems connected with the teaching of languages; and yet how pained one feels to see the scanty attention these problems receive at present or have received in the post-independence period!

(2) The Problem of Training Hands and Fingers: Another serious problem in our curriculum is that it does not provide adequate training for skills in manipulating fingers or using hands. The reasons are purely historical. In the traditional system of Indian education, work with hands had no place because it was entirely a book-centred academic system meant for the preservation of ancient culture and most of the beneficiaries of the system did not have any manual work to do and even looked down upon it. The modern system of education was fashioned in the early years of the nineteenth century, on the pattern of the Grammar Schools of English which then provided only an academic education meant for a gentleman* from the point of view of the British people, the grammar schools, of the day which educated the aristocratic ruling classes of England were the models to be adopted because the objective of the Indian educational system was to

*Goldsmith defined a gentleman's education as that which 'teaches' the art of spending thousands without teaching the more useful art of earning a penny?

create an educated class in India which would act as intermediaries between the Government and the people; and the middle classes of Indian society or the upper castes also welcomed it because this education was similar to the traditional system and in keeping with their social ethos which prized 'brain' work and looked down upon 'hand' work. Some attempts to introduce hand-work or craft in the system began to be made in the early years of this century.

But they did not succeed. The scheme of basic education was the one large-scale attempt made so far to enshrine manual work in the school

curriculum. But owing to several reasons, it did not also succeed, so that our educational system still continues to be mainly book-centred and does not provide adequate scope for developing skills in working with one's hands. It is obvious that this situation will have to be changed in the educational reconstruction of tomorrow. The

socialist revolution is a combined revolution in production and cultural development of the people

and it would be possible only if the hands and the brain are made to unite in a supreme endeavour to

raise the standard of living of the people. Even from the individual point of view, it is necessary

to train fingers and hands in childhood as a means of developing the intellectual, aesthetic and

creative powers of the mind. A way has, therefore, to be found to introduce manual work as an integral

part of school education. Probably this could be done in two or three ways. At the primary stage

(age-group 6-10) a good deal of activities, hand-work or simple crafts like kitchen gardening, clay

modelling or paper work should be introduced. This would create an aptitude for manual work and provide some training in the use of fingers and hands. At the middle and secondary school stages, where white-collar attitudes are first developed, the teaching of a craft should be made compulsory and it should be taught well through specially trained teachers and with good equipment. At the university stage, a good deal of camping might be introduced where students will participate, not only in manual labour, but also in programmes of national reconstruction.

(3) The Teaching of Mathematics and Science: Our curricula, both at school and college stages, are often out of touch with modern life in the sense that they contain a good deal of material which ought not to be there and also do not include many modern concepts which ought to find a place in them. This is true of many subjects and more particularly of mathematics and science. In recent years, the teaching of science and mathematics has been revolutionised because eminent mathematicians and scientists have applied their minds to this problem. But the vast majority of our teachers are not even aware of these changes. The key to the modernisation of our society is in science and technology; and hence revolutionising the teaching of science in schools and colleges is the most important curricular reform needed at present.

(4) Coordinated Planning and Grading: Still another defect of the existing curricula is lack of proper planning and grading. The concentric method of teaching, which was in great vogue once, still has a great influence on the school curriculum which, in consequence, reduces the place of learning to a considerable extent. This did not prove to be irksome, in the past because the

standard of attainment prescribed were low. Now the situation is entirely different and we propose to do in 15 years, for the B.A.(Hons.) degree, what would otherwise require 16 or 17 years for the M.A. degree. Consequently there is not a minute to be lost and we have to see that the pace of learning is the fastest possible. Secondly, the curricula must be such that they provide adequate challenges to the average as well as to the gifted boys. The institution of pass and honours courses at the university stage ensures this; but there is nothing to correspond to this distinction at the school stage. We have, therefore, to think of introducing courses at two levels (O-level and A-level) for the examinations at the end of class X and class XII as well. This device will also help us to build up a mechanism within the system itself which would enable us to raise standards from time to time. Thirdly, the different items in the syllabus are not properly graded on the basis of scientific studies with the result that a good deal of class-time is often wasted either because the syllabus is too easy or too difficult to maintain interest and to provide adequate motivation to students. Finally, the curricula do not integrate adequately the different educational programmes of intellectual, artistic, cultural or physical education with the co-curricular activities so that the mere intellectual or 'knowledge' content of education tends to get isolated and unduly emphasized.

(5) Lack of Integration with Programmes of National Development: Another major defect of our

curricula is that they do not involve the students intimately in programmes of national reconstruction. What is now being attempted in the country through the five year plans is a great national undertaking unprecedented in the history of this country, and with hardly any parallels in the contemporary history of the world. At every stage of education, the students ought to be made to participate in this programme and enjoy the thrilling experience it provides. Such participation will strengthen the love of the motherland and build up attitudes of plan-mindedness which will be carried over into adult life, to the great advantage of national progress. Unfortunately, the educational system of today is isolated from this great national endeavour instead of being its nerve-centre. The average student, therefore, grows up mostly in ignorance of it; and even if he knows something about it, such knowledge does not amount to much in the absence of a deep emotional involvement and building up of attitudes and values which can come only through active participation.

22. In addition to these general problems which will have to be faced at more than one stage, there are also a few typical problems which affect each stage of education separately. For instance, at the pre-primary stage, the conditions are far from satisfactory because of the rival schools that compete with each other and because the vast majority of pre-primary schools, which seek neither aid nor recognition, are outside the purview of the State Education Departments. At the elementary stage, the main problem to be sorted out refers to the scheme of basic education which, in its present form, has not succeeded in practice and which will have to be modified in several important particulars. At the

secondary stage, the problem of diversification of courses to suit the capacities and aptitudes of the different types of children that now enter secondary schools has not yet been satisfactorily solved. Similarly, the problem of vocational education at this stage and of providing suitable education to these children who propose to enter different walks of life, rather than the universities, is still in the doldrums. At the university stage, most of the curricula will have to be drastically revised, partly to remove the type of difficulties pointed out in the preceding paragraph, but mainly because of the upgrading of the present B.A. (Hons) course to the M.A. While revising the curricula of the educational system as a whole, therefore, these and such other problems which refer specially to the different stages of education will also have to be kept in view.

23. School Hours and Vacations: Allied to this problem is also the question of the working days and hours of educational institutions at different stages. It is an open question whether our educational system now provides adequate occupation to students. The number of working days is probably smaller than it should be and the same may be said of the total working hours. Other things being equal, we can obviously get more out of the school system if the working period is longer. In a situation like ours, where the financial resources available are very limited and where the only way to secure rapid national development is for everyone concerned to work hard, there is a good deal to be said in favour of increasing the working hours and days of the

educational institutions at the different stages. Similarly, there is no arrangement at present to ensure that the students utilise their vacations to the best advantage. An examination of this problem would also considerably help in improving standards. These and allied factors will obviously affect the organisation of curricula very greatly.

24. Building up of Skills, Attitudes, Values and

Interests: But by far the most difficult problem to be faced in this sector is (1) to identify the skills, attitudes, values and interests which are necessary to be built up at every stage of education, and (2) to devise suitable programmes - both curricular and extra-curricular - for developing them in the rising generation. The first paper in this series was really addressed to the first of these problems and if the issues raised therein can be answered, we may be able to state precisely the specific goals which the educational system should place before itself. These may, for instance, include democracy; social, economic and political justice; secularism, national integration; rapid economic growth; socialism; cultivation of science and technology; cultural development; and defence and preservation of freedom. The second step is to determine the skills, attitudes, interests and values which will make it possible to create a new social order, based on these national goals; and the third step is to devise programmes of curricular and co-curricular activities at every stage of education with a view to building them up in the minds of the students. It is with reference to the second and the third of these tasks that very little work has been done so far and it is these that will have to be attempted in revising the curricula in future.

25. The same result may also be obtained through another exercise. We may, for instance, raise a question as to what kind of a life will the people of this country have to lead in the next 20-40 years, to deduce therefrom the qualities which will make them able to face adequately the tasks and challenges of this period, and then attempt to build up these qualities in the students through curricular and co-curricular programmes. This approach will lead to almost identical results with the earlier approach; and taken together, they may form a very effective guide for the proposed revision of curricula.

26. To attempt this task with adequate depth and scholarship is not easy and this is one area in which the Commission will have a large and a significant contribution to make. It is, therefore, suggested that these educational aspects of the problem should also be examined by the special study group or groups which may be set up by the Commission to examine the issues raised in the first paper in this series.

27. It will be seen from the foregoing discussion that the revision of curricula at all stages of education is one of the most important tasks to which the Commission will have to address itself. This exercise would be divided into two parts: (1) to state the broad principles on which the existing curricula need revision; and (2) to prepare tentative drafts of curricula which may be considered by the Central and the State Governments. I am afraid that in the earlier Commissions or Committees, it is only the first of these parts which was emphasized and the second was almost totally neglected. We should try to avoid this pitfall and also prepare

tentative curricula to illustrate the broad principles we have in view. These tentative curricula will serve a three-fold purpose. They would make our own understanding of the general principles clearer; they would be a far better guide for the reform of the educational system than a mere statement of general principles, however good; and they would also save one or two years time-lag in the implementation of our recommendations. It is, therefore, suggested that the Commission should set up as early as possible, a special Study Group to prepare tentative curricula for the entire school stage of twelve years, it being understood that the knowledge-content to be attained at the end of the course would be equal to the old Intermediate and that it will also try to build up the appropriate skills attitudes, interests and values in the minds of students at its various sub-stages. The National Council of Educational Research and Training can give very great assistance in this project and its Department of Curriculum, Methods and Textbooks may be requested to provide the secretariat for this task. It may be possible to get these tentative curricula ready in a period of 6-8 months. They will be of immense assistance in sounding public opinion and in finalising our recommendations.

28. At the university stage, the basic work in this respect has already been undertaken by the University Grants Commission. Review Committees are being appointed for all the different subjects and they are examining the existing curricula in the different universities and making recommendations for improvement. The reports of several Review Committees have already been published and others are in the process of preparation or publication. It may, therefore, not be necessary for the

Commission" to do anything on similar lines, although a critical study of the work that is now being done and the preparation of tentative curricula for B.A. (Pass) and B.A. (Hons) for a few important subjects may be of help.

29. Methods of Teaching: The revision of curricula is essentially the first step in the programme of raising standards. But obviously it is not enough. To ensure effective learning and higher accomplishment by students, it is necessary to supplement such a revision by the adoption of improved techniques of teaching and evaluation. Since our failures in both these fields are even greater than in the revision of curricula, the Commission will have to pay much greater attention to both the problems.

30. The primary responsibility for devising proper methods of teaching the curricular and co-curricular programmes at different stages of education and of conveying them to the body of teachers rests upon the University Departments of Education and the Teachers Colleges and Schools. Unfortunately, very little work has been done in this sector so far. Research in education is still in its infancy and it has hardly yet entered the field of methodologies of teaching. Our training colleges (which prepare teachers for secondary schools) have been content to adopt, generally with little or no change, the methods of teaching used in foreign countries, mainly U.K. and U.S.A. Even the minimum effort that is essential to adapt these methods properly to Indian conditions is not always made, to say nothing of devising new techniques suited to our conditions. For instance, the teaching of history

in India presents typical problems, because we want to develop secularism and the idea of a nationhood, whereas a mechanical teaching of the past history is likely to lead to exactly the opposite results. But no intensive attempt has been made to evolve a proper technique for teaching history. Similarly, the teaching of reading in Indian languages, where the script is difficult but problem of spelling does not exist, is vastly different from the teaching of reading in English where the script is easy but spelling becomes a formidable problem. The teaching methods of the advanced countries are meant for entirely different conditions, such as small classes, children coming from a fairly good home background, plenty of equipment being available in the schools, etc., while our teachers are required to work under exactly the opposite conditions. The imitation of techniques from Western countries, therefore, does not really help. Besides, there are several other problems to be faced. The 'Herbertian steps' have dominated our teaching techniques too long and too exclusively. The practical training which the teachers are given usually consists of a number of 'lesson units' which may instruct the prospective teacher in certain obvious 'tricks of the trade'; but it rarely gives him a grasp of the teaching-learning process as a whole. The desire to make things 'easy' for the children has been another dominating motive which has reduced the motivation of students and deprived them of the chance to develop those attitudes which are built up when a difficult situation is willingly faced and mastered. Bad as the situation at the secondary stage is, it is still worse at the elementary stage. The training schools and teacher-educators functioning at this level belong generally to a less-educated and less-equipped group.

The problems of this stage have received even less consideration from the educators in the Universities (who alone have the capacity to examine them) because of an artificial but almost watertight separation between the training of secondary and elementary teachers. The general level and competence of the elementary teachers is also much lower. For these and other reasons, the training colleges and schools do not train prospective teachers adequately in using proper techniques of teaching and even the little that is learnt, is generally not practised in schools because it does not have much relevance and feasibility in the actual conditions as they operate today. By and large, therefore, the training institutions have had very little impact on the teaching practices in educational institutions and have not succeeded in devising and popularising new and effective techniques of teaching which alone can help the teachers to put across the revised curricula and to raise standards. Nothing short of a revolution is needed in this respect. The Commission will, therefore, have to devote some time to the consideration of the manner in which the teaching techniques now in vogue in our educational institutions could be revolutionised.

This important problem may be specifically referred for consideration to the Task Force on Techniques of Teaching.

31. There is another important aspect to this problem.

The modern trend in the advanced countries is to make education more a 'learning' and 'teaching' process: that is to say, new techniques and material

are being discovered which give a greater initiative to the student to learn at his own pace, save a good deal of drudgery which is generally forced upon the teachers in the traditional teaching situation and, incidentally enable a teacher to look after a larger number of children (which implies an over-all larger pupil-teacher ratio, but does not necessarily imply larger class-sizes. The main factors which are responsible for these developments are two: (1) the desire to extend scientific technology to education; and (2) the rising cost of providing teachers and the difficulties of securing really able and good teachers which induce administrators to make teachers, and especially good teachers, assist in the education of as large number of students as possible. But whatever the reasons which are leading the advanced countries to adopt these techniques, they are of special application to the Indian situation, as they would enable us to pay the teachers better (as each of whom would be handling a larger number of pupils) without increasing the over-all financial burden inordinately. Unfortunately, very little attention has been paid so far to these techniques. It is, therefore, proper that the Commission set up a Special Task Force to identify those modern techniques of teaching which are particularly applicable to Indian conditions to suggest modifications in them, where necessary, and to prepare a concrete programme for their popularisation through the training institutions and for manufacturing the materials they need on an adequate scale and at a reasonable cost.

32. Evaluation: In the teaching process, objectives of education, curriculum (which includes the programmes intended to achieve these objectives), teaching techniques and evaluation (which tries to ascertain

the extent to which the objectives have been actually realised in practice) all go together to make an integrated whole. What is more important, evaluation occupies a key position in the whole process because, it tends to influence teaching techniques as well. This is all the more so in our traditions where examinations (which are the present form of evaluation) exercise such a dominating influence that they affect, not only teaching techniques, but also curricula, textbooks and attitudes of teachers, students and even parents. The evils of the examination system have been universally recognised; but unfortunately, very little has been done so far to develop a programme of scientific evaluation which would improve or replace them. This is a major deficiency to which the Commission will have to address itself if a determined effort is to be made to improve quality.

It is, therefore, suggested that the Commission may consider the desirability of appointing a Special Study Group on Evaluation at an early stage. It

may deal with evaluation at all stages - school and college; in the alternative, the study of evaluation at the collegiate stage may be entrusted to a separate Study Group working under the Task Force of Higher Education. In the paragraphs that follow, an attempt has been made to indicate some of the more pressing problems in this sector.

33. The examinations now conducted are of three types: (1) large external examinations which include public examinations conducted by the Universities, Boards of Secondary or Intermediate Education, the Education Departments, etc.; and (2) school examinations which form internal evaluation done by the teachers themselves. Between these two extremes, there

are a number of external examinations, or combination of external and internal examinations, at various levels. For instance, the Boards of Headmasters of Secondary Schools in a district often set common examination papers for their schools which, however, are evaluated internally. The elementary schools are often grouped together into convenient units (a circle, or a Tehsil, or even a District) for organising annual examinations through a combined form of external and internal examinations. These three types of examinations will have to be considered separately, as they present different sets of problems. It would also be convenient to discuss the problems separately for school and university stages. Let us first consider the elementary stage. Here, the external examinations are very few. An examination at the end of the primary school is conducted by a few States, but they form a small minority. More States conduct a public examination at the end of the middle school stage, which is voluntary in some areas and obligatory in others. All other class examinations are mostly carried out internally by the teachers themselves. But infrequently, the schools are grouped together for holding annual examinations through some combined form of external and internal testing with a view to securing great objectivity. In spite of all these arrangements, it may be said that the problem of evaluation at the elementary stage has been totally neglected so far. Where public examinations exist, they are conducted mostly on the traditional essay-type system. The internal school examinations or the external-internal examinations for groups of schools are also

similar in character, because neither the teachers nor the inspecting officers, who are concerned, have any inkling of the new techniques of evaluation. At this stage, it is the diagnostic and review type of tests that are far more important than attainment tests. But it is only attainment of a limited character (i.e. assimilation of information) that is tested in all evaluation, internal or external. It is at the elementary stage that we have the best possibility of using evaluation, not only as a measure of achievement, but as a tool for improving the teaching-learning process; and it is precisely this stage that the whole problem tends to get neglected. What is worse, the attitudes of students towards evaluation are already formed and, to a certain extent, hardened by the time they reach the secondary school so that the effect of new techniques of evaluation introduced at the secondary stage (which we are attempting at present) does not yield satisfactory results. One of the major programmes of reform would, therefore, be to introduce scientific evaluation at the elementary stage also. This will need considerable work with training schools for elementary teachers, the inspecting officers of elementary schools and the large body of elementary teachers themselves. This is a challenging programme which the State Institutes of Education, which have been recently set up, can undertake. One of the specific terms of reference to the Study Group on Evaluation, therefore, should be to make detailed recommendations regarding the manner in which scientific evaluation could be introduced at the elementary stage. The programme suggested in this context should cover school evaluation,

organised evaluation through groups of schools at the level of Tehsil or Talukas or even circles and the conduct of examinations where necessary, at the District level.

35. This last problem needs some elaboration. There is hardly any need for a public examination at the end of the primary stage. Wherever such examinations are conducted, it is desirable to abolish them. But it may be desirable to introduce a public examination at the end of class VII or VIII (the end of the middle school stage). This will serve as an attainment rather than a selection test and would thus be of great help in improving public motivation and instructional standards. If this proposal is accepted, such examinations can be organised only on the district basis and they will have to adopt some combined form of external-cum-internal test. The details of such a programme would have to be carefully worked out.

36. The problem of evaluation at the secondary stage is even more important. Fortunately, a good deal of spade work has been done in this sector by the Central Examination Reform Unit in the NCERT which was established in 1958. On the basis of this experience, it is possible to prepare a programme of action, spread over the next 10-15 years, for improvement of evaluation at the secondary stage. The broad features of such a programme can be indicated as follows:-

(1) External public examinations at the end of the secondary stage have come to stay. Even in the new set up, they will have to be held at the end of classes X and XII. A total abolition of these examinations is not possible, at least in the near future. A more realistic programme would, therefore, be to reform them from within. Our present tradition glorifies external examinations which thus exercise

a great influence, not only on teaching techniques, but also on curricula, textbooks and the attitudes of students, teachers and even parents. If reformed, therefore, these examinations, which are now a strangle-hold on all good teaching, will become an equally powerful instrument for raising standards and achieving desirable goals.

(2) These external examinations are now conducted by Boards of Education, Education Departments and Universities. The administrative arrangements made for this purpose vary greatly from place to place and the examining bodies show wide variations from one State to another in respect of composition, powers and responsibilities and operational arrangements for conducting examinations. It is the weakness of these arrangements that mostly hold up several good proposals of examination reform. A comparative study of all the existing administrative practices with reference to these bodies will highlight the problems involved and indicate the programme of reform to be undertaken. This will be an important point for the Study Group to examine.

(3) The internal reforms needed in these examinations are of several types:-

- (a) Improving the type of individual questions now asked;
- (b) Improving the nature of the question papers as a whole;
- (c) Devising better systems of scoring;
- (d) Testing, not only mere acquisition of knowledge, but also application of knowledge and development of certain skills.

- (e) Devising better administrative arrangements (including mechanisation) which have become essential owing to the immense increase in the number of students; and
- (f) Improving arrangements for invigilation, etc. which are now practically crumbling in certain areas.

37. The Rajasthan Board is the first Board in India to prepare and start implementing a comprehensive programme of examination reform. Similar programmes will have to be prepared for other States also. This is another important area which the Study Group should examine.

38. There are so many significant objectives of education which these examinations do not test at present and which they will also not be able to test (e.g. oral expression; physical fitness; building up of several important skills and of interests and attitudes, etc.). At present, the general position is that what is not examined is mostly ignored. Techniques of internal evaluation will, therefore, have to be evolved which will test all those important areas which cannot be tested through external examinations; and these will have to be so emphasized that teachers and students alike would pay adequate attention to them. School evaluation has thus a very important role to play, even more important than that of external examinations, especially because it can be used, not only as a test of achievements, but also for purposes of diagnosis and consequential treatment (remedial for the retarded and supplementary for the gifted pupils) and as a tool for the improvement of instruction, better pupil motivation and further achievement. This implies the adequate

training of teachers in evaluation; the improvement of the programme in training colleges, the orientation of inspecting officers; and the organisation of a central testing service (with head-office at the State level and branches in each District) for assisting the service. Though the programme is vast, it will have to be attempted on a priority basis.

39. There is a big gap between the external examinations which are conducted for the State as a whole and the internal examinations conducted by each school. It will not obviously be possible for any agency that we may create at the State level to reach every secondary school and to help it to develop a good programme of evaluation. It would, therefore, be advantageous to encourage the existing voluntary movement under which the secondary schools in a district often come together for developing a cooperative programme of internal-cur-external examination. Through such district level programmes, for which we may be able to provide personnel and guidance, it would be possible to improve the evaluation in all the participating schools and also to utilise the programme as a tool for the improvement of instruction. The details of such a programme will have to be worked out.

40. If this comprehensive programme is to be implemented, a suitable administrative machinery will have to be designed. This will include (a) the strengthening of the Examination Reform Unit in the NCERT which would act as a coordinating, personnel training and research agency whose main task would be to maintain standards all round; (b) creating a similar Examination Unit in each State, as a part of the Board of Secondary or Intermediate Education

and to charge it with the responsibilities of improving, not only the external examinations, but school evaluation also in all secondary schools; and (c) strengthening the State Institutes of Education to discharge similar responsibilities for elementary schools. It will also be necessary to train teacher educators and introduce the programme, with an adequate emphasis, in all training colleges. The details of all this programme of reconstruction need to be worked out.

41. At the university stage, the problem will have to be tackled on different lines. Here the scope for improving the external examinations is comparatively less while that for improving institutional evaluation is far greater. In spite of the importance given to the problem in the Report of the Radhakrishnan Commission, however, very little work has been done on the subject so far. The needs of the situation are two: (1) to evolve a broad policy which could be adopted by the universities and colleges, particularly at the undergraduate stage; and (2) the creation of an appropriate machinery, in the U.G.C. and also in each university to implement it.

These problems could be specially examined by the Task Force on Higher Education.

42. A more important idea which has to be developed at the university stage is to create more and more of 'autonomous' colleges which would be able to give their own degrees and which would thus pave the way for the ultimate elimination of external examinations. If the external examinations are ever to be abolished, the beginning will have to be made at the university stage and a suitable machinery for this will have to be evolved. This is another problem that needs attention.

ANNEXURE I

The existing pattern of school and college classes in all the States and Union Territories of India is given below:-

ANDHRA PRADESH

The State was originally composed of two regions - Andhra and Telangana - with two different patterns of School Education. In order to bring about uniformity, an integrated pattern of School Education was introduced in 1959-60 which will be completed in 1965-66.

I. The present pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance</u>	<u>Classes/Stds.</u>	<u>Duration (years)</u>
Primary	5+	I-V	5
Middle or Higher elementary or Lower Secondary	10+	VI-VIII	3
High	13+	IX-XI	3
Higher Secondary	13+	IX-XII	4
Pre-University	16+	---	1
First Degree	17+	I yr, II yr, III yr.	3

TOTAL DURATION FOR

FIRST DEGREE.....15 years

AGE AT COMPLETING FIRST DEGREE .. 20+

II. The re-organised pattern of Educational Structure, which when completed in 1965-66, will be as under:-

<u>Stage of education</u>	<u>Age of entrance (years)</u>	<u>Classes/Stds.</u>	<u>Duration (years)</u>
Integrated Elementary	5+	I-VII	7
High	12+	VII-X	3
Higher Secondary	12+	VIII-XI	4
Pre-University	15+	---	1
First Degree	16+	1 yr, II yr, III yr.	3

TOTAL DURATION FOR
FIRST DEGREE.....14 years

AGE AT COMPLETING FIRST DEGREE.. 19+

The State has taken a tentative decision not to adopt pattern II and to stick to pattern I.

ASSAM

The existing pattern of educational structure in the State is as follows :-

<u>Stage of Education.</u>	<u>Age of entrance (years)</u>	<u>Classes/Stds.</u>	<u>Duration (years)</u>
Primary	6+	A,B,I,II,III	5
Middle	11+	IV-VI	3
High	14+	VII-X	4
Higher Secondary	14+	VII-XI	5
Pre-University	18+	---	1
First Degree	19+	I yr, II yr, III yr.	3

TOTAL DURATION FOR
FIRST DEGREE..... 16 years

AGE AT COMPLETING
FIRST DEGREE..... 22+

BIHAR

The existing pattern of Educational Structure in the State is as under :-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Stds.</u>	<u>Duration (years)</u>
Primary	6	I-V	5
Middle	11	VI & VII	2
High	13	VIII-XI	4
Higher Secondary	13	VIII-XII	5
Pre-University	17	---	1
First Degree	18	I yr, II yr, III yr.	3

TOTAL DURATION FOR
FIRST DEGREE 15 years
AGE AT COMPLETING FIRST DEGREE .. 21

GUJARAT

The existing pattern of Educational Structure in the State is as follows :-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary (Integrated) Elementary	5+	I-VII	7
Middle	DOES NOT EXIST		
High	Not fixed Ordinarily 12+	VIII-XI	4
Higher Secondary	DOES NOT EXIST		
Pre-University	Not fixed Ordinarily 16+		1
First Degree	Not fixed Ordinarily 17+	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE 15 years.			
AGE AT COMPLETING			
FIRST DEGREE 20+			

JAMMU & KASHMIR

The existing pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6+	I-V	5
Middle	11+	VI-VIII	3
High	14+	IX & X	2
Higher Secondary	14+	IX-XI	3
Pre-University	16+		1
Intermediate	16+	I-yr., II yr.	2
First Degree (2-year course)	18+	III yr, IV yr,	2
(3-Year course)	17+	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE 14 years			
AGE AT COMPLETING FIRST DEGREE ... 20+			

KERALA

The existing pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	5½	I-IV	4
Middle	Not prescribed Ordinarily 9½	V-VII	3
High	Not prescribed Ordinarily 12½	VIII-X	3
Higher Secondary	DOES NOT EXIST		
Pre-University	Not prescribed Ordinarily 15½	---	1
First Degree	16½	I yr, II yr, III yr.	3

TOTAL DURATION FOR
FIRST DEGREE 14 years.
(since increased to 15 years)

AGE AT COMPLETING FIRST DEGREE.... 19½
(now 20½)

MADHYA PRADESH

The existing pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6+	I-V	5
Middle	11+	VI-VIII	3
High	DOES NOT EXIST		
Higher Secondary	14+	IX-XI	3
Pre-University	DOES NOT EXIST		
First Degree	17+	1 yr, II yr, III yr.	3

TOTAL DURATION FOR
FIRST DEGREE 14 years

AGE AT COMPLETING
FIRST DEGREE 20+

MADRAS

The existing pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	5+	I-V	5
Middle	10+	VI-VIII	3
High	13+	IX-XI	3
Higher Secondary	DOES NOT	EXIST	
Pre-University	16+		1
First Degree	17+	I yr, II yr. III yr.	3

TOTAL DURATION FOR

FIRST DEGREE 15 years

AGE AT COMPLETING

FIRST DEGREE 20+

MAHARASHTRA

The State is composed of three regions, namely, Western Maharashtra, Vidarbha and Marathwada where three different patterns of education exist, The present pattern of Educational Structure in each of these regions is given below:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary (Integrated Elementary)	5+	I-VII	7
Middle	DOES	NOT EXIST	
High	12+	VIII-XI	4
Higher Secondary	DOES	NOT EXIST	
Pre-University	DOES	NOT EXIST	
Intermediate	16+	I yr, II yr.	2
First Degree	18+	III yr, IV yr.	2

In Colleges affiliated to Bombay University only.

TOTAL DURATION FOR

FIRST DEGREE 15 years

AGE AT COMPLETING

FIRST DEGREE 20+

VIDARBHA

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6+	I-IV	4
Middle	10+	V-VIII	4
High	14+	IX & X	2
Higher Secondary	14+	IX-XI /	3
Pre-University	16+	—	1
First Degree	17+	I yr, II yr, III yr.	3

TOTAL DURATION FOR
 FIRST DEGREE 14 years
 AGE AT COMPLETING
 FIRST DEGREE 20+

MARATHWADA

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6+	I-IV	4
Middle	10+	V-VII	3
High	13+	VIII-X	3
Higher Secondary	13+	VIII-XI	4
Pre-University	16+	—	1
First Degree	17+	I yr, II yr, III yr.	3

TOTAL DURATION FOR
 FIRST DEGREE 14 years
 AGE AT COMPLETING
 FIRST DEGREE 20+

MYSORE

A uniform pattern of Educational Structure has since been introduced in all regions of the integrated State of Mysore. The existing pattern is as follows:-

<u>Stage of Education</u>	<u>Age of entrance</u> (years)	<u>Classes/Std.</u>	<u>Duration</u> (years)
Primary (Junior Primary)	6+	I-IV	4
Middle (Senior Primary)	10+	V-VII	3
High	13+	VIII-X	3
Higher Secondary	13+	VIII-XI	4
Pre-University	16+	_____	1
First Degree	17+	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE			14 years
AGE AT COMPLETING			
FIRST DEGREE			20+

ORISSA

The existing pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance</u> (years)	<u>Classes/Std.</u>	<u>Duration</u> (years)
Primary	5	I-V	5
Middle	10	VI & VII	2
High	12	VIII-XI	4
Higher Secondary	12	VIII-XII	3
Pre-University	16	_____	1
First Degree	17	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE			15 years
AGE AT COMPLETING			
FIRST DEGREE			20

PUNJAB

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	5+	I-V	5
Middle	10+	VI-VIII	3
High	13+	IX & X	2
Higher Secondary	13+	IX-XI	3
Pre-University	15	—	1
First Degree	16+	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE			14 years
AGE AT COMPLETING			
FIRST DEGREE			19+

RAJASTHAN

The existing pattern of Educational Structure in the State is as under:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	Not prescribed Ordinarily 5+	I-V	5
Middle	Not prescribed. Ordinarily 10+	VI-VIII	3
High	Not prescribed. Ordinarily 13+	IX & X	2
Higher Secondary	Not prescribed. Ordinarily 13+	IX-XI	3
Pre-University	15+	—	1
First Degree	16+	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE			14 years
AGE AT COMPLETING			
FIRST DEGREE			19+

UTTAR PRADESH

The existing pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	Not Prescribed. Ordinarily 6+	I-V	5
Middle	Not prescribed. Ordinarily 11+	VI-VIII	3
High	Not prescribed. Ordinarily 14+	IX & X	2
Higher Secondary	DOES NOT EXIST		
Pre-University	DOES NOT EXIST		
Intermediate	Not prescribed. Ordinarily 16+	I yr, II yr.	2
First Degree	Not prescribed. Ordinarily 18+	I yr, II yr.	2

TOTAL DURATION FOR

FIRST DEGREE 14 years

AGE AT COMPLETING FIRST DEGREE... 20+

WEST BENGAL

The existing pattern of Educational Structure in the State is as under:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6	I-V	5
Middle	11	VI-VIII	3
High	14	IX & X	2
Higher Secondary	14	IX -XI	3
Pre-University	16		1
First Degree	17	I yr, II yr, III yr.	3

TOTAL DURATION FOR

FIRST DEGREE 14 years

AGE AT COMPLETING

FIRST DEGREE..... 20+

NAGALAND

The existing pattern of Educational Structure in the State is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	5	A,B, I,II	4
Middle	9	III-VI	4
High	13	VII-X	4
Higher Secondary	DOES NOT	EXIST	
Pre-University	17		1
First Degree	18	I yr, II yr, III yr.	3
TOTAL DURATION FOR FIRST DEGREE			16 years
AGE AT COMPLETING FIRST DEGREE			21 years

ANDAMAN & NICOBAR ISLANDS

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6	I-V	5
Middle	11	VI-VIII	3
High	DOES NOT	EXIST	
Higher Secondary	14	IX-XI	3
Pre-University	DOES NOT	EXIST	
First Degree	DOES NOT	EXIST	
TOTAL DURATION FOR SECONDARY EDUCATION			11 years
AGE AT COMPLETING SECONDARY EDUCATION			17

DADRA AND NAGAR HAVELI

The existing pattern of Educational Structure in the Territory is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Stds.</u>	<u>Duration (years)</u>
Primary	5	I-IV	4
Middle	Not prescribed. Ordinarily 9	V-VII	3
High	Not prescribed. Ordinarily 12	VIII-XI	4
Higher Secondary	DOES NOT	EXIST	
Pre-University	DOES NOT	EXIST	
First Degree	DOES NOT	EXIST	
TOTAL DURATION FOR HIGHER SCHOOL EDUCATION			11 years
AGE AT COMPLETING HIGH SCHOOL EDUCATION			16 years.

DELHI

The existing pattern of Educational Structure in the Territory is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Stds.</u>	<u>Duration (years)</u>
Primary	5+	I-V	5
Middle	10+	VI-VIII	3
High	DOES NOT	EXIST	
Higher Secondary	13+	IX-XI	3
Pre-University	DOES NOT	EXIST	
First Degree	16+	I yr, II yr, III yr.	3
TOTAL DURATION FOR FIRST DEGREE			14 years
AGE AT COMPLETING FIRST DEGREE			19+

GOA, DAMAN & DIU

The existing pattern of Educational Structure in the

Territory is as follows:-

<u>Stage of Education</u>	<u>Age of entrance</u> (years)	<u>Classes/Std.</u>	<u>Duration</u> (Years)
Primary	6+	I-V	5
Middle	Not fixed. Ordinarily 11+	VI-VIII	3
High	Not fixed Ordinarily 14*	IX-XI	3
Higher Secondary	DOES NOT EXIST		
Pre-University	DOES NOT EXIST		
Intermediate	Not fixed. Ordinarily 17+	I yr, II yr.	2
First Degree	Not fixed. Ordinarily 19+	I yr, II yr.	2
TOTAL DURATION FOR			
FIRST DEGREE			16 years
AGE AT COMPLETING			
FIRST DEGREE			21+

HIMACHAL PRADESH

The existing pattern of Educational Structure in the

Territory is as follows:-

<u>Stage of Education</u>	<u>Age of entrance</u> (years)	<u>Classes/Std.</u>	<u>Duration</u> (years)
Primary	6+	I-V	5
Middle	11+	VI-VIII	3
High	14+	IX & X	2
Higher Secondary	14+	IX-XI	3
Pre-University	16+	_____	1
First Degree	17+	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE			14 years
AGE AT COMPLETING			
FIRST DEGREE			20+

LACCADIVE, MINICOY & AMINDIVIL ISLANDS

The existing pattern of Educational Structure in the Territory is as under:-

<u>Stage of Education</u>	<u>Age of entrance</u> (years)	<u>Classes/Stds.</u>	<u>Duration</u> (years)
Primary	6	I-IV	4
Middle	10	V-VII	3
High	13	VIII-X	3
Higher Secondary	DOES	NOT EXIST	
Pre-University	DOES	NOT EXIST	
First Degree	DOES	NOT EXIST	

TOTAL DURATION

FOR HIGH SCHOOL EDUCATION ... 10 years

AGE AT COMPLETING HIGH

SCHOOL EDUCATION 16 years

MANIPUR

The existing pattern of Educational Structure in the Territory is as follows:-

<u>Stage of Education</u>	<u>Age of entrance</u> (years)	<u>Class/Stds.</u>	<u>Duration</u> (years)
Primary	5+	A, B, I, II	4
Middle	9+	III-VI	4
High	13+	VII-X	4
Higher Secondary	13+	VII-XI	5
Pre-University	17+	—	1
First Degree	18+	I yr, II yr, III yr.	3

TOTAL DURATION FOR

FIRST DEGREE 16 years

AGE AT COMPLETING

FIRST DEGREE 21+

The existing pattern of Educational Structure in the Territory is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6	A, B. I, II, III	5
Middle	11	IV-VI	3
High	14	VII-X	4
Higher Secondary	14	VII-XI	5
Pre-University	DOES NOT	EXIST	
First Degree	DOES NOT	EXIST	
TOTAL DURATION FOR HIGH SCHOOL EDUCATION ...			12 years
TOTAL DURATION FOR HIGHER SECONDARY EDUCATION ...			13 years
AGE AT COMPLETING HIGH SCHOOL EDUCATION			18
AGE AT COMPLETING HIGHER SECONDARY EDUCATION ...			19

PONDICHERRY

The Territory has the following four kinds of secondary schools:-

- a) Tamil Schools (Ex-French Pattern),
- b) English Schools,
- c) Madras S.S.L.C. Type Schools, &
- d) French Schools.

The pattern of Educational Structure in the schools at (a), (b) and (c) above followed by PUC and First Degree is the same as obtaining in Madras State. The pattern is as follows:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	5+	I-V	5
Middle	10+	VI-VIII	3
High	13+	IX-XI	3
Higher Secondary	DOES NOT EXIST		
Pre-University	16+		1
First Degree	17+	I yr, II yr. III yr.	3

TOTAL DURATION FOR

FIRST DEGREE 15 years

AGE AT COMPLETING

FIRST DEGREE 20+

The pattern of Educational Structure in schools with French medium is as under:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6	Classe de 12e) Classe de 11e) Classe de 10e) Classe de 9e) Classe de 8e) Classe de 7e)	6
Secondary	12	Classe de 6e) Classe de 5e) Classe de 4e) Classe de 3e)	4
Pre-University	16	Classe de Seconde) Classe de Premiere)	
Intermediate	18	Classe Terminale ..	1
First Degree	DOES NOT EXIST		
TOTAL DURATION FOR INTERMEDIATE EDUCATION			13 years
AGE AT COMPLETING INTERMEDIATE EDUCATION			19

TRIPURA

The existing pattern of Educational Structure in the Territory is as under:-

<u>Stage of Education</u>	<u>Age of entrance (years)</u>	<u>Classes/Std.</u>	<u>Duration (years)</u>
Primary	6+	I-V	5
Middle	11+	VI-VIII	3
High	14+	IX & X	2
Higher Secondary	14+	IX-XI	3
Pre-University	Not prescribed. Ordinarily 16+	---	1
First Degree	Not prescribed.	I yr, II yr, III yr.	3
TOTAL DURATION FOR			
FIRST DEGREE			14 years
AGE AT COMPLETING			
FIRST DEGREE			20+

ANNEXURE II

PROPOSED PATTERN OF SCHOOL AND COLLEGE CLASSES

It is proposed that the future pattern of school and college classes should be primary (4 years), middle (3 years), secondary (3 years), intermediate (2 years) and degree classes (3 years) - making a total of 15 years for the first degree - 12 years in school and three years at the university.

2. The first change introduced in this pattern is that the primary school course has been reduced from 5 years to 4 years. This is recommended on several grounds:

(1) The idea that five years' education is necessary to ensure permanent literacy does not seem to be correct. The studies made on the subject so far show that a child will attain permanent literacy after an education of about three years, provided he leaves school some-time after the age of ten. This could be secured if the total duration of school is four years only. It may also be pointed out that the duration is actually four years in several States such as Maharashtra, Gujarat, Kerala and West Bengal and there is no reason to assume that the lapse into illiteracy in these States is greater than in others.

(2) The four class system simplifies the problem of the single teacher school to a very great extent.

(3) This pattern provides one more year of study for the second and the third languages (English and Hindi) which cannot be introduced earlier than the middle school stage without creating insurmountable administrative and financial problems.

(4) It transfers one year from the primary school (which is a poorer institution) to the middle school (which is a better institution) and thus helps in raising standards.

3. The most crucial point in this proposal is the interposition of a two-year course between the end of the ten-year school and the three-year degree course. It is claimed that

this has the following advantages:-

(1) The one-year P.U.C. does not serve any useful purpose beyond accustoming the students to some extent to the English medium of instruction. A two-year course would necessarily achieve this even better (so long as the English medium continued). In addition, it will be able to achieve a good deal of content-work.

(2) This will make it possible to select students who desire to go to the universities and train them intensively for it, while other students can be diverted to a good many vocational courses.

4. There should be a public examination at the end of class VII to ensure a certain minimum attainment on the part of those who propose to study further. Similarly, there would be a public examination at the end of class X. A third public examination would be held at the end of class XII.

5. In the four different stages visualised here, the curriculum would be based on four different principles - learning the basic tools, sound general education, initial specialization, and further specialization.

(a) In the primary stage of four years, the concentration will be on acquiring the basic tools of learning - the three R's. The teaching would not, however, be purely book-centred and academic as in the past. On the other hand, it would be made lively and interesting through the introduction of activities and simple hand-work such as kitchen-gardening, clay-modeling, paper-work, etc. A good deal of creative work music, painting and dancing - would also be introduced.

(b) The next six years would form a continuous course with slight differentiation between the first three years and the next three. The object of this period would be to give good general education in adequate depth. There need be no specialisation at this stage and all subjects should be compulsory for all students. These should include three languages (mother tongue, English and Hindi), Mathematics, a combined course of all the

Natural Sciences (Physics, Chemistry and Biology), Social Studies, Craft and Physical Education. The course should be planned at two levels; the ordinary level (which is compulsory for all students) and the advanced level (which will be optional) and which would cover separate disciplines like Mathematics, Physics, Chemistry, Biology, History, Geography, etc. A student will necessarily have to take all compulsory subjects at the ordinary level, but he may take as many subjects as he liked at the advanced level. For those who wish to go to the university, a pass in at least three advanced levels would be necessary.

(c) In the Intermediate stage which covers the next two years, initial specialisation should begin to start. No student should be required to take more than five subjects of which two will be languages (other than the mother-tongue) or the medium of instruction. The remaining three subjects should be selected from two groups - humanities and sciences - at least one being taken from each stage.

(d) At the degree stage, the students will go in for further specialisation for a period of three years. This will be followed by deep specialisation at the post-graduate and research stages.

6. All students in the age-group 6-10 should be enrolled at the primary stage by the end of the fifth Plan at the latest. In the age-group 11-13, the enrolment on a whole-time basis should be 50 per cent by the end of the fifth Plan and mostly those who complete class VII (about 80 per cent) would continue in classes VIII-X. For those children in the age-group 11-16 who cannot be enrolled in schools on a whole-time basis, part-time schools should be provided.

7. Students will be diverted into vocational courses at three levels. The first branching off will take place at the end of class VII; the second at the end of class X; and the third at the end of class XII.

(a) At the time of the first branching off, those students who will not be pursuing their studies in classes VIII to X will receive vocational education in the following types of institutions :-

(i) Junior Technical Schools: These provide a three-year training course and prepare students for the middle level jobs in engineering trades;

(ii) Trade Schools: These provide instruction in a number of vocations such as tailoring, pottery, agriculture, home science (for girls), etc;

(iii) Industrial Training Institutions: These will train students for a number of trades, both engineering and non-engineering;

(iv) Part-time courses: Part-time courses of various duration would also be organised for those children of the age-group 13-16 who would have joined some trade or profession after completing seven years of school, or even earlier.

(b) At the end of the ten-year school, those students who do not go in for Intermediate colleges will be provided with vocational training in the following types of institutions:-

(i) Teacher Training: These will provide a minimum training of two years (which may be increased to three years as soon as practicable).

(ii) Agricultural Schools: This will provide a two-year intensive course in agriculture. The training of Gram Sewak will come in this category.

(iii) Health Schools: This will provide courses to Nurses, Midwives, Health Visitors and such other para-medical personnel.

(iv) Polytechnics: These will provide a three-year course in engineering trades.

(v) Industrial Training Institutions: Some of the courses in the Industrial Training Institutions will be open only to those students who complete class X.

(vi) Art Schools: These will provide courses of various duration for different branches of art.

(vii) Home Science (specially for girls)

(viii) Commerce Schools: These will provide a two-year course in agricultural practice.

In addition, there will be a fairly large apprenticeship programme for those young persons who want to enter industry and a programme of part-time instruction for those who have started work and may not be in a position to continue their studies further.

(c) At the end of class XII, there will be a third bifurcation and students who will not go in for the three-year degree course in Arts and Science will be diverted to vocational courses of a collegiate standard. Programmes of part-time instruction including correspondence courses will continue at this level also.

The National System of Education in India.

III

ENROLMENT POLICIES

Who shall be educated - that is one of the major questions which has to be decided in planning^a/national system of education. The object of this paper is to study a few problems relating to student enrolments in Indian education in the post-independence period and to suggest some modifications in the existing policies. But before turning to the subject proper, it is necessary to examine some problems of general policy.

II

GENERAL CONSIDERATIONS

2. The traditional approach to the problem of student enrolments is very simple. The formal system of education begins at about the age of three with pre-primary education and continues, through the distinct stages of elementary, secondary and higher education, till about the age of 24 when a person is expected to receive the highest degree which a university can give. This long course of training, however, is not meant for all. It is only elementary education that is to be provided for all children on compulsory basis. Pre-primary education is meant for a few, while secondary and higher education also is similarly restricted and is to be provided, on a selective basis, to only a small proportion of the total population in the age-group. For the adults, their need hardly be any provision of educational facilities except to make up the deficiencies arising from the failure to receive appropriate type of education in childhood. For instance, campaigns for the liquidation of illiteracy could be organised for those adults who did not go to school in their childhood.

or who subsequently lapsed into illiteracy.*

3. These ideas of a very restricted provision of all but elementary education were inescapable in an underdeveloped economy which could only support a limited educational provision. But all the same, they were justified on philosophical grounds as well. For example, it was argued that education was preparation for life so that it was to be completed before 'life' or 'adulthood' began. This made adult education, except in the remedial sense stated above, inessential and the view was further supported by the very slow pace of social change which rendered a programme of adult education ^{almost} superfluous. Similarly, it was also argued that secondary and higher education was meant only for the talented students and that it would be wasted on all but a small fraction of total population in the age-group. But such rationalisations should not blind us to the fact that these views were essentially financial in origin: in the traditional societies which were predominantly agricultural and poor, it was not possible even to provide compulsory elementary education and the moderately industrialised societies of the nineteenth century could only afford to maintain a small number of high school or college graduates.

4. The situation in the highly industrialised societies of today is, however, entirely different. The old view that education, which is preparation for life, comes to an end with adulthood is no longer valid. Knowledge is advancing so fast and social change has become so rapid that there is now need for each person to educate himself

...3

*The Sargent Plan, for instance, provided pre-primary education to one child out of every twenty-one, compulsory elementary education to all children in the age-group 6-14, secondary education to one child in every five who complete the primary school (age-group 6-11), and higher education to one student out of every fifteen who complete the secondary stage. It also proposed a programme for the liquidation of adult illiteracy.

almost continuously. Education, therefore, is not preparation for life, but life itself. This has added great significance to the programmes of adult education which now mean, not remedial action for failure to receive education in childhood, but the continuous further education of those who are already highly educated. Similarly, the old concept of only a few being worthy of secondary and higher education is also obsolete. Intelligence depends, partly on inheritance and partly on environment, so that the number of persons who have the 'talent' to benefit from secondary and higher education goes on increasing from generation to generation as education spreads and standards of living tend to rise. There is thus no reason, on purely academic grounds, to restrict drastically the provision of secondary and higher education to a selected few. This view is further strengthened by two considerations. The first is the change that has taken place in the very concept and function of knowledge. In the past, knowledge had essentially a cultural connotation so that 'education' in general and secondary and higher education in particular were meant for a leisured class which was basically an 'unproductive' group - the word 'school' itself is derived from a Greek word which means 'leisure' - and which had to be supported by the toiling masses who received little or no education but who were really the 'productive' group in society. Today, knowledge has been so intimately geared to productivity and secondary and higher education have been so largely vocationalised that it is really the uneducated man who has become 'unproductive' and an economic liability while the highly education man has become the 'central resource' of society, and an abundant and increasing supply of highly educated people has become a pre-condition for progress, growth or even survival. The second

consideration which lends support to this need to expand secondary and higher education is the adoption of science and technology which is the key to the creation of an industrial society and which has set up a complementary relationship between education and economic growth. On the one hand, industrialisation needs very large groups of people who have received secondary and higher education - for they alone can do the complex tasks which such a society sets for its members - and, on the other hand, it also creates that affluence of economic goods and leisure which alone can make the provision of secondary and higher education on a very large scale financially possible. Consequently, the concept of a restricted provision of secondary and higher education to the gifted few has become obsolete and has been replaced by the new goal of secondary education for all and higher education for as many as possible.

5. If all these developments are put together, one realises what an 'educational revolution' has taken place between the 'traditional and poor societies' of the eighteenth century and the highly 'industrialised and affluent societies' of the present day. In the first, education was oriented to leisure and culture rather than to production and occupied only a small part of life. Its provision, even at the elementary stage, was restricted to a few while secondary and higher education was the privilege of a small parasitic class that lived on the crude labour of the ignorant and hard-worked masses. In the second, education has become production-oriented and coextensive with life, the entire population is continuously engaged in educating itself so that 'education' has become the most extensive and all-pervasive national industry, and not only elementary, but even secondary education is provided for all and higher education to an

increasingly larger band of young persons. India is an illustration of the first while U.S.A. is a good example of the second.

6. What are the implications of these developments for the immediate reconstruction of education in India (and especially for enrolment policies to be adopted) which is attempting to transform itself from a traditional, agricultural, rural and poor society into a modern, industrialised, largely urban and fairly well-to-do society within the span of a single generation? The first lesson is the need to relate education with productivity. If this is not done, and if educated people continue to be unproductive and parasitic, the spread of education will lead to an increase of poverty in the first instance and ultimately to a reduction in the provision of education itself. The second lesson is that the linking of education with productivity which is the characteristic feature of a modern industrialised society, is secured mainly by the adoption of science and technology and by (1) the development of research, and (2) the vocationalisation of secondary and higher education. It is true that each country will have to decide for itself how its education is to be oriented to production. But a comparative study of the problem will show that the difference in this respect from country to country or, in the same country, from one period to another, is merely related to the different types of researches to be undertaken or the different forms of vocationalisation of secondary and higher education and that the two essential features of the programme common to all countries and all situations are (1) the development of research, and (2) the

vocationalisation of secondary and higher education.*

The third lesson is that the policies of expanding enrolments at all stages of education are practicable

only to the extent the national economy develops. The

large expanding enrolments at the elementary, secondary and higher stages of education require two things:

(1) The State must incur a very large expenditure on education; and (2) The income of the average parent must also increase very considerably in order to enable him to feed and clothe his children and maintain them at school for a sufficiently long period. It is obvious that both these conditions would not be fulfilled unless there is a simultaneous improvement in the national economy. In other words, the economic and educational developments of a country have to progress side by side, each supporting the other.

7. An examination of the existing trends in educational developments in India will show that we are imitating or trying to imitate the modern highly industrialised and affluent societies of the West in respect of their present policies of enrolment at various stages and that we are attracted specially by the American developments in this sector. Our commitment to the provision of universal elementary education is absolute and has been embodied in the Constitution as a directive of State Policy. But even before we have realised it or are even within the distant sight of its realisation, we have committed ourselves to a programme of free education and open-door policy at the secondary stage. Simultaneously, we are committed to an open-door policy in higher education also and are further

..7

* In modern society, the major link of education to social structure is through the economy and this is a linkage of both stimulus and response. Contemporary educational organisations stimulate economic change through research and, in turn, they respond to economic change in carrying out the function of selection and training of man-power. - Jean Floud and A.H. Halsey in Education, Economy and Society, p.12.

committed to provide it as cheaply as possible and to as many as possible. There would, of course, have been no problems involved in this imitation of American goals if it had been accompanied by the three changes necessary for their successful adoption, viz.

(1) relating education to productivity, (2) development of research, and (3) vocationalisation of secondary and higher education. But this has not been done with the result that we have juxtaposed 'the enrolment policies of a modern, rich and highly industrialised society' on what still is a 'traditional, poor and agricultural' society. This creates several forms of malaise of which the most important are three:

(1) frustration due to the failure to realise accepted and widely advertised goals; (2) large-scale unemployment among those who have received the traditional type of secondary and higher education meant essentially for the 'gentlemen' of leisure and affluence; and (3) watering down of quality because the resources to support the educational system are far below the enrolmental strains that are placed on it. The four ways out of the situation are: (1) to abandon the policies of expanding enrolment; (2) to relate education to productivity and to vocationalize secondary and higher education; (3) to discover new techniques which would reduce unit costs in education without affecting essential quality so that larger enrolments in a fairly efficient system are possible despite the meagre resources available; or (4) a combination of one or more of these in some suitable manner. This is, therefore, one significant area in our educational planning, where, as Dr. Kothari, put it, the desired solution can only come through 'an expenditure of thought'.

8. There is still another aspect of this problem which merits attention, viz., the implications, for a strategy of educational development, of the need to telescope programmes of educational expansion and improvement. For instance, the new policies of expanding enrolments at all stages of education were adopted in the West slowly and progressively. England introduced universal elementary education between 1870 and 1918; the attempt to expand secondary education and to deepen its quality was first made with the Education Act of 1902 while the movement was taken to its logical conclusion and secondary education was provided for all, under the Butler Act, between 1944 and 1964; and finally the expansion of higher education would be attempted, in terms of the Robbins Report, between 1964 and 1980. In India, all these separate stages of development will have to be telescoped in the life-span of a generation and attempted together. The telescoping creates several difficult problems which arise partly from the tempo of the changes proposed and partly from the wide gap between the demand for educational development on the one hand and the stage of economic development reached on the other. There is very little guidance, in the history of advanced countries, for the solution of these problems because they were never required to face them. Nor will the solutions discovered by one developing country be necessarily applicable to another. Each developing country, therefore, will have to think and discover these solutions themselves. Obviously, they will include (1) large sacrifices in the sense of allocating a larger proportion of national income to education; (2) harder work on behalf of teachers and students; (3) provision of part-time education (inclusive of correspondence education) on an extensive scale; (4) discovery of

techniques which would make it possible to attain quality at a low level of cost; (5) selective approaches to the development of different institutions or sectors of education; (6) emphasis on education of quality being provided to the gifted students at least; or (7) any suitable combination of one or more of these. This is another area of educational reconstruction to which the Education Departments will have to address themselves seriously.

III

Enrolment by Age-Groups

9. With these introductory observations we can now proceed to the discussion of (1) the pupil/student enrolments in our educational system as they are at present, (2) the trends of development which they reveal, and (3) the problems which they create. We will begin this discussion with enrolments of pupils or students in the different age-groups, irrespective of the stage of education at which they may be reading.

10. Statistics of student enrolment in all types of educational institutions, classified by their age, are available for each year from 1949-50 to 1960-61. The usual classification adopted for age is (a) below 5, (b) each single year of age between 5-6 and 24-25, and (c) above 25. For purposes of convenience, the discussion in this paper is restricted to the age-group 5-24 (the enrolments in each single year of age being discussed separately) and the very small number of children below 5 years of age who are mostly enrolled in the pre-primary stage as well as the students of 25 years and above who are also very few will not be discussed here.

11. The total enrolment in all types of educational institutions in 1951 and 1961, classified according to each single year of age between 5-6 and 24-25, as well as its proportion to the total population in the age-group is given in the following table :-

Table No:1 Total Enrolments in the Age-Group 5-24 by single year of age

(Figures in Thousands)

Age	Total Enrolment of Pupils/Students				Proportion of Total Enrolment to Total Population in the Age-group			
	1951		1961		1951		1961	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
5-6	10,93	4,73	19,31	9,63	22.9	10.0	30.8	15.8
6-7	22,45	9,64	38,00	19,56	47.6	21.0	62.7	33.3
7-8	24,02	9,70	42,73	22,52	51.3	21.7	72.8	39.6
8-9	22,84	9,47	40,20	20,19	50.2	21.8	70.5	36.7
9-10	20,51	7,97	35,36	16,74	46.0	18.8	63.8	31.4
10-11	17,70	6,54	31,34	14,10	40.5	15.9	59.1	27.4
Total (6-11)	1,07,52	43,32	1,33,18	93,11	47.3	19.9	65.8	33.3
11-12	14,90	4,53	26,21	10,42	34.9	11.3	50.0	20.9
12-13	11,94	3,08	21,69	7,89	28.6	7.9	42.6	16.3
13-14	9,30	2,03	17,51	5,50	22.8	5.3	35.4	11.3
Total (11-14)	36,14	9,64	65,41	23,81	23.3	8.2	42.8	16.4
14-15	7,61	1,49	14,07	3,98	19.1	4.0	29.2	8.8
15-16	5,90	93	11,04	2,88	15.1	2.7	23.6	6.5
16-17	4,35	64	8,44	2,01	11.5	1.3	18.6	4.7
17-18	3,02	45	6,24	1,39	8.2	1.3	14.1	3.3
Total (14-18)	20,88	3,56	39,79	10,26	13.6	2.5	21.6	5.9
18-19	2,25	31	4,73	98	6.3	0.9	11.0	2.4
19-20	1,53	21	3,43	68	4.4	0.6	8.2	1.7
20-21	1,30	21	2,64	47	3.8	0.6	6.5	1.2
21-22	85	11	1,94	34	2.6	0.3	4.9	0.9
22-23	79	12	1,47	24	2.4	0.4	3.8	0.7
23-24	63	9	1,19	20	2.0	0.3	3.1	0.5
24-25	57	9	95	20	1.8	0.3	2.5	0.6
Total (18-25)	7,92	1,14	16,35	3,11	3.4	0.5	5.8	1.2

12. Let us first take the children below 14 years of age who are ordinarily expected to be at the elementary stage. It will be seen from the above table that, in the age-group 5-6, the total enrolment is very small. Even in 1961, it was only 19.31 lakhs of boys (or 30.8% of the population of the age-group) and 9.63 lakhs of girls (or 15.8% of the age-group). This is so because the age of admission to primary schools is generally six plus in most of the States. It will also be seen that the best enrolments we have been able to make so far in the age-groups 6-7 (62.7% for boys and 33.3% for girls), 7-8 (72.8% for boys and 39.6% for girls), and 8-9 (70.5% for boys and 36.7% for girls). It must be pointed out that, at this age, the child is not generally of much use to the parents for work at home (this is mostly true of boys, while girls do help the mother in a number of ways even at these early years). The parents are, therefore, not unwilling (or are even anxious) to send their children to schools in these age-groups as it simply means the transfer of a 'nuisance' from home to the school. But as soon as the age of about nine years is reached and the child begins to be useful at home for some work or the other, his attendance begins to fall, and reaches comparatively very low levels by the time the age-group 13-14 is reached. For instance, it will be seen from the above table that the enrolment of children in schools declines sharply from the age-group 8-9 (70.5% for boys, 36.7% for girls) to age-group 13-14 (35.4% for boys and 11.8% for girls). The enrolment is halved for the boys in this five-year period; and in the case of girls, the fall is much steeper and the enrolment is reduced to about one-third - due partly to the girls being more useful at home than the boys and partly to

early marriages or betrothals which are still fairly common in rural areas.

13. In the age-group 14-15 to 17-18 which corresponds broadly to the secondary stage*, the fall continues although it becomes a little less steep. In this period of four years, the enrolment for boys is again reduced to about half (from 29.2% in the age-group 14-15 to 14.1% in the age-group 17-18) and that of girls is almost reduced to three-eighths (from 8.8% in the age-group 14-15 to 3.3% in the age-group 17-18).

14. In the age-groups 18-19 to 24-25 which correspond roughly to the collegiate stage, the fall in enrolment is steeper than at the secondary stage. The enrolment of boys is reduced from 11% in the age-group 18-19 to 2.5% in the age-group 24-25 and that of girls from 2.4% for the age-group 18-19 to 0.6% for the age group 24-25. This is obviously to be expected.

15. If the enrolments in 1951 are compared with those in 1961, the trends in the growth of enrolments become obvious. For instance, at all stages of education the increase in the enrolment of girls is proportionately greater than that amongst the boys. For instance, in the age-group 6-11, the enrolment of boys has increased from 47.3 per cent of the total population to 65.3 per cent, while that of girls has increased from 19.9 per cent to 33.3 per cent; in the age group 11-14, the enrolment of

*It must be remembered that, owing either to a late start or to retardation, several students of this age-group are reading, not at the secondary stage, but at lower stages. This is also true of the next age-group which corresponds to higher education. This problem will, however, be dealt with in detail in a later section.

boys increased only from 28.8% to 42.5 per cent while that of girls has been doubled - from 8.2 per cent to 16.4 per cent; in the age group 14-18, the enrolment of boys has increased only from 13.6 per cent to 21.6 per cent while that of girls is more than doubled from 2.5 per cent to 5.9 per cent; and in the age-group 18-25, the enrolment of boys has increased only from 3.4 per cent to 5.8 per cent while that of girls has again been more than doubled - from 0.5 per cent to 1.2 per cent. This is a welcome sign and it shows that the gap in the education of boys and girls is being bridged, although some may like the process to be little faster, especially at the school stage.

IV

Enrolments by Ages and Grades

16. In the foregoing discussion, the enrolments in all types of educational institutions were considered only with respect to age and the general assumption made was that the enrolments in the age-group 6-14 relate to the elementary stage, those in age-group 18-25 relate to the university stage. Such an assumption would be correct if children of the age-group 6-7 only were enrolled in class I and if they progressed from class to class every year without any stagnation. In the Indian educational system, however, such an assumption is hardly justified. The children enrolled in class I belong, not only to the age-group 6-7, but also to several age-groups below and above it. In fact, the age composition of class I is so heterogeneous that the age composition in every higher class would also be equally heterogeneous, even if all children were regularly promoted from class to class and there was no stagnation. As it is, the extent of stagnation

itself happens to be very large so that, in the higher grades, the age-composition of the students becomes even more heterogeneous. It is, therefore, necessary to study the age-composition of the students in each grade or in every type of educational institution in some detail.

17. The following table shows the enrolment in a few selected school classes according to age-groups in 1961 and also the average age for each class:-

Table No. II Average Age in Grades I, IV, VIII, and XI
Enrolment in Grade

Age-groups	I		IV		VII		XI	
	Number	%	Number	%	Number	%	Number	%
5-6	26,64,947	20.1	492	0.0	-	-	-	-
6-7	42,91,489	32.4	21,166	0.5	-	-	-	-
7-8	32,22,787	24.3	1,82,193	4.0	231	0.0	-	-
8-9	16,80,693	12.7	7,03,546	15.3	3,337	0.2	-	-
9-10	7,79,094	5.9	11,47,494	25.0	31,055	1.4	-	-
10-11	3,87,518	2.9	11,01,566	24.0	1,45,895	6.6	39	0.0
11-12	1,51,996	1.2	7,14,779	15.6	3,62,216	16.3	1,004	0.2
12-13	48,877	0.4	4,18,864	9.1	5,42,722	24.4	5,744	1.2
13-14	14,738	0.1	1,92,493	4.2	4,83,505	21.8	24,985	5.0
14-15	4,541	0.0	73,966	1.6	3,16,754	14.3	54,854	11.0
15-16	1,118	0.0	25,440	0.5	1,81,366	8.1	89,595	18.0
16-17	298	0.0	7,298	0.2	88,655	4.0	104,049	20.9
17-18	309	0.0	2,373	0.0	39,233	1.8	91,983	18.5
18-19	34	0.0	684	0.0	16,526	0.7	58,765	11.8
19-20	28	0.0	183	0.0	5,905	0.3	34,845	7.0
20-21	28	0.0	77	0.0	2,004	0.1	18,723	3.8
21-22	4	0.0	20	0.0	544	0.0	8,218	1.7
22-23	-	-	18	0.0	172	0.0	2,811	0.6
23-24	-	-	12	0.0	80	0.0	1,196	0.2
24-25	2	0.0	12	0.0	73	0.0	453	0.1
Total	1,32,48,501	100	45,92,676	100	22,20,273	100	4,97,266	100

Average age for the class. 7.2 10.4 13.2 16.8

(in years)

18 It will be seen from the above tables that, owing to the failure to evolve a proper policy for fresh admissions to schools and the large prevalence of stagnation, the age-composition of every class at the school stage is very heterogeneous, and that there is a large proportion of pupils in every class who are both below and above the appropriate age for that class. For instance, the appropriate age for class I is 6-7; and yet the children in this age-group form only 32.4 per cent of the total enrolment in the class whereas they ought to form about 70-80 per cent! This is due to two reasons: (1) We do not make an attempt to enroll all fresh children to schools only in the age-group 6-7 so that a large proportion of children below and above this age are also enrolled; and (2) owing to the large prevalence of stagnation, many of those children who are enrolled at the appropriate age of 6-7 also stay on in the class till they are 8, 9 or even 10. Similarly, in class IV, the appropriate age-group is 9-10; but the children in this age-group form only 25 per cent of the total enrolment in class IV; the appropriate age for class VII is 12-13, but the children in this age-group form only 24.4 per cent of the total enrolment in this class; and in class XI, the children of the appropriate age-group (16-17) form only 20.9 per cent of the total enrolment in the class. There has hardly been any change in this picture during the last ten years. We are not even conscious of the problem and we have made no effort so far to improve the situation. It has to be noted that the present heterogeneity of age-groups in each class affects the standards adversely and that it is essential to make these classes homogeneous from the point of view of age as soon as practicable. To this end, we must make an intensive effort to restrict all fresh admissions to class I to the age-group 6-7 so that the children of this age-group

would form about 70-80 per cent of the total enrolment in this class. Secondly, we must also reduce stagnation to the minimum so that the bulk (70-80 per cent) of the children in each class at the school stage would also be in the age-group appropriate to that class.

19 Owing to the wrong policies of fresh enrolment and the large prevalence of stagnation, what happens in each class, also happens at each stage of education, and the total enrolment at any stage is not also confined to the age-group appropriate to that stage. This will be seen clearly from ^{and II.} the two tables given in Annexures I/ For convenience of discussion, the main points that arise from the statistics of 1961 may be listed as follows :-

(1) Of the total enrolment in the age-group 6-25 in classes I-V, that in the appropriate age-group, viz., 6-11 is 83.6 per cent for boys and 86.9 per cent for girls; that in the age-group 11-14 is 14.7 p.c. for boys and 12.3 p.c. for girls; that in the age-group 14-18 is 1.5 for boys and 0.8 per cent for girls; and that in the age-group 18-25 is 0.2 per cent for boys.

(2) Of the total enrolment in the age-group 6-25 in classes VI-VIII, that in the appropriate age-group, viz., 11-14 is 56.8 p.c. for boys and 60.7 p.c. for girls; that in the age-group 6-11 is 13.0 p.c. for boys and 14.2 p.c. for girls; that in the age-group 14-18 is 28.7 p.c. for boys and 24.4 p.c. for girls; and that in the age-group 18-25 is 1.5 p.c. for boys and 0.7 p.c. for girls.

(3) Of the total enrolment in the age-group 6-25 in classes IX-XII, that in the appropriate age-group, viz., 14-18 is 67.3 p.c. for boys and 72.4 p.c. for girls; that in the age-group 6-11 is 0.3 p.c. for boys and 0.2 p.c. for girls; that in the age-group 11-14 is 15.7 p.c. for boys and

15.0 percent for girls; and that in the age-group 18-25 is 16.7 per cent for 6 years and 12.4 percent for girls.

(3) Of the total enrolment at the university stage (general education), that in the appropriate age-group, viz., 18-25 is 67.2 percent for boys and 63.9 percent for girls; that in the age-group 14-18, is 32.6 percent for boys and 36.1 percent for girls; and that in the age-group 11-14 is 0.2 percent for boys.

(4) In institutions of professional education at the University stage, the picture is a little better. The enrolment in the appropriate age-group viz., 18-25 is 83.4 percent for boys and 82.1 percent for girls; and that in the age-group 14-18 is 16.6 percent for boys and 17.9 percent for girls.

(5) Of the total enrolment in the age-group 6-25 in the vocational schools, that in the appropriate age-group, viz., 14-18 is only 27.0 percent for boys and 29.7 percent for girls; that in the age-group 6-11 is 4.3 percent for boys and 7.0 percent for girls; that in the age-group 11-14 is 8.0 percent for boys and 10.0 percent for girls; and that in the age-group 18-25 is 60.7 percent for boys and 53.3 percent for girls.

(6) The comparison of the statistics of 1951 with those of 1961 shows that the picture has remained practically unchanged in the last decade.

20. The same motley picture can be seen if we take a cross section of the enrolments in the different age-groups and relate them to the various stages of education. For instance, in the age-group 14-18, most of the enrolment ought to have been at the second level (i.e. secondary schools and vocational schools). But it is only 51 percent for boys and 49.1 percent for girls. Similarly, in the age-group 18-25, most of the enrolment ought to have been at the University stage; but it

is only 27.7 p.c. for boys and 27.6 p.c. for girls. This stagnation. highlights the need to revise our enrolment policies and to reduce/

V.
Enrolment according to Grades

21. We saw earlier that as we move up from age 9 to age 24, there was a continuous fall owing to drop-out or wastage. If we move up from grade I to grade XII, the fall becomes even steeper because it includes drop-out as well as stagnation. This will be seen from the statistics given in Annexure III. A few of the conclusions that can be drawn from it are given below :-

BOYS

(1) The largest stagnation and drop-out take place in Class I. We have here the evidence of eleven different cohorts and it will be seen that against every 100 children in Class I in a given year, there are only about 60 in class II in the following year. During the last twelve years, this wastage has increased, from 34.9 p.c. to 39.5 p.c. The situation is bad and has not received any attention. My studies show that a child, on an average, takes 2.3 years to get out of class I. In fact, class I of the primary school may well be called the three-year degree course!

(2) Stagnation and wastage continue to dominate the primary stage (classes I-V). We have the evidence of eight cohorts here. They show that against every 100 children in class I in any given year, there are only about 38 in class V four years later. The wastage in the primary stage as a whole has been reduced from 63.9 p.c. in 1953-54 to 61.7 p.c. in 1960-61, showing thereby that if the child does survive Class I, his chances of completing the primary stage are about 2 in 3 and that these are becoming brighter every year.

(3) Stagnation and wastage continue at the middle school stage also (classes VI-VIII). We have evidence here of five cohorts. It will be seen therefrom that against 100

children in class I in any given year, there are about 25 in class VIII seven years later. The picture is improving because the wastage over this period has been reduced from 79.3 p.c. in 1956-57 to 75 p.c. in 1960-61. It is of course obvious that the wastage is still too large and that it is being reduced very slowly.

GIRLS

(4) The above conclusions apply to girls as well, with the difference that, in their case, wastage is greater still. For instance, in 1960-61 reduction from class I to class II is about 43.3 p.c. as against 39.5 p.c. for boys; that in the primary stage is 70.9 p.c. as against 61.7 p.c. for boys; and that at the elementary stage is 85 p.c. as against 75 p.c. for boys.

22 One general misunderstanding needs clarification in this context. Because we permit almost every student who completes his elementary school to go on to a secondary school or because we permit every student who has completed the secondary school to go on further to a college, it is claimed that our system of secondary and collegiate education is non-selective. Nothing can be further from truth. Of every 100 children that begin their journey up the educational ladder in class I, only about 20 are left by the time they complete class VIII. This is a worse selection than the much condemned selection at eleven plus in England which covers about 25 p.c. of the children. The elimination of the 80 p.c. is done on the most arbitrary and cruel basis - poverty. Those who are left to continue belong mostly to urban areas and the middle and upper classes. They are also mostly boys. One shudders to realise the waste this involves. Out of every five young persons who, on the basis of talent, ought to have been in secondary schools, four are eliminated at the start; and out of five children who are actually in secondary schools,

probably four do not deserve to be there! and obviously similar observations can be made about higher education also.

VI

Transition from One Stage of Education to Another

23 We shall now turn to the consideration of another aspect of the problem, viz., the extent to which pupils/students can pass from one stage of education to another. In a broad way, this exercise could be done by comparing the enrolment in the top class of one stage with that in the first class of the next stage in the following year. Obviously, the exercise has to be done separately for each State or Union Territory because the stages are differently defined from area to area. It will also have to be done separately for boys and girls. In Annexure IV, this has been done for two years 1950-51/1951-52 and 1960-61/1961-62 so that the trends in each could also be discerned.

24 The main conclusions to be drawn from these statistics have been summarised below:-

(1) At the end of the elementary stage (classes I-IV or I-V), 71.8 p.c. boys and 55.7 p.c. girls passed on to the next stage in 1950-51/1951-52. Ten years later in 1960-61/1961-62, this proportion rose to 84.1 p.c. for boys and 75.2 p.c. for girls.

(2) At the end of the middle school stage (classes V-VII or VI-VIII), the proportion of children who passed on to secondary stage was 76.5 p.c. for boys and 63.8 p.c. for girls in 1950-51/1951-52. It increased to 83.8 p.c. for boys and 78.5 p.c. for girls in 1960-61/1961-62.

(3) At the end of the secondary stage, the proportion of students who went up to higher education was 39.2 p.c. for boys and 39.4 p.c. for girls. It rose to 45.9 p.c. for boys and 44.2 p.c. for girls.

25 It is thus evident that the tendency to continue at school and to pass over from one stage to another is increasing very fast. What will happen is that, within the next 10-15 years every one who has completed the middle school will pass on to the secondary schools and about 60 p.c. of those who complete the secondary school will pass on to the college. In another 10-15 years, which is the time required to introduce universal elementary education, almost every one who completes a secondary school (and does not get a job) will pass on to the college. In other words, we shall provide universal compulsory education in about 30 years, so that every child who enters class I shall also reach class VIII (as against about 20 who do so at present). If our present open-door policies at secondary and higher education continue as they are, we shall find that simultaneously, we shall also be providing universal secondary education (because the rate of transfer from elementary to secondary would then have increased to 100 p.c. (as against about 80 p.c. at present), and we would also be providing higher education to about 80 p.c. of the age-group because the rate of transfer from secondary to higher education would have increased to about 80 p.c. In other words, we have embarked upon a programme, not of providing universal elementary education in the age-group 6-14 only, but of providing, almost simultaneously, universal elementary, secondary and higher education in the age-group 6-24! Of this, the most difficult part of the provision is that at the elementary stage and it is probably our good fortune that we will be prevented from fulfilling this goal for a long time; but once this can be done, we have already adopted such policies that the provision of universal secondary and higher education would be simultaneous and automatic! It is obvious that the entire position in this regard needs a careful scrutiny.

VII

Enrolments in the Age-Group 6-14

26. Some important questions arise in respect of our present enrolment policies and it may be desirable to study them separately for each distinct age-group. We may begin with the problems in relation to the elementary stage or the age-group 6-14.

27. Would it not be desirable to keep the age of admission to elementary schools at six plus? The admission

of younger boys (which is fairly common at present and which takes about 10 per cent of the available seats in the age-group 6-11) does not serve a very useful purpose; and it may be more desirable to spend this money on the education of the age-group 6-14. The opposition to this idea, it may be pointed out, comes mainly from the vocal urban middle classes who think that their children must begin education early so as to have a fairly safe margin in the race for government jobs.

28. In the age-group 6-9, the main problem to be faced is that of universal enrolment. It will be seen from Table NO. 1. that the enrolment in the age-group 6-7 was fairly high even in 1961-62. 77.7 percent for boys and 33.3 percent for girls. By the end of the Third Plan, it is expected that the enrolment of boys will rise to about 75 percent and that of girls to about 50 per cent in this age-group. It also appears that almost the same extent of enrolment would be reached simultaneously in the age-groups 7-8 and 8-9. The main question to be faced here, therefore, is this: Who are the non-attending children in this age-group?; What are the reasons which keep them out of schools at present?; and what steps can we take to bring them into schools as early as possible?

29. A few studies of non-attending children in this

age-group are available; and it is seen therefrom that the non-enrolment of children in the age-group 6-9 is due to (1) non-availability of school facilities within easy walking distance from the home of the child, due mainly to small and scattered habitations*; (2) poverty, i.e. the children belong to the weakest social groups such as landless labourers of the aboriginal tribes; (3) apathy of the parents to education; (4) nomadic life of the parents; (5) physical and mental handicaps such as blindness, deafness, idiocy, etc; and (6) Social prejudices, especially in the case of girls. The task of enrolling these children is, therefore, very difficult and also costly. In fact, it may be said that the easier part of the programme of enrolling children in the age-group 6-9 has already been accomplished and that what remains is the hardest nut to be cracked. From the present trends, however, it appears that the advanced States would be able to secure almost universal enrolment in the age-group 6-9 by the end of the fourth Plan (1970-71) and that even the six backward States (Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh), given some special assistance, would be able to do so by the end of the fifth Plan (1975-76). This would not be an unsatisfactory progress.

30. From the point of view of implementing Article 45 of the Constitution, therefore, the main problem is the age-group 9-14. In this age-group, there is no question of enrolment - every child would already have been enrolled

* With a view to providing a school within easy reach of the home of every child, an educational survey was conducted in 1957. There is now an urgent need to raise this survey as at the end of the third Plan and to prepare a programme of action for the next three plans.

when he was in the age-group 6-7 or at the latest in the age-group 7-9. The major problem here is to prevent the drop off that takes place. In 1955-56 for instance, the total enrolment of boys in the age-group 8-9 was 29.11 lakhs or 56.8 per cent of the total population in the age-group and that of girls was 13.31 lakhs or 27.0 per cent of the age-group. Five years later, in 1960-61, the enrolment of boys in the age-group 13-14 was 17.51 lakhs or 35.4 per cent of the total population in the age-group and that of girls was 5.50 lakhs or 11.8 per cent of the age-group. In other words, the enrolment of boys dropped by about forty per cent and that of girls by about sixty per cent. This is a very large extent of wastage and what is even worse, it is being reduced very slowly. For instance, in 1950-51, the enrolment of boys in the age-group 8-9 was 22.84 lakhs (or 50.2 per cent of the age-group) and it fell down to an enrolment of 12.86 lakhs (or 28.4 per cent of the age-group) in 1955-56 which shows a reduction of about forty-five per cent. Similarly, the enrolment of girls in the age-group 8-9 in 1950-51 was 9.47 lakhs (or 21.8 per cent of the age-group) and it fell down to 3.23 (or 7.6 per cent of the age-group) in 1955-56 - a fall of about sixty-six per cent. Comparing these with the figures given above for the period from 1955-56 to 1960-61, we see that the reduction in the drop-outs is only about one per cent per year. At this rate, we shall need about 40 to 50 years to reduce all the present wastage ! Obviously, we cannot plan on such a basis and we shall have to adopt some technique of quickly reducing this wastage, say in a period of 10 to 15 years.

31. Such an urgent approach to the solution of the problem necessitates an enquiry into the causes of

wastage. From a number of studies made in this sector, it appears that the main cause of this wastage (which accounts for about 65 per cent of the cases) is economic - the children are withdrawn from schools because they are needed for work at home and cannot attend schools on a full-time basis. The only way to overcome this wastage is to start part-time schools and to enable children to earn and learn. The other causes are social (such as marriage or betrothal) and defects in the system itself (such as poor quality of schools which cannot 'hold' the children). This will need efforts in terms of mass adult education and qualitative improvement of elementary schools*.

32. If these steps could be taken, it will be possible to enrol all children in the age-group 6-14, to fulfil the directive of Article 45 of the Constitution, and to stop all further additions to the ranks of the illiterates by the end of the sixth Plan (1980-81) or even earlier.

33. Two special aspects of the problem of providing universal education in the age-group 6-14 deserves special notice. These are : (1) the education of girls, and (2) the education of the weaker sections of the community and particularly of the scheduled castes and tribes. A detailed examination of both these special problems has been made in separate papers.

* For a detailed study of wastage in elementary schools, see Elementary Education, the second year-book of the NCERT, Chapter VIII.

VIII

Enrolments in the Age-Group 14-24

34. In the age-group 6-14, the target of enrolment is definite and precise because free and compulsory education is to be provided for all. There are also no major curricular problems because it is mostly a programme of undifferentiated good general education that is to be given to all children. But once we go beyond this age-group, the problems posed are entirely of a different type. To begin with, there can be no precise and self-contained targets of enrolment at the secondary and university stages, as at the elementary stage. Here, the targets of enrolment will be related, very largely, to the needs of the society for different categories of man-power and will thus vary from country to country and from one period to another. Secondly, since education at this stage has to suit the different aptitudes, interests and abilities of students and has to train them for different walks of life, the provision of diversified courses assumes great significance and what is essential to examine is not only the total enrolment in these age-groups, but also the enrolments in different types of courses. Thirdly, the quality of education becomes of far greater significance at these stages than the quantum of enrolment. At the primary stage, the objectives are limited and it is possible to say that 'some education is certainly better than none.' Hence the quantum of enrolment is of greater significance than quality. But the balance begins to tilt in favour of quality at the middle school stage and the significance of quality increases, in a geometrical proportion as it were, as we proceed up the

educational ladder - from middle to secondary, secondary to collegiate, and from collegiate to postgraduate and research which is the most crucial and seminal stage that fertilises the whole field of education and on whose quality depends the quality, not only of the educational system, but of the entire social system, itself. From the secondary stage onwards, therefore, it is not the numbers enrolled in schools that matter so much as the quality of education provided. In fact, as persons receiving secondary and higher education generally fill posts of leadership in various walks of life, it is far more dangerous to have 'bad' education at these stages than to have no education at all. As Shakespeare puts it : 'Lilies that pester smell far worse than weeds.'

35. A preliminary statement on the changes in certain attitudes in this regard is essential for a proper appreciation of recent developments in the field. Prior to 1947, our educational thought was mostly guided by British precedents; and hence the common view held was that elementary education should be for all while secondary and collegiate education should be for the gifted few. The Sargent Plan, prepared in 1944, was, therefore, based on this concept. It proposed to provide secondary education for one child in every five that completed the primary school and university education for one child in every fifteen that completed the secondary school. But public opinion has changed so greatly during the last 17 years that this policy is no longer acceptable. This is due to several reasons. Firstly, the old job-values which used to be attached to elementary education have now almost disappeared with the result that, for seekers of government jobs (and this includes every boy and one girl in every three or four), secondary education

has become the minimum and university education the optimum academic equipment required. This creates immense pressures for access to secondary and higher education. Secondly, the slow rate of economic growth, which does not create adequate employment opportunities at different stages of education, also compels children to proceed to secondary schools because they do not get a suitable job at the end of the elementary stage and to colleges, because they do not get a suitable job at the end of the secondary stage. In fact, several parents send their children to secondary schools and colleges for the simple reason that they cannot get employment and because they do not know what to do with the children if they were to remain idle at home. In short, the situation in an under-developed economy is just the opposite of that in an industrialised society. In the latter, the employment opportunities are so good and plentiful that 'opportunity costs' in education become very real and it requires a considerable sacrifice on the part of the family to send their children to higher stages of education and not ^{to} put them in for some employment. On the other hand, in a developing economy, it is the absence of employment opportunities which makes 'the opportunity costs' in education rather unreal and compels children to continue in schools because they cannot obtain suitable employment outside. At this point, the general laws of supply and demand also come into play and strengthen the trend for expansion. For instance, a large number of secondary schools and colleges get established in order to meet the ever-increasing demand from parents; and these, in their turn, stimulate the desire of students to continue education

still further. Thirdly, it may also be pointed out that, in the post-independence period in India, the influence of American educational developments and policies is becoming more powerful and discernible so that, from the purely philosophical point of view, we seem to have already accepted the concept of 'secondary education for all' and 'higher education for as many as possible', even before we are in a position to provide universal elementary education.

36. A similar change has also come about in our attitude to the levy of fees in secondary schools and colleges. Prior to 1947, the general view was that secondary and collegiate education should be largely supported by fees. Consequently, fees in government institutions were kept high and there were curbs on the minimum fees which private institutions could charge. The primary objective of this policy was to reduce the financial burden on the State; but it did also help in keeping down enrolment pressures to some extent. During the last seventeen years, however, there has been a tremendous change in these policies and the people now demand 'free' education not only at the elementary stage but also at the secondary and university stages. At the very minimum, they would like to have 'free' education at the secondary stage and low fees with large concessions at the collegiate stage. The Congress Manifesto issued at Bhubaneswar speaks of a programme of providing free education till the end of the secondary stage. This policy has already been adopted in Jammu & Kashmir and Madras. In most other States, the free studentships given at the secondary stage have been increased very considerably and the stage seems to be well set for making all secondary education free in the next five to ten years. Even at the university stage, there is a strong pressure to make education free or to

reduce fees to the minimum. In Jammu and Kashmir, university education is free for all. In some other States such as Maharashtra or Gujarat, there are very large concessions in fees at the university stage and the trend to expand these concessions is continually on the increase. Fees in higher education have come to be stabilised at a low level and any attempt to raise them is vigorously resisted. If the recent developments in Mysore are any guide, it has also become politically impossible to raise them to any substantial extent.

37. As a obvious result of these policies of 'open-door' access and free or 'cheap' education at the secondary and higher stages which were adopted in the first three Five Year Plans, the enrolments at the secondary and university stages have increased by leaps and bounds. Between 1951 and 1961, the enrolments have nearly been doubled in the case of boys and trebled in the case of girls. As the pressures arising from the large expansion taking place at the elementary stage have now begun to climb up, the rate of expansion at this stage is even faster at present and it is estimated that the doubling period for secondary education (or the age-group 14-17) has since been reduced to about 7 years. Similarly, the enrolments at the university stage have increased, between 1951 and 1961, at an even faster rate. The present indications are that the enrolments in higher education are being doubled in a period of approximately six years. If these trends continue, it may very well be that, at the end of the sixth Plan, the enrolments in secondary education may be about 50 per cent of its total population ^{in the age-group} and those at the university stage may be about 10 per cent of its population! This will not make India, by any means, an over-educated

country. In fact, the enrolments in India, even in 1981, may be of about the same order as they were in Japan in 1961. But in view of the under-developed stage of economy and the paucity of resources available, they create immense problems of (1) financing of education, (2) securing the necessary number of competent teachers, and (3) maintenance of standards.

38. As may be easily imagined, these pressures of expansion have led to a great dilution of quality at the secondary and university stages, especially because the necessary resources to maintain standards are not available. Even if one does not quite agree with the thesis that the standards at these stages of education have fallen, it is undeniable that we have not been able to raise them sufficiently or to keep pace with advanced countries where a great revolution in deepening the content of secondary and university education has taken place in recent years and especially after the second World War. The main problem to be faced in secondary and university education in the next 10-15 years is, therefore, to raise standards so largely that they would be comparable with those in advanced countries. This may be done with comparative ease if we can control expansion. But as that does not seem to be possible - at least to a material extent - one is called upon to reconcile the claims of an increasing demand for secondary and higher education with the urgent necessity of maintaining appropriate standards at these levels. This may have to be attempted in a number of ways such as : (1) the organization of correspondence education; (2) the development of programmes of part-time education on a large-scale; (3) the reduction

of unit costs consistently with the maintenance of standards; and (4) making a selective approach to educational development, either by selecting a few institutions for intensive development or by concentrating on the development of some significant sectors, or by selecting and assisting talented students; or (5) by a suitable combination of one or more of these ways.

IX

Liberal-Vocational Imbalance in
Secondary and Higher Education.

39. Another significant point with regard to enrolments in secondary and higher education, viz., the proportion of the enrolments in education, needs special attention. As was pointed out earlier, almost the whole of secondary and higher education is of an academic and liberal type in traditional societies while it is mostly of a vocational character in modern and industrialised societies; and that, in India, which aspires to be a modern industrialized society, the expansion of secondary and higher education will have to be accompanied, side by side with an attempt to vocationalise it and to relate it directly to production. But this is precisely what is not happening and what we are expanding today is the same old type of purely academic secondary and higher education. This has already created serious problems of educated-unemployment which are becoming more extensive and acute every year.

40. At the secondary stage, for instance, the enrolments in the courses of general and vocational education in the post-independence period were as follows :-

Table No. III

Total Enrolment at the Secondary Stage in Vocational Schools

Year	Enrolment at the Secondary Stage (General Education)			Enrolment in School Classes for Professional Education		
	Boys	Girls	Total	Boys	Girls	Total
1950-51	12,80,464	2,06,428	14,86,892	1,49,445	41,123	1,90,568
	89.5	83.4	88.6	10.5	16.6	11.4
1951-52	14,59,718	2,35,659	16,95,377	1,48,768	43,852	1,92,620
	90.8	84.3	89.8	9.2	15.7	10.2
1952-53	15,49,917	2,74,637	18,24,554	1,61,815	53,598	2,15,413
	90.5	83.7	89.4	9.5	16.3	10.6
1953-54	14,87,215	2,73,740	17,60,955	1,60,909	55,967	2,16,876
	90.2	83.0	89.0	9.8	17.0	11.0
1954-55	16,01,912	3,06,346	19,08,258	1,85,498	61,843	2,47,341
	89.6	83.2	82.5	10.4	16.8	11.5
1955-56	16,55,750	3,47,511	20,03,261	2,14,079	66,041	2,80,120
	88.6	84.0	87.7	11.4	16.0	12.3
1956-57	18,72,864	3,32,048	22,54,912	2,31,415	61,787	2,93,202
	89.0	86.1	83.5	11.0	13.9	11.5
1957-58	19,84,146	4,23,785	24,12,931	2,43,404	63,325	3,06,729
	89.1	87.1	88.7	10.9	12.9	11.3
1958-59	22,14,693	4,81,150	26,95,843	2,72,331	70,117	3,42,448
	89.0	87.3	88.7	11.0	12.7	11.3
1959-60	24,41,794	5,64,797	30,06,591	3,05,626	78,365	3,83,991
	88.9	87.8	88.7	11.1	12.2	11.3
1960-61	27,76,314	6,86,395	34,62,709	3,39,498	85,549	4,25,047
	89.1	88.9	89.1	10.9	11.1	10.9

It may roughly be stated that, at present, about 88 per cent of the children who proceed to secondary schools are enrolled to secondary schools are enrolled in schools of general education and that about 12 per cent of them only are enrolled in vocational schools. In the advanced countries of the West, this proportion is very different. In West Germany, for instance, the proportion of students in schools of general education is 30 per cent while that in vocational schools is 70 per cent. In Japan, these proportions would be about 40 and 60.

41. It has to be remembered that this problem of vocationalisation of secondary education (which would imply that, at the end of the secondary stage, a large majority of students would enter life in various fields rather than strive to enter the universities) was raised as early as 1882 by the Indian Education Commission. It pointed out that, "throughout India, high schools have hitherto been regarded, not only or chiefly as schools for secondary instruction intended for pupils whose education will terminate at that stage, but in a much greater degree - it may almost be said exclusively - as preparatory schools for those who are to become students of the universities". To remedy this deficiency, it recommended that secondary schools in India should develop what may be described as the equivalent of the 'modern side of schools in Europe' and suggested that "in the upper classes of high schools, there should be two divisions: one leading to the entrance examination of the universities, and the other of a more practical character, intended to fit youths for commercial or non-literary pursuits". This recommendation has been repeated, with increasing emphasis, by every Commission or important committee ever since; and although about 80 years have rolled by, the position continues to remain very unsatisfactory as the above statistics will show. In spite of all that has been said in the past and in spite of a very clear realisation of the need to vocationalise secondary education, the average secondary school/^{to}today still continues

to be purely academic in character and tries to 'fit the boy or girl for an entrance into a college' while it almost 'unfits him or her for everything else'. This is probably the most serious problem to be faced in the reconstruction of Indian education in the immediate future.

42. What has been said above of secondary education is almost equally true of higher education. This problem was first highlighted by the Calcutta University Commission. It pointed out that the total population of the then province of Bengal and the United Kingdom was almost the same - about 45 million and that, by a curious coincidence, the number of students preparing for university degree was also almost the same - about 26,000*. But the main difficulty lay in the fact that, in Bengal, a very small proportion of the students went in for what may ordinarily be described as vocational training. For instance, "the great majority - over 22,000 out of 26,000 - pursued purely literary courses which did not fit them for any but administrative, clerical, teaching and (indirectly) legal careers, while in the United Kingdom (if the training of teachers be regarded as vocational training), it was possible that these proportions would be nearly reversed". The Commission also pointed out that a comparison of the distribution of university students between academic and vocational courses with any other large and popular State would also yield similar results and observed that Bengal was "unlike any other civilised country in that so high a proportion of its educated classes set before them a university degree as the natural goal of ambition and sought this goal by means of studies which are almost purely literary in character and which, therefore, provided scarcely any direct professional training".

* The Commission pointed out that the students studying in the Intermediate stage (who formed about 15,000 out of the total of 26,000) were doing what was, for all practical purposes, school work and that it would be wrong to regard them as 'university students' as such.

43. At the University stage, the position has improved somewhat in the post-independence period, due mainly to the programme of economic development undertaken in the first three Five Year Plans and consequent impetus given to agricultural, medical, engineering and technical education. But in spite of all that has been done for vocational education, the expansion in general education itself has been so vast that the overall relative position of general versus vocational education at the university stage is not greatly altered. This will be seen from the following statistics:-

Table No. IV: Enrolment in Colleges of General and Vocational Education

Year	Enrolment in Colleges for General Education			Enrolment in Colleges for Professional Education		
	Boys	Girls	Total	Boys	Girls	Total
1950-51	2,85,405 (76.9)	40,313 (89.6)	3,25,723 (78.3)	85,595 (23.1)	4,668 (10.4)	90,263 (21.7)
1951-52	3,24,231 (77.6)	45,262 (89.4)	3,69,493 (78.9)	93,423 (22.4)	5,381 (10.6)	93,804 (21.1)
1952-53	3,61,351 (77.6)	53,714 (89.5)	4,15,065 (79.0)	1,04,223 (22.4)	6,304 (10.5)	1,10,527 (21.0)
1953-54	4,11,590 (78.3)	61,396 (89.3)	4,72,986 (79.6)	1,14,150 (21.7)	6,955 (10.2)	1,21,105 (20.4)
1954-55	4,57,464 (78.4)	72,109 (89.4)	5,29,573 (79.7)	1,26,239 (21.6)	3,503 (10.6)	1,34,797 (20.3)
1955-56	4,91,080 (77.8)	84,033 (90.1)	5,75,113 (79.4)	1,39,776 (22.2)	9,218 (9.9)	1,48,994 (20.6)
1956-57	5,29,475 (77.9)	95,797 (89.5)	6,25,272 (79.5)	1,50,271 (22.1)	11,193 (10.5)	1,61,464 (20.5)
1957-58	5,54,013 (76.7)	1,06,795 (83.5)	6,60,808 (78.4)	1,63,252 (23.3)	13,901 (11.5)	1,32,153 (21.6)
1958-59	6,09,733 (76.6)	1,24,630 (86.0)	7,34,463 (76.7)	1,35,734 (25.0)	15,905 (11.3)	2,01,639 (21.6)
1959-60	6,47,769 (75.0)	1,37,340 (86.0)	7,85,109 (76.7)	2,15,740 (25.0)	22,343 (14.0)	2,33,083 (23.3)
1960-61	6,56,972 (74.3)	1,49,595 (85.1)	8,06,567 (75.3)	2,38,937 (26.7)	26,124 (14.9)	2,65,111 (24.7)

44. It will be seen from the foregoing discussion that, both at the secondary and university stages, there is a considerable imbalance between the liberal and vocational courses. In spite of a very large expansion of vocational schools at the secondary stage in the first two Plans (the enrolment in these schools has increased from 1.91 lakhs in 1950-51 to 4.25 lakhs in 1960-61), the expansion of general secondary education in the same period has been so rapid (the enrolment in these schools has increased from 12.80 lakhs in 1950-51 to 27.76 lakhs in 1960-61) that the proportion of students enrolled in vocational courses at the secondary stage to total enrolment has declined from 11.4 per cent in 1950-51 to 10.9 per cent in 1960-61. At the university stage, the picture is a little better. The overall enrolment in colleges of professional education has increased from 90,000 in 1950-51 to 265,000 in 1960-61. But in spite of this nearly three-fold increase, the proportion of students in colleges of professional education has increased only from 21.7 per cent in 1950-51 to 24.7 per cent in 1960-61 due mainly to the fact that the enrolment in colleges of general education has also increased tremendously during the same period - from 2.35 lakhs in 1950-51 to 6.57 lakhs in 1960-61. If the needs of a modern industrialised society are to be adequately met, the proportion of students enrolled in general and vocational courses will have to be practically reversed.

45. What are the main causes which lead to this imbalance or why is it that we are unable to increase the proportion of students in vocational courses at the secondary and collegiate stages? There are several reasons. The first is the traditional attraction for the

white-collared professions and the social ethos which denigrates work with hands. The second is the more attractive remuneration that is still offered to people in the white-collared professions (except for engineering and technical education). The third is the financial fact that people find it easier to start secondary schools and colleges of general education (because they are much cheaper to establish and maintain) than schools and colleges of professional education. If this picture is to be changed, a number of steps will have to be taken: (1) to put some sort of a restraint on the expansion of schools and colleges of general education; (2) to provide the necessary funds, on a priority basis, for the establishment of vocational schools and colleges; (3) to improve the remuneration offered to those who complete vocational courses so that it becomes better than that offered to those in the white-collared professions, or in other words, to adopt a different strategy of remuneration for skilled jobs in the white-collared vis-a-vis the vocational carriers; (4) to make determined efforts to siphon students off into vocational courses at two or three levels - first at the end of the middle school, then at the end of the high school, finally at the end of higher secondary course or at the beginning of the university course. Obviously this problem is extremely important and needs the highest attention of educational planners.

X

A PROGRAMME OF ACTION

45. In view of the foregoing discussion, what programme of action in respect of enrolment policies

in Indian education can we recommend for the next 10-15 years? A few suggestions are offered here as a basis for consideration.

46. Elementary Stages: At the elementary stage, the complaint is that the enrolments are not increasing fast enough. The nation has set before itself the goal of providing free and compulsory education for all children till they complete the age of 14 years. This goal was to be reached by 1960. As things now stand, we will not be able to reach it even by 2000 A.D. One of the most important issues in the future development of education is, therefore, to decide how and when the Directive of article 45 of the Constitution would be fulfilled.

47. It may be pointed out that all expansion of elementary education takes place in three stages. The first is that of universal provision of facilities in which an attempt is made to provide a school within easy walking distance from the home of every child so that those who desire to educate their children may have the necessary facilities readily available. The next stage is that of universal enrolment when an attempt is made to enrol every child into school by propaganda, persuasion and, if necessary, legal action. This is obviously more difficult than the first. But even more difficult is the third stage of universal retention in which an attempt is made to keep in school every child that is once enrolled till he reaches the prescribed age or completes the prescribed class. It is of course obvious that these three stages are not mutually exclusive and that they generally run into one another. The expansion of elementary education in the advanced countries of the world has followed, more or less, the sequence of these three stages and there is no doubt that

similar developments will take place in India also.

(a) Universal provision of schools: In the first three Plans, the largest emphasis was on the first stage, namely, universal provision of schools. To assist in the realisation of this goal, an educational survey of the country as a whole was carried out in 1957. It found that there was a universal of elementary schools in urban areas and that the deficiencies were mostly restricted to the rural areas alone. It also found that there were about 300,000 rural habitations in the country and that a large proportion of them were still provided with educational facilities. To cover all of them, it assumed that a primary school should be provided in every habitation of 300 people or more (smaller habitations should be so grouped that every child would have a school within 1-2 miles of his home) and that a middle school would be provided in every habitation of 1500 people (smaller habitations would be so grouped as to create a middle school within 3-5 miles of the home of every child). On these assumptions, it proposed the opening of about 103,000 new primary schools and 21,700 new middle schools. A large number of these have been opened in the last seven years and, at least in so far as primary schools are concerned, we appear to be within sight of the goal of universal provision of school facilities. All the same, it would be worthwhile to revise the educational survey as at the end of the Third Plan so that the task which has remained undone as yet can be completed in the Fourth Five Year Plan. It thus appears that the goal of universal provision of elementary schools could be reached in all parts of the country by 1970-71 at the latest.

(b) Universal Enrolment: With regard to the second stage, namely, universal enrolment, our achievements in the first three plans have been rather haphazard. The main object of this stage is to enrol all children in the age-group 6 plus (with some exceptions in the case of children of 5 plus and 7 plus) in class I. But unfortunately, we have not been very conscious of this objective. What happens at present is that children of all ages - from 4 to 14 and above - are indiscriminately enrolled in class I. This makes the age-composition of class I extremely heterogeneous and the heterogeneity continues in all the subsequent classes. Consequently, the quality of instruction is badly affected throughout the elementary stage. It should be our endeavour, therefore, to avoid such haphazard enrolments in future, to enrol fresh children in schools as far as possible in the age-group 6-7, so that more than 80 per cent of the children in class I would be in the age-group 6-7 and the rest in the ages 5-6 or 7-8. Given a conscious and an intensive effort, there is no reason why we should not be able to reach this goal by the end of the 4th Plan. It is, therefore, recommended that we should concentrate on this objective during the next five to six years.

(c) Universality of Retention: Once the children of the right age-group (6-7) are enrolled in class I, we have to see that they progress annually from class to class (there is no stagnation) and that they do not leave the school (there is no wastage) till they complete 14 years of age or the elementary course. This aspect of the problem has been mostly neglected in the first three Plans so that wastage and stagnation are very high at present. It was shown earlier that of every 100 children who enter class I, only about 40 reach class V in the fifth year and about 25 reach class VIII in the eighth year. The main task

to be attempted during the next three Plans, therefore, is to reduce wastage and stagnation. From this point of view, the most important programme will be that of providing part-time instruction for students in the age-group 9-14 and also to improve the quality of our schools so that their attracting and holding power is greatly increased. If the programme of part-time instruction is adopted, there is no reason why the goal laid down in Article 45 of the Constitution should not be fulfilled by 1981.

48. It is, therefore, suggested that the following enrolment policies should be adopted in the age-groups 6-14 during the next three Plans:-

- (1) The first attempt to be made is to enrol all children in class I in the age-group 6-7 or, at the most, in the age-group 7-8.
- (2) The teaching in the schools should be so improved that every child which is enrolled in schools will progress from class to class in an orderly manner and that stagnation is reduced to the very minimum.
- (3) A child which is once enrolled in schools should not be allowed to leave the school until it completes the age of 14 years or the last class of the elementary stage (class VII or VIII as the case may be). If economic and other difficulties intervene, the child may cease to attend on a full-time basis, but he must be under an obligation to continue on a part-time basis - the part-time schooling being organised for about 300 hours a year. This may be arranged at the rate of two hours a day for three days in a week or at suitable seasons when the agricultural work may be slack.

- (4) In the transitional period in the Fourth and Fifth Five Year Plans, attendance in a programme of part-time education, as mentioned above, should be made obligatory for all children in the age-group 11-14 who have not completed class IV at least of the elementary school.

49. Secondary Education: At the secondary stage, our first attempt should be to restrict the extremely rapid and indiscriminate expansion of general secondary education that is now taking place. To this end, the following five measures, either separately or in combination, may be adopted:-

(a) Institution of an examination at the end of the

Elementary Stage: It is suggested that there should be an examination at the end of the elementary stage. It should be optional for the students to appear or not to appear for this examination; but a pass therein should be regarded as obligatory for those who want to enter secondary schools of general education. Such a qualifying examination will have several advantages. In the first place, it will reduce the proportion of children who pass from elementary to secondary education and thereby act as a check on indiscriminate expansion. Secondly, it will create better motivation, both for teachers and students. Thirdly, it will improve the attainment level of students when they enter secondary schools so that the standard of secondary education itself will tend to rise.

(b) Increase in Fees: It is felt that the present policy of providing free education at the secondary stage is neither beneficial nor rational. Such a non-discriminatory concession will not create any harm if it is applied at a stage where education is to be

neither beneficial nor rational. Such a non-discriminatory concession will not create any harm if it is applied at a stage where education is to be universal or compulsory for all. It will also create no harm if the enrolments at the given stage mirror exactly the composition of the society at large. But neither of these conditions is fulfilled at the secondary stage. There is no idea, at least for several years to come, of making secondary education universal and compulsory. Similarly, the population of secondary school students does not represent the composition of the society at large. In fact the advantage of secondary education is now mostly taken by the upper and middle classes and by the urban people. A policy of indiscriminate free secondary education, therefore, tends to favour the Haves rather than the Have-nots. It is, therefore, felt that this policy should be abandoned and replaced by a policy in which fairly high fees are charged and concessions in fees are given to those students who are deserving but economically handicapped. At the very least, we should restrict free secondary education on some equitable basis. For instance, we might say that free secondary education would be provided only to one boy and one girl of every family and that additional children coming into secondary schools would have to pay fees at fairly high rates. This is a very important question of policy which needs attention of the Education Commission.

- (c) Enforcing strict conditions of recognition: One major cause of the indiscriminate expansion of secondary education is political pressures that are brought to bear on the education departments and

compel them to recognise sub-standard secondary schools. Even if the normal conditions which are prescribed for secondary schools are rigidly insisted upon, the increase in the number of secondary schools will go down by more than 50 per cent and, to that extent, the enrolments will also go down. What now happens is the establishment of a vicious circle. We do not insist on the maintenance of standards when new secondary schools are established and recognised. Consequently sub-standard schools come into existence and lead to an increase in enrolments. This, in its turn, creates the demand for more secondary schools so that a still larger number of sub-standards or more sub-standard schools are brought into existence; and so on. The only way to break this vicious circle - and thereby to control the discriminat expansion of general secondary education - is to enforce rigid conditions for recognition of new secondary schools or even in the continuation of recognition to schools which have already come into existence but are still sub-standard.

- (d) Vocationalisation: While it is necessary to restrict the expansion of general secondary education, every step has to be taken to expand, as quickly as possible, the enrolments in vocational secondary schools. For this purpose, the establishment of vocational schools should be regarded as a high priority charge on government funds and liberal grants-in-aid should be made available to private enterprise for the purpose. Fees in vocational schools should be low or it should be totally free. The

remuneration and employment policies should also be such as to place vocational education at a premium vis-a-vis general education.

(c) Part-time Education: It may be difficult to resist the demand for secondary education, especially because there would not be adequate employment opportunities for children who have completed the elementary stage. In order to meet this demand, we should undertake a large programme of providing part-time or correspondence education at the secondary stage. This will be less costly and in this manner, it may be possible to provide secondary education for every child who demands it, without diluting the standards of secondary schools which provide instruction on a full-time basis or increase the over-all costs to a prohibitive figure.

50. Universities stage: What has been stated above for the secondary stage is also applicable, mutatis mutandis to the University stage.

51. The policies recommended here are in such striking contrast with the existing thinking on the subject that there is no chance of their acceptance by any individual State unless a decision to this effect is taken on an all-India basis and adequate measures are adopted to educate public opinion on the subject. This is a special responsibility of the Education Commission. It is, therefore, recommended that the Commission may discuss the issues raised above and come to some tentative conclusions which could then be discussed, at a very high level, with the Chief Ministers, Education Ministers, Education Secretaries and Directors of Public Instruction in every State and Union Territories.

New Delhi
9th November 1964.

J.P. Naik
MEMBER-SECRETARY
EDUCATION COMMISSION

ANNEXURE I

Total Enrolment by Age-Groups and Stages (1951)

Age-Group	I-V	VI-VIII	IX-XII	Vocation- and Spl. (School stage)	Univer- sity stage (Gen.Edn)	Prof. & Spl. Edn. (College Stage)	Total	
6-11	Boys	(96.0) 1,03,24 (82.1)	(3.7) 3,88 (15.0)	(0.0) 4 (0.4)	(0.3) 34 (5.1)	(-) - (-)	(-) - (-)	(100.0) 1,07,50 (62.4)
	Girls	(97.3) 42,15 (86.5)	(2.4) 1,05 (19.7)	(0.0) 1 (0.6)	(0.3) 11 (7.2)	(-) - (-)	(-) - (-)	(100.0) 43,32 (75.1)
11-14	Boys	(55.1) 19,91 (15.8)	(38.4) 13,88 (53.7)	(5.2) 188 (16.2)	(1.3) 47 (7.1)	(-) - (-)	(-) - (-)	(100.0) 36,14 (20.9)
	Girls	(62.9) 6,06 (12.4)	(32.3) 3,11 (58.3)	(3.9) 37 (20.9)	(0.9) 9 (5.9)	(-) - (-)	(-) - (-)	(100.0) 963 (16.7)
14-18	Boys	(12.6) 2,64 (2.1)	(36.9) 7,69 (29.8)	(37.6) 784 (67.7)	(10.0) 208 (31.2)	(2.4) 50 (28.4)	(0.5) 11 (14.9)	(100.0) 2,086 (12.1)
	Girls	(14.6) 52 (1.1)	(31.9) 1,14 (21.4)	(34.5) 123 (69.5)	(16.5) 59 (38.8)	(2.5) 9 (36.0)	(-) - (-)	(100.0) 357 (6.2)
18-25	Boys	(0.4) 3 (0.0)	(4.9) 39 (1.5)	(23.0) 182 (15.7)	(47.7) 377 (56.6)	(16.0) 126 (71.6)	(8.0) 63 (85.1)	(100.0) 790 (4.6)
	Girls	(-) - (-)	(2.6) 3 (0.6)	(13.9) 16 (9.0)	(63.5) 73 (48.1)	(13.9) 16 (64.0)	(6.1) 7 (100.0)	(100.0) 115 (2.0)
Total (6-25)	Boys	(73.0) 1,25,82 (100.0)	(15.0) 25,84 (100.0)	(6.7) 11,58 (100.0)	(3.9) 6,66 (100.0)	(1.0) 1,76 (100.0)	(0.4) 74 (100.0)	(100.0) 1,72,40 (100.0)
	Girls	(84.5) 48,73 (100.0)	(9.2) 5,33 (100.0)	(3.1) 1,77 (100.0)	(2.6) 1,52 (100.0)	(0.5) 25 (100.0)	(0.1) 7 (100.0)	(100.0) 5,767 (100.0)

- N.B.** (1) The figures (outside brackets) given in each column represent the total enrolment in thousands. For instance, the total enrolment of boys in the age-group 6-11 in classes I-V was 1,03,24,000.
- (2) The percentages given within brackets above the main figure show the horizontal percentage. For example, of the total enrolment of boys in the age-group 6-11, 96 p.c. is in classes I-V, 3.7 p.c. is in classes VI-VIII and 0.3 p.c. is in vocational and special schools.
- (3) The percentages given within brackets below the enrolment figure represent the vertical percentage. For example, the enrolment of boys in the age-group 6-11 in classes I-V is 86.1 p.c. of the total enrolment in these classes, the balance being made up by boys in the age-group 11-14 who form 15.8 p.c. and boys in the age-group 14-18, who form 2.1 per cent.

ANNEXURE II

Total Enrolment by Age-Groups and Stages (1961)

Age-group	I-V	VI-VIII	IX-XII	Vocational & spl. (school std.)	Univ. stage Gen. Edn.	Prof. & spl. College std.	Total
Boys	(96.2)	(3.5)	(0.0)	(0.3)	-	-	(100.0)
	1,30,36	6,62	3	43	-	-	1,38,04
	(33.3)	(13.0)	(0.3)	(4.3)	(-)	(-)	(60.7)
Girls	(97.3)	(2.5)	(0.0)	(0.2)	-	-	(100.0)
	90,50	2,31	1	18	-	-	93,00
	(36.9)	(14.2)	(0.2)	(7.0)	(-)	(-)	(71.5)
Boys	(43.4)	(44.1)	(6.2)	(1.3)	(0.0)	-	(100.0)
	31,64	28,33	4,04	89	1	-	65,41
	(14.7)	(56.8)	(15.7)	(8.0)	(0.2)	(-)	(21.1)
Girls	(58.6)	(41.6)	(3.7)	(1.1)	-	-	(100.0)
	12,77	9,89	88	26	-	-	23,30
	(12.3)	(60.7)	(15.0)	(10.0)	(-)	(-)	(18.3)
Boys	(8.2)	(36.6)	(43.4)	(7.6)	(3.3)	(0.9)	(100.0)
	3,23	14,56	17,27	3,01	132	36	39,30
	(1.5)	(23.7)	(67.3)	(27.0)	(32.6)	(16.6)	(12.9)
Girls	(8.2)	(33.8)	(41.6)	(7.5)	(3.4)	(0.5)	(100.0)
	34	3,98	4,26	77	35	5	10,25
	(0.8)	(24.4)	(72.4)	(29.7)	(36.1)	(17.9)	(7.9)
Boys	(0.2)	(4.5)	(26.2)	(41.4)	(16.6)	(11.1)	(100.0)
	4	74	4,29	6,77	2,72	1,81	16,37
	(0.0)	(1.5)	(16.7)	(60.7)	(67.2)	(83.4)	(5.3)
Girls	-	(3.9)	(23.7)	(44.8)	(20.1)	(7.5)	(100.0)
	-	12	73	1,33	62	23	3,03
	(-)	(0.7)	(12.4)	(53.3)	(63.9)	(82.1)	(2.3)
Boys	(69.7)	(16.4)	(8.3)	(3.6)	(1.3)	(0.7)	(100.0)
	2,15,82	50,75	25,68	11,15	4,05	2,17	3,09,62
	(100.)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Girls	(80.0)	(12.5)	(4.5)	(2.0)	(0.8)	(0.2)	(100.0)
	1,04,11	16,30	5,83	2,59	97	28	1,30,13
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

N.B. The explanations given under Annexure I are applicable, mutatis mutandis, to this Annexure also.

ANNEXURE IV

Table No.1: Transition from Stage to Stage (1950-51/1951-52)

States/ Terri- tories.	Primary		Middle		Percentage	
	Number of Students on rolls in last class of Primary Stage 1950-51		Number of Students on rolls in I class of Middle Stage in 1951-52			
	Boys	Girls	Boys	Girls	Boys	Girls
1	2	3	4	5	6	7
Assam	51,430	13,294	39,053	7,935	75.9	60.1
Bihar	1,10,666	10,526	97,952	6,324	33.5	60.1
Bombay	3,47,035	1,33,062	2,36,073	32,960	63.0	60.1
Madhya Pradesh	34,179	20,090	49,143	9,397	58.4	46.3
Madras	3,31,471	1,49,223	2,03,273	63,443	61.3	42.5
Orissa	22,494	2,568	14,751	1,432	65.6	55.3
Punjab	72,423	12,354	62,362	5,917	86.1	47.9
Uttar Pradesh	2,51,456	26,035	1,33,423	17,415	72.9	66.3
West Bengal	1,49,979	37,510	1,05,472	22,505	70.3	60.0
Hydrabdd	51,243	10,309	41,094	6,073	30.2	59.0
Madhya Bharat	22,053	2,644	14,704	2,423	66.7	91.6
Mysore	53,462	23,773	43,131	14,344	73.3	60.3
Pepsa	6,339	1,460	13,553	1,109	100.0	76.0
Rajasthan	22,061	3,460	21,037	3,063	95.6	33.7
Saurashtra	23,323	7,329	14,247	4,626	62.1	59.1
Travancore	72,231	53,625	52,222	33,001	72.2	61.5
Cochin.						
Ajmer	2,637	722	2,649	533	93.6	30.7
And Islands	133	39	96	33	72.2	34.6
Bhopal	1,661	237	1,032	165	65.1	69.6
Bilaspur	311	15	342	17	100.0	100.0
Coorg	1,355	939	1,196	611	33.3	65.1
Delhi	11,624	2,339	10,164	4,000	37.4	100.0
Himachal Pradesh	3,466	353	3,503	417	100.0	100.0
Kutch	1,524	235	1,320	370	36.6	100.0
Manipur	3,313	525	2,076	375	62.7	71.4
Tripura	2,059	464	2,213	477	100.0	100.0
Vindhya Pradesh	6,333	318	4,653	152	73.4	47.3
India (Total)	17,11,534	5,19,603	12,20,354	2,39,227	71.3	55.7

ANNEXURE IV

Table No. 1: Transition from Stage to Stage (1950-51/1951-52)
(contd.)

States/ Territory	Middle		Secondary		Percentage	
	Number of Students on rolls in last class of Middle Stage in 1950-51		Number of students on rolls in 1st class of Secondary Stage in 1951-52			
	Boys 8	Girls 9	Boys 10	Girls 11	Boys 12	Girls 13
Assam	17,367	4,059	12,935	2,903	72.7	71.5
Bihar	74,717	3,977	35,301	3,430	100.0	36.2
Bombay	1,30,326	39,405	73,035	19,590	59.6	49.7
Madhya Pradesh	17,999	3,509	13,329	2,420	74.1	69.0
Madras	1,49,397	35,930	1,01,497	13,349	69.3	51.0
Orissa	13,353	351	7,363	549	53.9	64.5
Punjab	33,337	3,295	27,321	1,531	32.0	46.5
Uttar Pradesh	1,59,390	11,555	1,13,042	19,005	73.3	75.3
West Bengal	78,643	14,639	69,495	11,123	33.4	76.0
Hydrabad	13,205	2,061	13,432	1,741	100.0	34.5
Madhya Bharat	3,231	961	4,412	616	53.6	34.1
Mysore	30,332	6,599	13,255	3,356	59.2	53.1
Popsu	11,732	553	4,327	236	36.9	53.5
Rajasthan	12,635	1,973	10,233	1,100	31.0	55.6
Saurashtra	10,213	2,500	5,459	1,195	53.3	47.3
Travancore- Cochin	35,952	22,242	37,904	20,395	100.0	93.3
Ajmer	1,925	232	1,705	185	33.6	35.5
A&N Islands	55	13	34	12	66.2	66.7
Bhopal	465	60	290	43	62.4	71.7
Bilaspur	123	14	111	19	100.0	100.0
Coorg	393	396	351	253	39.4	63.9
Delhi	6,272	1,967	5,565	1,161	33.7	59.0
Himachal Pradesh	934	111	649	63	69.5	31.3
Kutch	375	119	720	104	32.3	37.4
Manipur	1,537	135	1,455	164	92.9	33.6
Tripura	1,547	237	1,235	235	33.1	99.3
Vindhya Pradesh	2,327	77	737	22	27.3	23.6
India (Total)	3,12,422	1,53,030	6,21,430	1,00,920	76.5	63.3

ANNEXURE IV

Table No. 1: Transition from Stage to Stage (1950-51/1951-52)
(contd.)

States/ Territory.	Secondary		Collegiate		Percentage	
	Number of students on rolls in last class of Secondary stage in 1950-51		Number of students on rolls in 1st class of Collegiate Stage in 1951-52			
	Boys 14	Girls 15	Boys 16	Girls 17	Boys 18	Girls 19
Assam	6,674	1,001	2,136	312	32.8	31.2
Bihar	26,773	751	6,444	413	24.1	55.0
Bombay	36,513	3,467	12,637	2,669	34.7	31.5
Madhya Pradesh	10,435	1,564	2,436	330	23.8	24.3
Madras	50,345	6,376	16,328	1,904	32.4	27.7
Orissa	3,787	130	1,335	123	50.0	71.1
Punjab	21,624	933	7,374	713	34.1	76.5
Uttar Pradesh	60,976	3,340	36,611	3,163	60.0	94.7
West Bengal	30,311	4,525	15,690	2,335	41.0	51.6
Hyderabad	7,135	312	2,795	296	39.2	26.5
Madhya Bharat	3,148	401	1,543	233	49.0	59.4
Mysore	14,123	2,315	3,325	721	27.1	31.1
Pepsu	3,225	213	1,021	112	31.7	51.4
Rajasthan	5,506	319	2,363	274	42.9	33.5
Saurashtra	3,644	700	592	104	16.2	14.9
Travancore-Cochin	15,049	6,535	7,324	1,360	43.7	23.5
Ajmer	1,217	172	362	77	29.7	44.3
AN Islands	3	1	-	-	-	-
Bhopal	214	32	96	13	44.9	56.2
Bilaspur	120	-	-	-	-	-
Coorg	173	33	93	13	53.8	21.7
Delhi	4,154	947	1,335	314	33.3	33.2
Himachal Pradesh	416	44	110	7	26.4	15.9
Kutch	203	14	-	-	-	-
Manipur	457	9	125	7	27.4	77.3
Tripura	532	103	209	29	35.9	23.2
Vindhya Pradesh	763	36	226	10	29.6	27.3
India (Total)	3,15,530	40,333	1,23,760	16,103	39.2	39.4

ANNEXURE IV

Table No. II - Transition from Stage to Stage (1960-61/1961-62)

State/ Territory	Primary		Middle		Percentage		
	Enrollment in the last		Enrollment in the 1st		Boys		Girls
	Standard of Primary		Standard of Middle Stage		Boys		
	Stage in 1960-61		in 1961-62		Boys		
1	2	3	4	5	6	7	
Andhra Pradesh	1,90,681	94,958	1,47,561	48,125	77.4	50.7	
Assam	71,205	35,223	62,931	26,809	33.5	76.1	
Bihar	2,21,633	43,502	1,92,731	27,659	37.0	33.6	
Gujarat	1,77,544	36,511	1,53,614	68,472	39.3	79.1	
Jammu & Kashmir	21,777	5,573	20,630	6,211	95.0	111.3	
Kerala	2,90,093	1,93,014	1,37,739	1,52,806	61.7	79.2	
Madhya Pradesh	1,53,636	38,200	1,24,423	30,370	73.4	30.3	
Madras	2,58,103	1,37,393	2,13,313	99,136	82.6	72.2	
Maharashtra	3,65,030	1,72,721	3,16,723	1,30,159	36.3	75.4	
Mysore	1,31,553	59,025	1,71,851	49,734	39.6	34.3	
Orissa	55,662	9,871	45,650	7,109	32.0	72.0	
Punjab	1,56,671	53,012	1,44,423	43,290	92.2	74.6	
Rajasthan	91,323	13,793	91,879	14,737	100.1	73.7	
Uttar Pradesh	3,56,637	80,933	3,14,191	57,403	33.1	70.9	
West Bengal	2,38,373	1,01,026	1,97,433	32,847	32.8	32.0	
A&N Islands	217	113	276	116	127.2	102.7	
Delhi	27,072	16,724	29,502	19,917	109.0	119.1	
Himachal Pradesh	3,297	1,735	7,237	1,435	37.2	35.6	
L.M.&A Islands	270	69	217	44	30.4	63.3	
Manipur	3,773	3,534	7,609	3,505	36.7	97.3	
Nagaland	3,304	1,932	2,202	391	57.9	43.6	
Pandi-cherry	2,239	1,329	2,237	951	97.7	71.6	
Tripura	6,071	2,647	5,283	2,134	37.1	32.5	
INDIA (Total)	23,42,450	11,62,364	23,90,933	3,74,515	34.1	75.2	

ANNEXURE IV

Table No. II - Transition from Stage to Stage (1960-61/
1961-62)
(Contd)

State	Middle		Secondary		Percentages	
	Boys	Girls	Boys	Girls	Boys	Girls
Terri-ary.	Enrolment in the Last Standard of Middle Stage in 1960-61		Enrolment in the First standard of the Secondary Stage in 1961-62			
Andhra Pradesh	85,065	22,003	72,007	16,353	84.6	74.3
Assam	46,795	17,636	35,686	12,194	76.3	69.1
Bihar	1,97,925	19,153	1,44,291	11,798	72.9	61.6
Gujarat	93,007	37,689	80,016	27,685	86.0	73.5
Jammu & Kashmir	14,407	3,050	12,377	3,001	85.9	98.4
Kerala	50,107	1,12,485	1,32,415	99,326	88.2	88.3
Madhya Pradesh	70,765	12,132	52,230	10,726	73.8	88.4
Madras	1,25,121	52,579	96,922	35,893	77.5	68.3
Maharashtra	1,79,324	64,280	1,62,730	51,103	90.7	79.5
Mysore	68,857	23,650	57,986	18,478	84.2	78.1
Orissa	20,900	2,243	30,383	2,139	97.5	95.4
Punjab	94,202	23,241	79,514	18,896	84.4	81.3
Rajasthan	45,873	6,105	48,108	4,650	104.9	76.2
Uttar Pradesh	2,11,893	32,595	1,72,835	23,102	81.6	70.9
West Bengal	1,07,358	33,787	95,082	28,141	88.6	83.3
A & N Islands	75	31	85	40	113.3	129.0
Delhi	19,241	14,787	20,581	11,245	107.0	76.0
Himachal Pradesh	4,610	349	3,183	576	69.0	67.8
L.M.&A Islands	145	8	64	3	44.1	37.5
Manipur	5,075	1,479	4,630	1,359	91.2	91.9
Nagaland	1,131	545	676	218	59.8	40.0
Pondicherry	1,229	297	1,096	291	89.2	98.0
Tripura	2,937	1,045	2,636	937	89.8	89.7
INDIA (Total)	15,46,043	4,81,669	12,95,533	3,78,154	83.8	78.5

ANNEXURE IV

Table No. II - Transition from Stage to Stage
(1960-61/1961-62)
(Contd)

State	Secondary		Colligiate		Percentage	
	Enrolment in the last standard of Secondary Stage in 1960-61		Enrolment in the first standard of colligiate Stage in 1961-62			
	Boys	Girls	Boys	Girls	Boys	Girls.
Andhra Pradesh	46,530	7,688	21,146	3,297	45.4	42.9
Assam	22,589	5,693	8,493	1,657	37.6	29.1
Bihar	85,272	5,348	46,645	2,923	54.7	54.7
Gujarat	32,319	9,040	6,131	2,797	19.0	30.9
Jammu & Kashmir	352	51	1,954	657	-	-
Kerala	45,224	29,065	12,479	5,872	27.6	20.2
Madhya Pradesh	26,040	3,745	379	38	1.5	1.0
Madras	55,568	16,619	16,787	3,838	30.2	23.1
Maharashtra	54,641	17,064	25,618	7,860	46.9	46.1
Mysore	35,504	9,359	14,666	3,088	41.3	33.0
Orissa	9,547	868	5,005	663	52.4	76.4
Punjab	7,831	1,732	14,958	3,936	-	-
Rajasthan	6,695	602	6,000	1,226	89.6	-
Uttar Pradesh	1,63,472	18,356	72,924	10,204	44.6	55.6
West Bengal	19,364	4,713	23,915	9,925	-	-
Andaman & Nicobar Islands	34	10	-	-	-	-
Delhi	5,859	2,415	1,641	738	28.0	30.6
Himachal Pradesh	2,024	351	348	66	17.2	18.8
L.D. & A. Islands	-	-	-	-	-	-
Manipur	2,366	498	794	115	33.6	23.1
Nagaland	359	110	365	63	101.7	57.3
Pondicherry	682	165	168	23	24.6	13.4
Tripura	386	87	381	68	98.7	78.2
INDIA (TOTAL)	6,22,658	1,33,559	2,85,802	59,054	45.9	44.2.

ANNEXURE III

TABLE NO. I.

Study of Wastage - Cohort Starting with 1949-50 (Boys)

Class	Enrolment in the year											
	(in C.O's)											
	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
I	47.72 (100.0)	47.63 (100.0)	48.02 (100.0)	50.23 (100.0)	54.68 (100.0)	61.89 (100.0)	66.60 (100.0)	67.71 (100.0)	72.42 (100.0)	78.84 (100.0)	83.42 (100.0)	87.10 (100.0)
II	29.41 (100.0)	31.08 (65.1)	31.42 (66.0)	31.17 (64.9)	33.07 (65.8)	34.45 (63.0)	38.23 (61.8)	40.46 (60.8)	41.56 (61.4)	44.98 (62.1)	48.27 (61.2)	50.47 (60.5)
III	22.37 (100.0)	24.52 (83.4)	25.86 (84.2)	25.39 (83.3)	26.33 (84.8)	26.98 (83.7)	28.79 (82.7)	31.53 (80.9)	33.29 (80.0)	35.06 (81.8)	37.10 (81.2)	40.30 (81.1)
IV	17.66 (100.0)	19.71 (88.1)	20.79 (70.7)	21.62 (45.3)	22.28 (46.8)	22.67 (47.2)	23.44 (46.7)	25.10 (45.9)	26.57 (42.9)	28.69 (43.1)	30.01 (44.3)	32.15 (44.4)
V	13.44 (100.0)	14.75 (83.5)	15.72 (70.3)	13.56 (56.3)	17.21 (36.1)	17.50 (36.7)	18.22 (37.9)	19.71 (39.2)	20.22 (37.0)	22.56 (36.5)	24.15 (36.3)	25.90 (38.3)
VI	9.53 (100.0)	10.15 (75.5)	11.43 (64.7)	11.93 (53.3)	12.38 (42.1)	12.68 (26.6)	13.37 (28.1)	14.41 (30.3)	15.32 (30.5)	16.81 (30.7)	19.37 (31.3)	20.35 (30.6)
VII	8.08 (100.0)	8.48 (88.6)	9.21 (68.5)	9.59 (54.3)	10.31 (46.1)	11.10 (37.7)	11.49 (24.1)	12.14 (25.5)	12.66 (26.4)	13.89 (27.6)	14.82 (27.1)	16.74 (27.0)
VIII	6.10 (100.0)	6.23 (52.4)	7.33 (76.8)	7.76 (57.7)	8.33 (47.1)	8.83 (39.5)	9.40 (32.0)	9.89 (20.7)	10.37 (21.8)	11.30 (23.5)	12.02 (20.9)	13.35 (22.0)
IX	4.14 (100.0)	4.60 (75.5)	5.88 (72.8)	5.64 (58.9)	5.95 (44.2)	6.32 (35.8)	6.98 (31.2)	7.58 (25.8)	7.76 (16.3)	8.59 (13.0)	9.30 (19.4)	10.24 (20.4)
X	3.20 (100.0)	3.67 (88.8)	4.18 (68.5)	4.91 (60.8)	5.06 (52.9)	5.34 (39.7)	5.66 (32.0)	6.20 (27.7)	6.63 (22.7)	7.23 (15.1)	7.71 (15.2)	8.50 (17.9)
XI	1.72 (100.0)	1.92 (60.0)	2.06 (49.7)	2.36 (38.7)	2.56 (31.6)	2.59 (27.1)	2.76 (20.6)	2.86 (16.2)	3.27 (14.6)	3.33 (11.3)	3.43 (7.2)	4.12 (8.6)
XII	36 (100.0)	38 (22.2)	38 (11.8)	41 (9.9)	44 (7.2)	16 (2.0)	18 (1.9)	19 (1.4)	23 (1.3)	20 (0.9)	26 (0.9)	35 (0.7)

ANNEXURE -III

Table No. II. Study of Passage - Cohort Starting with 1949-59 (Girls)

Class	Enrolment in the year											
	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61.
I.	2	3	4	5	6	7	8	9	10	11	12	13
I.	21,30 (100.0)	21,85 (100.0)	22,23 (100.0)	23,73 (100.0)	26,20 (100.0)	29,22 (100.0)	32,98 (100.0)	35,12 (100.0)	36,66 (100.0)	41,15 (100.0)	43,51 (100.0)	46,81 (100.0)
II.	11,95 (100.0)	12,23 (57.4)	13,03 (49.6)	12,85 (57.8)	13,93 (58.7)	15,15 (57.8)	17,00 (58.2)	18,25 (55.3)	19,30 (55.0)	21,32 (58.2)	23,20 (56.4)	24,66 (56.7)
III.	8,20 (100.0)	9,01 (75.4)	9,47 (44.5)	9,58 (43.9)	10,15 (45.6)	10,82 (45.6)	11,83 (45.4)	13,05 (44.6)	14,18 (43.0)	15,42 (43.9)	16,81 (45.8)	18,56 (45.1)
IV.	5,99 (100.0)	6,51 (79.4)	6,97 (48.2)	7,24 (34.0)	7,70 (35.2)	8,08 (36.3)	8,71 (36.7)	9,57 (36.5)	10,29 (35.2)	11,51 (34.9)	12,47 (25.0)	13,78 (37.6)
V.	3,23 (100.0)	4,28 (70.0)	4,57 (55.7)	5,12 (42.8)	5,19 (24.4)	5,49 (25.1)	5,81 (26.1)	6,64 (28.0)	7,22 (27.6)	8,03 (27.5)	9,25 (28.1)	10,21 (29.1)
VI.	1,92 (100.0)	2,31 (59.4)	2,57 (42.9)	2,75 (33.6)	3,09 (25.8)	3,29 (15.4)	3,61 (1.5)	4,21 (18.9)	4,58 (19.3)	5,26 (20.1)	6,56 (22.5)	6,92 (21.0)
VII.	1,67 (100.0)	1,75 (90.8)	1,92 (49.5)	2,09 (34.9)	2,42 (29.6)	2,64 (22.1)	2,87 (1.5)	3,29 (15.0)	3,59 (16.1)	4,05 (17.1)	4,44 (16.9)	5,47 (18.7)
VIII.	1,09 (100.0)	1,29 (77.3)	1,40 (74.6)	1,55 (40.0)	1,75 (29.2)	1,94 (23.7)	2,20 (1.4)	2,43 (11.4)	2,76 (12.6)	3,09 (13.9)	3,31 (13.9)	3,92 (15.0)
IX.	85 (100.0)	77 (70.5)	91 (54.8)	96 (50.0)	1,07 (27.6)	1,20 (20.0)	1,44 (7.6)	1,57 (13.1)	1,73 (8.1)	1,97 (9.0)	2,17 (9.8)	2,56 (10.8)
X.	43 (100.0)	53 (83.2)	66 (60.9)	80 (47.8)	87 (45.3)	96 (21.3)	1,10 (3.3)	1,23 (14.9)	1,35 (11.3)	1,49 (7.0)	1,62 (7.4)	1,93 (8.7)
XI.	28 (100.0)	31 (64.4)	36 (55.4)	50 (46.2)	54 (32.2)	57 (29.8)	64 (16.4)	64 (10.7)	79 (9.6)	74 (6.2)	69 (3.2)	86 (3.9)
XII.	2 (100.0)	2 (7.1)	2 (4.2)	2 (3.8)	3 (2.8)	2 (1.2)	2 (1.2)	3 (0.7)	4 (0.6)	3 (0.4)	5 (0.4)	6 (0.3)

IV

NATIONAL SYSTEM OF EDUCATION FOR INDIA

TEACHERS

The most important part of every system of education is its human element - students, teachers and administrators - which may be said to form its 'nervous system' as against the pattern of school and college classes which forms the 'skeleton' and curricula (inclusive of the techniques of teaching and evaluation) which form its 'flesh and blood'. In the preceding paper, we discussed the problems relating to students. In this paper, which is the fourth in the series, we shall discuss problems relating to teachers while problems relating to administrators would be dealt with in the next.

II

Upgrading the Qualifications of Teachers

2. In the preceding paper, it was pointed out that the principal object of the educational reconstruction to be attempted during the next three plans would be to deepen the content of education: to reach the standard of the present M.A. degree at the end of the B.A. (Hons) course and also to build up, in the rising generation, all those skills, interests, attitudes and values which are essential for the task of national reconstruction. It was also pointed out that this deepening of the content involves a radical reorganization of all existing curricula and techniques of teaching and evaluation. If this 'core' of the proposed educational reconstruction is to be put across in practice, we shall need teachers of a much better quality from every point of view - teachers with better general education and professional training and a deeper sense of duty. It is on our capacity to get such teachers that the entire success of the proposed programme of reconstruction will depend.

3. It has to be remembered that the problem of teachers

in India is both quantitative and qualitative. Expansion is now taking place so rapidly in all sectors that the number of teachers required is about doubled in a period of ten years. For instance, it will be seen from the Annexure No. I given at the end that the total number of teachers in all types of educational institutions in India was 803,521 in 1950-51 and that it increased to 1,508,134 in 1960-61.

By 1970-71, the total number of teachers in the country would be about 3 million and by 1980-81, it would rise still further about to 6 million. In the next three Plans, the total number of teachers is, therefore, expected to rise from about 2.2 million at the end of the third plan to about 6 million at the end of the sixth plan which implies an average annual increase of about 250,000 teachers to cope up only with new enrolment. In addition, we will need a very large number of teachers for replacements due to retirement or death or resignation - this number is expected to increase from about 90,000 a year at the end of the Third Plan (about 4 percent of the total teacher-force of 2.2 million) to about 240,000 a year at the end of the sixth Plan (at 4 per cent of the estimated teacher-force of 6 million) or at an average rate of 160,000 teachers a year. These are very formidable numbers indeed and unless careful steps are taken, right from now, the very size of the additional teaching force required would dilute its quality beyond redemption.

4. Formidable as these numbers are, the quality of these teachers is of even greater importance. The point is well expressed by Dr. D.S. Kothari in what he describes as the 'feed-back' process. "Education", he says, "provides a good illustration of the 'feed-back' process. If things are so organised that every year an appreciable number of our best young men join as teachers in our schools and colleges - please do not forget the schools - we shall have a continually

escalating improvement in education. On the contrary, if we plough back into our schools and colleges young men with less than the average ability, standards would rapidly (exponentially) go down as years roll by. The key to a continuous improvement of standards is to feed back into the teaching profession every year a reasonable proportion of the best young men turned out by the universities." This is perfectly true no doubt; but we may add one supplementary rider to this observation: It is not enough to raise the standards only of those teachers who are newly recruited. A teacher once recruited remains in service for about 30-35 years; and if the effort to raise the level of teachers is confined only to new entrants, it takes an unconscionably long time to improve the level of the teaching force as a whole. A good illustration of this is provided by what is happening in India in the post-independence period at all stages of education, and particularly at the primary stage. In 1950-51, as many as 89 per cent of the teachers in primary schools were non-matriculいたes. In the last fifteen years, new recruitment to the cadre of primary teachers is mainly restricted to matriculates - exclusively in some States and predominantly in others - so that about 75 per cent of the new recruitment of primary teachers is that of matriculates only. In spite of this progressive policy, the proportion of matriculates in the total teaching force in primary schools has only risen from about 11 per cent in 1950-51 to about 35 per cent in 1964-65 and it would easily take another 20-25 years to raise the minimum qualifications of all teachers at this stage to the matriculation level. We must, therefore, have two programmes simultaneously in operation if the level of the teaching force as a whole is to be raised within the short time that we have at our disposal - 10-15 years at the most: (1) to prescribe higher and better qualifications

for new entrants; and (2) to provide adequate facilities and incentives to teachers in service to raise their qualifications to the newer and higher standards expected of them.

While the first of these two programmes has received some attention in the first three plans, the second has been almost entirely neglected. We will have to rectify this mistake and emphasise both the programmes simultaneously in the next three Plans.

5. The first essential step in upgrading the qualifications of teachers is to prescribe the minimum qualifications of general education and professional training which are consistent with the upgrading of curricula proposed earlier in the preceding paper. What has happened in the past is that the curricula have been upgraded, on an ad hoc basis, from time to time: But the corresponding upgrading in the qualifications of teachers has not been simultaneously attempted with the result that no real deepening of the content of education has actually taken place. This mistake will have to be avoided in the next three plans; and one of the first measures that we will now have to take is to prescribe appropriate qualifications for the teachers at different stages of education which would enable us to achieve the type of the deeper content which we have in view. In this context, the following is suggested as a basis for consideration:-

(a) Primary stage (Grades I-IV): Completion of the secondary school of ten years followed by a special training course of two years. In addition, encouragement

*This should really be a course of three years. In many States, the primary teachers receive eleven years of general education and two years of professional training at present. An upgrading is, therefore, possible only if we have a three year course after a ten year school. In many areas, however, this return will have to await the fifth Plan or even the sixth. What has been suggested above is, therefore, the very minimum which should be reached by the end of the Fourth Plan in all areas. Wherever possible, the duration of the training course should be raised to three years right from the start and it should be raised in all areas before the end of the sixth Plan.

should be given to trained graduates to work in primary schools wherever possible. It should also be a convention that the post of Headmasters of bigger primary schools (with more than 200 children) should ordinarily be given to trained graduates, the only exception being that a certain proportion of these posts should be given to non-graduate teachers who have done exceptional work.

(b) Middle school stage (Grades V-VIII): No person who has not completed a secondary school of ten years and further received professional training of two years should be allowed to teach at the middle school stage. The Headmaster of a middle school should invariably be a trained graduate.

Wherever possible, an attempt should be made to increase the proportion of graduates working at the middle school stage, the target to be reached by 1980-81 being to have at least 50 per cent of the teachers at the middle school stage as graduates.

(c) Secondary stage (Grades VIII-X): The Headmaster of the School should, as a rule, be a Master's degree holder with training of one year. Among the other teachers (except those for special subjects like Crafts, Physical Education, Drawing, Music etc. for which separate qualifications would be provided) at least one-third should be holders of Master's degree (with training) and the others should be trained graduates.

(d) Higher Secondary Stage (Classes XI and XII): The teachers at this stage should all be holders of the Master's degree and should all be trained.

6. There is another point which has to be noted here. We have to make an attempt to get as many first and second class persons as teachers at the secondary and higher secondary school stage as possible. What happens at present is that, although most of the teachers at the secondary

stage satisfy the minimum qualifications laid down of being trained graduates, an overwhelming majority of them are third class. An attempt to improve this situation should be made in the next three Plans.

7. Still another point has to be noted with regard to the teachers at the secondary (including higher secondary) stage. What happens at present is that they generally satisfy the minimum qualifications prescribed, viz., being trained graduates; but in actual practice, they are required to teach subjects which they had not at all studied for their degree. For instance, a graduate in philosophy is required to teach English, or History or Geography or even Science. The subject knowledge of such teachers, therefore, is generally equal to that of a matriculate or a little more and hence the standards of education suffer. This is particularly so in respect of the three scarcity subjects - English, Mathematics and Science. It would be an interesting study to find out the correlation between (a) the subject which the teachers in the secondary and higher secondary schools had taken up for their degree, and (b) the subjects they happen to be actually teaching in the schools. No such study has yet been carried out on a large-scale. But from the small studies carried out here and there, it appears that English is very largely taught by teachers who had never taken it as a special subject for their degree (In a recent study in Maharashtra State, it was found that there were only 13 teachers in all the Government Secondary Schools (about 280) who had taken English for their B.A.). The situation with respect to Mathematics and Science is also very bad,

* There has been no study of this problem also and it may be worthwhile to carry out a small investigation to show the class obtained by teachers in secondary schools in their B.A. and M.A. examinations.

though it may not be so bad as in the case of English. Geography is mostly taught by teachers who never studied it for their degree; and so on. This situation arises from two reasons: (1) the subjects taught at the university stage do not bear any close relationship to those taught at the secondary stage; and (2) the State Governments have not found it practicable to insist on a rule that a teacher in a secondary school must only teach that subject which he had taken for his degree. It is, however, obvious that this situation will have to be remedied in the future.

8. In so far as higher secondary schools are concerned, it will be necessary to insist that the teachers should teach only those subjects which they had taken for their degree. With regard to secondary schools, however, several practical difficulties will arise in implementing such a rule. It is, therefore, often suggested that the following alternative methods may be adopted:-

(a) The duration of the training course should be increased to two years, the first year being spent on imparting better subject knowledge and the second on the methodology of teaching;

(b) The American system of an integrated teacher education programme for secondary schools should be adopted in India on a large scale, on the pattern of the Regional Colleges of Education established by the National Council of Educational Research and Training; and

(c) By instituting diplomas in all the secondary school subjects. The duration of such diploma courses should be one year and it should be possible to take them, not only by attendance at a college or a University Department, but also through correspondence. The standard of attainment with regard to subject knowledge at the end of the diploma course should, by and large, be equal to that attained at the end of the degree stage.

9. Whichever of these three methods may ultimately be adopted, one essential condition for their success is the prescription of a rule that secondary teachers would be allowed to teach only those subjects in which they have an adequate subject knowledge. The prescription of such a rule alone would create the necessary motivation on the part of teachers to acquire such qualifications and would also induce the managements of the schools to select teachers on this basis.

10. I do not want to discuss the relative merits of the three proposals stated above. These will be examined in detail by the Task Force on Teacher Education. Broadly speaking, I am not in favour of the first. Training colleges are not equipped at present to impart an adequate standard of content knowledge in the different school subjects and to equip them to do so would be extremely costly and probably not very efficient. I do think that there is any large scope in India for the American system of integrated teacher training programme for secondary schools. Besides, this is a costly method of preparing the teachers and the numbers required for our schools are so large that we may not be in a position to adopt it on a sufficiently large scale. * To my mind, therefore, the only practicable solution of the problem is to institute diploma courses in the various subjects included in the school curricula. This would be the quickest and the cheapest way out of the present situation, especially if a programme of correspondence education in them is developed for teachers in service. I also do not think that it will be less efficient than the others. Whatever the ultimate decision on this

*This experiment is now going on in the Kurukshetra University, the regional colleges of education and the Mouni Vidyapeeth at Gargoti. An evaluation of its results would be extremely helpful.

subject may be, I do feel that the Commission will have to address itself seriously to this problem, viz., the fall in standards of secondary education because, by and large, the average teacher does not have adequate subject knowledge of what he is teaching and the manner in which this situation can be improved.

10. Programmes for Securing the Needed Teachers: Once the minimum qualifications expected of teachers at the different stages of education to suit the revised and upgraded curricula are decided upon, the next problem would be to adopt measures to see that we do get such teachers. This will involve a number of measures such as the following:-

(a) To improve the remuneration, old-age benefits, and conditions of service with a view to attracting a better type of person to the profession;

(b) To provide a programme of in-service education to upgrade the qualifications of teachers in service to the standards prescribed;

(c) To estimate the number of additional teachers required at different levels, both for replacement and for new enrolment;

(d) ^{Wherever necessary,} to expand programmes of general education (or to initiate new ones) to increase the output in these programmes to a level which would provide the needed teachers at the different stages of education; and

(e) To expand and improve the training programmes at all levels.

Of these five programmes, the first and the fifth are of very great importance and raise a number of complicated issues. These will, therefore, be examined in detail in the following sections. In this section, we shall deal only with the other three - the second, third and fourth.

11. Upgrading the Qualifications of Teachers in Service:

Once the upgraded qualifications for teachers are fixed, it will be easy to determine the extent to which teachers in service fall short of them and also to devise and cost the different programmes needed to raise them up to the required level. Once this is done, - a concrete, well-planned and phased programme of action should be prepared on the following lines:-

(a) A definite target date should be fixed, say the end of the fifth Plan, by which all teachers in service - barring a few understandable exceptions - should attain the upgraded qualifications.

(b) A three-fold programme of facilities, inducements and penalties should be drawn up to reach the target laid down in (a) above. The facilities will include the provision of correspondence courses, grant of study leave or stipends to teachers for regular attendance at institutions (wherever necessary) and the expansion or establishment of institutions needed for the purpose; the inducements should include the provision of advance increments, or grant of higher scales of pay as soon as the upgraded qualifications are obtained; and the penalties should include disallowance of future increments or withholding of higher promotions unless the new qualifications are acquired. The details of these programmes will vary from stage to stage and also from State to State. But the entire success of the plan will depend upon the care with which a combined scheme of facilities, inducements and penalties will be devised and implemented for this purpose.

(c) The position with regard to new teachers is comparatively less complex. In recruiting them, every

* For instance, this need not apply to teachers of the age of 45 and above who would mostly retire at the end of the fifth Plan.

effort should be made to see that teachers with sub-standard qualifications are not recruited. This is a major administrative step where things often go wrong at present and it will be essential to examine the existing recruiting procedures for teachers at all levels and in all States and to take steps to see that they are made as fool-proof as possible. This will be one of the important studies which the Commission will have to undertake. Where the recruitment of a sub-standard teacher is unavoidable, rules should be framed to the effect that these teachers should attain the prescribed qualifications within a certain time, and at any rate, before confirmation. If such penal clauses are provided on the one hand and adequate facilities are extended on the other, the new recruits will either have the upgraded qualifications initially or will acquire them soon after their entry into service.

12. Estimating the Requirements of New Teachers: The next step in the programme is to estimate, as realistically as possible, the requirements of new teachers with the upgraded qualifications for the next ten or fifteen years. It is only on the basis of such estimates that plans to secure the needed number of teachers can be prepared and implemented. But unfortunately, this is, by and large, a neglected subject; and in fact, so little attention has been given to it in the first three Plans that it may be said, without any fear of inaccuracy, that we have planned expansion of educational institutions on the assumption that the ordinary market laws of demand and supply will fully take care of the teacher problem. But this does not happen. In fact, it is a simple exercise in mathematics to show that our plans to establish higher secondary schools had no relationship at all to our plans of expanding post-graduate education from which alone the teachers for these schools could come.

We must put amend to this state of affairs and see to it that (1) we estimate our teacher requirements as realistically as possible for the next ten or fifteen years and (2) also ensure that the necessary steps to get them are duly provided for.

13. Taking the first of these issues, the following general observations can be made:-

(a) There have been no authentic and reliable studies of the 'replacement rate' or the proportion of teachers which has to be replaced annually owing to retirements, deaths, or desertions. The general convention is to take it at 4 per cent of the total teacher force. But it is obvious that the rate varies from one stage of education to another and from one State to another. Even in the same state, it varies from time to time and from area to area (teachers desert more in rural areas, forest habitations, tribal areas, etc. than in towns or road-side big villages), and is also different for men and women. The studies are not difficult to make and do not require much time or expense. It would be worthwhile to examine the problem in some detail before the Commission makes its own calculations. What is even more important, the Commission will have to emphasize the fact that our administrators today are not at all research-oriented, that they still believe in solving all problems in a rule-of-thumb manner, and that they still govern on the assumption that the 'intuition' and 'experience' of senior officers is infallible. It will also have to suggest concrete measures regarding the manner in which research could be built into our educational administration.

(b) At the elementary stage, the number of teachers needed for new enrolment will obviously depend upon the rate of expansion to be assumed (this, in its turn will

depend upon the date by which we shall fulfil the directive of Article 45 of the Constitution and will vary from state to state) and upon the pupil-teacher ratio. It will also have to be noted that, among elementary teachers, mobility is not very great and the problem may have to be examined with the district as the unit. For instance, about 10,000 students passed the matriculation examination last year in Orissa. But out of its 13 districts, Puri had 3,000 of these and Phulbani had only 931. It is, therefore, next to impossible to get matriculate teachers for the primary schools in Phulbani (which is essentially a tribal district). Secondly, since it is desirable to have women teachers at this stage (at least at the primary level), the requirements of women teachers will have to be separately estimated.

(c) At the secondary stage, the teaching is subject-wise and we have to estimate the teachers required separately for each important subject. At the very best, we will have to estimate the total requirements of teachers - separately for men and women (most institutions at this stage will not have co-education) - and also the requirements of teachers for the important subjects such as English, Science, Mathematics, physical education and craft. No attempt in this direction has yet been made and we have not even evolved a theoretical method of doing so. This is one area in which the Commission will have a significant contribution to make.

(d) In the training institutions, not only is there an urgent need for expansion, but the upgrading of qualifications of teacher educators is very badly indicated. There also, we have not made any estimates of the requirements of teacher-educators with the result that the sheer dependence on market laws has led to deterioration of standards. For instance, it will not be too much to assume that there should be at least

one Ph.D. in a training college (we have about 300 of them now). But the data recently collected shows that we could produce only 88 Ph.Ds in education in all Indian Universities between 1937 and 1961 ! This is another area in which the Commission can make a significant contribution.

(e) In higher education, there is need to estimate the requirements of teachers, particularly for the post-graduate stage and in certain significant and important subjects and to plan for them. The same observations apply to technical and agricultural education.

It is not proposed to go here into the detailed calculations for estimating the teachers required at different stages of education. * The main purpose here is to highlight the major problems involved. The detailed estimates would be prepared, to the extent necessary, by the various task forces.

14. Planning to Get the Needed Teachers (Expansion of General Education): Once the estimates of additional teachers required during the next ten or fifteen years are made (these will include teachers needed for replacement as well as those for new enrolment), it will soon be noticed that, in order to get these teachers, we will need, not only an expansion and improvement of teacher-training facilities (this is a commonly recognised need) but also a considerable expansion of the post-graduate stage. This is not a commonly recognised need and, therefore, needs same explanation.

Taking the higher secondary and secondary schools as an illustration - the argument really applies to all sectors - we can easily see that we shall need a large number of M.As and M.Sc.s on the basis of the upgraded qualifications and that a fair proportion of them will have to be at least second class. Shall we get them?

Here two questions are really involved: (1) what is our

* This exercise will be attempted in the papers on perspective plans of educational development which are being prepared separately.

total output of M.As and M.Sc.s at present? and (2) what proportion of the M.As and M.Sc.s. coming out of our universities join the teaching profession? While the answer to the first question is available, there is no study of the second at all. From a few ad hoc rough studies I carried out, I found that about 18% of the B.As, 15% of the M.As and 10% of the M.Sc.s join the teaching profession at present. With the improvement in salaries, this proportion may rise somewhat. But it is still going to remain very much on the low side. It follows, therefore, that our total output of M.As and M.Sc.s. has to be considerably larger than our requirement of teachers. Judged from this point of view, it appears that the size of our post-graduate stage is very inadequate stage is very inadequate at present. As a specimen exercise, I calculated the output of M.As in English (with a second class) in one State. I found that it needed 50 teachers for colleges alone (the enrolment had increased by 8000 and we need one teacher for 160 students) while its total output of M.As with English (of all classes) was only 25! I am quite sure that similar conditions prevail in other States and in several other subjects as well. In fact, it is our weakness at the post-graduate stage that is really diluting standards all-round.

What is now proposed is - and this would be a significant departure from what happened in the first three Plans - that we should plan our expansion in higher education in such a way that we shall have no difficulty in getting all the teachers with upgraded qualifications that we need for our programmes of educational reconstruction.

* This is another important area in which the Commission can make a contribution.

15. Before leaving this subject, it is necessary to point out that what have been suggested above as 'upgraded' qualifications for the teachers of the next 10-15 years is not really comparable with what obtains now in advanced countries. In U.S.A. for instance, the minimum qualifications for a primary teacher are a liberal arts degree with training and even these high qualifications are being upgraded very rapidly. The programme suggested for the next 10-15 years in India is, therefore, very modest. However, if we desire to keep abreast, we shall have to accept the need to continually upgrade the qualifications of teachers and to create a built-in mechanism in our system which will keep this upward striving continually going on. This is another important area which the Commission will have to examine.

III

III

Remuneration: (salary, allowances, and old-age benefits)

16. It has to be remembered that there is a close and intimate relationship between (1) the deepening of the objectives and content of education, (2) the upgrading of the qualifications of teachers, (3) the increase in their remuneration and (4) the expansion of secondary and higher education. This is seen clearly in the history of education in advanced countries. Early in the Nineteenth century, the standards expected in school education were comparatively very low; the supply of persons who had received secondary or higher education was also meagre; and the average remuneration of teachers was poor. Consequently, the average school teacher was a person of humble attainments. During the last 160 years, almost a revolution has taken place in all these matters. The salaries of school teachers were gradually raised until they became fairly comparable with those of

the university teachers or persons in other comparable professions; and the supply of persons who had received secondary or higher education was immensely increased owing to the expansion of second and third level education. Consequently, people with much better qualifications were both available and willing to work at the school stage. The qualifications of teachers were thus upgraded to a very great extent and the standards in education - both in objectives and content - were correspondingly raised. Similar developments are taking place in India also. A hundred years ago one could not have even dreamt of employing a matriculate as a teacher in an elementary school; today, it is about to become the minimum qualification for elementary teachers. Even at the beginning of the present century, graduates working in secondary schools were very few; today a degree is becoming indispensable for a teacher at the secondary stage. This has been possible, partly because of the increase in the salaries of teachers, but largely because of the expansion of secondary and higher education. There is also some deepening in the content of education. However, the main weakness of our system, which has been broadly moving on the lines similar to the developments in the west, are four:

(1) There has been no proper planning between these four inter-related variables, viz., the objectives and content of education, the qualifications of teachers, their remuneration and the expansion of secondary and higher education;

(2) The overall rise in the remuneration of teachers has not been adequate, a good deal of it is off-set by the rise in prices, and the differences between the remuneration of teachers at different levels of education are still far too great;

(3) The pace at which the objectives and content of our education is being deepened is far too slow and as there has been an immense spurt in this matter in the western countries after the second world war, the gap between our standards and those in the West has widened very greatly, especially in the post-independence period; and

(4) There has been no determined effort to upgrade the qualifications of teachers and to face all its implications.

It is these mistakes of commission and omission which will have to be remedied in the next three Plans.

17. The average annual salaries of teachers in different types of educational institutions in 1950-51 and 1960-61 are given below:-

TABLE NO. 1 - TEACHERS AND THEIR SALARIES

Types of Institutions	Average annual salary of a teacher in			Percentage of increase from	
	1950-51	1955-56	1960-61	1951 to 1961	
	Rs.	Rs.	Rs.	Amount	%
1. Universities	3758.4	5456.3	547.6	1716.2	45.7
2. Research Institutions	9794.6	7525.7	9027.0(-)	767.6(-)	7.8
3. Arts and Science Colleges	2696.1	3070.0	3658.9	962.8	35.7
4. Professional Colleges	3947.9	3860.6	4236.5	288.6	7.3
5. Special Educational Colleges	1655.5	1804.3	2268.7	613.2	37.0
6. High/Higher Secondary Schools	1258.3	1426.6	1681.3	423.0	33.6
7. Middle Schools	682.4	808.8	1057.5	375.1	55.0
8. Primary Schools	544.5	651.5	872.8	328.3	60.3
9. Pre-Primary Schools	914.3	769.5	924.7	10.4	1.1
10. Vocational Schools	1704.9	1568.9	2040.9	336.0	19.7
11. Special Education Schools	662.4	771.8	595.0(-)	67.0(-)	10.1
Total for all stages	769.4	919.1	1217.6	448.2	58.3

18. Some interesting points arise from these statistics.

(1) Taking all types of teachers together, the average annual salary of a teacher in India in 1950-51 was only Rs.769.4 which is 2.7 times the then national dividend of Rs.284. By 1960-61 this had increased to Rs.1217.6 which is 3.7 times the then national dividend of Rs.330. It appears, therefore, that the improvement in the remuneration of teachers has been greater than that in the national dividend - the former has increased by 58 per cent while the latter has increased only by 16 per cent. It is, therefore, evident that the nation has tried to undo, to some extent at least, the injustice done to teachers in the past.

(2) The cost of living index increased during this period by about 24 per cent only - it was 124 in 1960-61, the base year being 1949 as 100. The average increase in salaries of teachers has, therefore, been about 2½ times the increase in the cost of living.

(3) It will be seen that the increase of salaries in the different categories of teachers varies considerably. The largest increase in salaries (60.3 per cent) has taken place at the primary stage and the next largest increase (55 per cent), at the middle school stage. The lowest categories of teachers have, therefore, been benefited to the maximum extent in the first two Plans. This is as it should be. There has been a slight decrease in the average remuneration of a teacher in research institutions - due probably to the creation of more posts at lower levels - but this is not very material as the average remuneration

* The only exception to this laudable policy is the actual decrease that has taken place in schools of special education and the almost stationary position maintained in pre-primary schools.

is very high at this stage. For the same reason, the small size of the increase in the salaries of teachers in professional colleges also need not worry us.

(4) There has been a substantial increase in the salaries of teachers in Universities, Arts and Science Colleges and special education colleges, thanks mainly to the efforts of the University Grants Commission.

(5) It will be seen that the increase in the salaries of secondary school teachers has been the least, whether in comparison with primary and middle school teachers on the one hand or the college and university teachers on the other. If, combined with this, we also take into consideration the fact that the average salary of secondary teachers reported here is very often a 'paper-salary' and that he actually receives much less in practice, there is no doubt that the secondary teacher has been given, by and large, a raw deal in the post-independence period.

(6) The proportion between the lowest salary (that of primary teachers) to the highest salary (that in research institutions) was as high as 1:18 in 1950-51. This decreased to 1:10.4 by 1960-61. While this trend is welcome, it may still be pointed out that the range of difference between the lowest and the highest salaries of teachers is much greater in India than in the advanced countries.

(7) The over-all salaries, low as they are, show considerable variations from State to State. (Please see Annexure II) 19. There would be no difference of opinion on the issue that the remuneration of teachers has to be increased still further. But in considering any proposals in this regard, a number of very important questions arise and these would have to be carefully looked into before any decision is taken. For instance, we may have to determine the relationship between the national dividend and the average salaries

of teachers at different levels. In the western countries, the national dividend is high. Consequently, the average salaries of teachers at different levels, although they are several times better than in India, are still within reasonable limits of the national dividend. For instance, in U.S.A. the national dividend now is about \$ 2800 per year. The average salary at the university stage is about \$ 14,000 or 5 times the national dividend. In the developing countries on the other hand, the situation is entirely different. In India, for example, the average salary of elementary teachers, low as it is, is more than 2.5 times the national dividend and that of the teachers in research institutes is more than 25 times the national dividend. The contrast may be summed up by saying that the teachers in advanced countries are paid much better than in the developing countries, but they do not show wide differences between themselves, nor are they far above the average national dividend. In the developing countries, on the other hand, the teachers are paid comparatively very low wages, but the different categories of teachers show very large variations in their remuneration which, on the whole, is much higher than the national dividend.

20. In India (and this applies also to most other developing countries) this situation has arisen out of historical factors. Under the British rule, the salaries of the superior Government servants were fixed, not in relation to the national dividend of the Indian people, but with reference to the average salaries prevailing in England. Consequently, the scale of salaries of the superior Government servants (who were mostly Englishmen) came to be far above the economic capacity of the Indian people. When Indians

* A comparative study of salaries in different countries from this point of view would be very interesting.

were recruited to Government services, it was not politically expedient to make any marked distinctions between them and the English people and the principle of equal pay for equal work had also to be admitted when both Indian and British officers belonged to the same cadre. Hence the salaries of government servants as a whole came to be fixed at a much high level than what the country could afford. Such a position did not create many difficulties so long as the total volume of governmental services was limited. But when it began to expand, two expedients were devised to reduce the burden of high salaries. The first was the creation of local bodies which fixed their scales of pay at a level lower than that of the employees of the Central and State Governments; and the second was the encouragement of voluntary enterprise under which the scales of pay adopted were generally lower than even under the local bodies. While these expedients did achieve their primary objective of reducing the burden of high salaries on the public exchequer, they had the unwelcome consequence of creating castes amongst different categories of public servants and particularly amongst teachers. In all these categories, however, the basis for fixing the scales of pay was, not the Indian tax payers' economic capacity, but the salaries paid to the British officers in the pre-independence period and those paid to services like I.A.S. in the post-independence period. In this attempt to hitch our 'salary-wages' to distant stars, the problem of the teachers' salaries falls between two stools. On the one hand, it creates a good deal of dissatisfaction amongst teachers because they compare their salaries, not with the economic capacity of the people, but with the salaries of the senior civil servants, and find them very low. On the other hand, it becomes more and more difficult to increase the salaries of teachers, especially

as the demand for education has begun to develop very fast.

21. Probably, the only rational way out of the situation is to revise all salary structures and base them, not on the historical legacies of the past, but on a rational considerations of our needs for the services and the economic capacity of our society to bear the financial burden. This will imply a substantial downgrading of all salaries and a drastic levelling down of all other incomes. Gandhiji's idea that the Congress Ministers should not draw a salary of more than Rs. 500 p.m. was a moral approach to this issue and signified his conclusion that this country could not afford adequate public services on their present scales of pay. But like all ideal solutions, this approach is good for discussion but almost impossible to implement. On the other hand, if we start with very high salaries for I.A.S., Engineers, Doctors, etc., the salaries of university teachers would have to be made comparable to them which, in its turn, will require considerable upgrading of the teachers' salaries at lower levels. That is not possible in the present state of our financial resources and at the present level of the public demand for education. This probably is the uneviable dilemma that we have to face, at least in the transitional period till the national dividend is raised to an adequate level.

22. The second important issue refers to the three great 'castes' among the teachers - the teachers in Government service, those in local body service, and those in private service - which, for purely historical reasons, had differing and descending scales of remuneration. Is there any justification for the continuance of this discrimination? Certainly not. Fortunately, the tide started swinging against this discrimination soon after independence and

one of the major achievements of the post-independence period in this sector is the acceptance, in principle, of equality of remuneration for teachers irrespective of the management under whom they might be serving. The qualifications which are prescribed for teachers depend only on the type of the educational institutions in which they serve and are independent of the management conducting the institution. Similarly, the work that the teachers are required to do and their responsibilities are also the same and depend only upon the type of educational institution and not on the management. It, therefore, follows that the remuneration and old-age benefits which are provided to teachers working in all types of educational institutions - government, local authority or private - should also be the same. Unfortunately, this principle has not yet been implemented by all the States, especially with reference to old-age benefits. This will be seen from the following analysis of the existing position:-

(a) Remuneration: In so far as remuneration is concerned, parity has generally been maintained but for a few major exceptions: (1) In Kerala, the teachers in government schools get a house rent allowance of Rs.7/- per month which is not given to teachers in private schools, (2) In U.P. and in Bihar, the scale of pay of teachers under all the different types of managements is the same but there is a considerable difference in the dearness allowance paid. The teachers in government schools get dearness allowance at a rate which is much higher than that paid to teachers in local authority or private schools and the difference is sometimes as high as Rs.20-30 per month. It is in these two States mainly that there is a serious discontentment amongst the teachers for the discrimination thus shown. The problem

becomes all the more important and difficult because the number of teachers working in government institutions in these States is very small and the bulk of the teachers serve in private or local authority institutions. (3) In Orissa and West Bengal, there is a slight difference in the scale of pay given to the teachers in government schools and that given to teachers in non-government schools. There is no dearness allowance in West Bengal but in Orissa, there is a small discrimination between the dearness allowance paid to teachers in government schools and that paid to teachers in local authority or private schools.

(b) Old-Age Benefits: With regard to old-age benefits, the differences between the three categories of teachers are far greater. The teachers in government service get a pension at $\frac{3}{8}$ of their retiring salary and also a gratuity. Recently, the Central Government has introduced a Family Pension Scheme for its employees and the same is likely to be extended to employees of the State Governments in the near future. This will improve the provision of old-age benefits to teachers in government schools still further. In the local authority and private schools, however, the teachers get old-age benefits which are much inferior to those provided for teachers in government schools. This will be seen from the following statement:-

(1) Andhra Pradesh: The teachers in local authority and private schools get pension at $\frac{1}{4}$ of the retiring salary. They are also required to subscribe to a provident fund at 6 per cent of their salary and an equivalent amount is contributed by the Government and the Management put together.

(2) Assam: The teachers in non-government service are entitled only to a provident fund. In several private institutions, especially at the elementary stage, there is

no provision even for a provident fund.

(3) Bihar: Teachers in local authority and private service are entitled only to a provident fund. A proposal to introduce the Triple Benefit Scheme on the lines of Madras State is under consideration of the State Government.

(4) Gujarat: Teachers in local authority service have been given the rights of pension analogous to those given to teachers in government service. For teachers in private schools, however, only a provident fund is provided. At the elementary stage, there are many schools where even provident fund is not provided.

(5) Jammu & Kashmir: Most of the teachers are in government service. In private institutions, provident fund only is provided.

(6) Kerala: There are no local authority schools. For teachers in private schools, the Triple Benefit Scheme has been introduced.

(7) Madhya Pradesh: The large proportion of teachers is in government service. For teachers in private schools, only provident fund is provided. In some schools at the elementary stage, even this provision does not exist.

(8) Madras: For teachers in local authority and private schools, a Triple Benefit Scheme has been adopted. Under this, pension is provided at one-fourth of the retiring salary. In addition, there is provision for a contributory provident fund at 6 per cent of the salary and a compulsory insurance. The premia for insurance are, however, totally paid by the employee and there is no contribution from the State or employer.

(9) Maharashtra: Teachers in local body service have been given the same benefits as have been given to teachers under Government. For teachers in private schools, only provident fund is provided. For most schools at the primary stage, even

this facility does not exist.

(10) Mysore: For teachers in local authority and private schools, the Triple Benefit Scheme on the lines of Madras State has been adopted.

(11) Orissa: For the teachers in local authority and private schools, only provident fund is provided.

(12) Punjab: There are no local authority schools. For teachers in private schools, only provident fund is provided.

(13) Rajasthan: The teachers in local authority service have been given the same old-age benefits as are available to government service. For teachers in private schools, only provident fund is provided.

(14) Uttar Pradesh: For teachers in local authority as well as private schools, only provident fund is provided.

(15) West Bengal: For teachers in local authority or private schools, only provident fund is provided.

It will be seen from the above statement that the old-age benefits provided for teachers in local body and private schools are generally inferior to those provided for teachers in government schools. This discrimination has been a major cause of great dissatisfaction amongst the teachers.

23. This discrimination between the three different categories of teachers in respect of remuneration and old age benefits has to be done away with and it implies that the remuneration and old age benefits paid to teachers in Government schools should be automatically extended to teachers in local authority and private schools also.

This general policy may be adopted as the basis of the improvement of the conditions of teachers in the next three Plans.

24. The third important issue relates to the difficulties in the remuneration paid to different categories of teachers working in all types of educational institutions - from the primary schools at one end to the universities at the other. The inexisting wide range of difference in this field has to be narrowed down considerably and this implies a large increase in the salaries at lower levels - the primary and middle school teachers and to a certain extent, even the secondary school teachers. The financial implications of these proposals, however, are frighteningly large.

25. The fourth important issue is whether there should be common national scales of pay for all teachers in the country. At present, they vary from State to State and consequently there is a very great demand from the teachers organizations to the effect that common national scales should be adopted instead. Since the establishment of the University Grants Commission, national scales of pay are being adopted at the university stage. On the one hand, this pressure is tending to climb down to the secondary and elementary stages; on the other, there is a great resistance to the adoption of national scales for them, partly on financial grounds (because the adoption of national scales means the extension of the highest scale in any part of the country to all the other parts) and partly because the adoption of national scales of pay for teachers will ultimately imply the adoption of national scales for all government servants. This is another important problem which the Commission will have to examine.

26. What matters to the exchequer, from the financial point of view, is the recurring cost per pupil; and this gets practically determined by two major decisions that are taken: (1) the total expenditure to be incurred on education; and (2) the number of children to be enrolled. After taking all the relevant factors into consideration, it should be possible to determine the extent to which the costs per pupil could be raised, say by 1980-81, at different stages of education. This would be an

important problem to which the Commission will have to address itself. Subject to the cost per pupil which thus becomes determinate and which the country can afford, no financier has any objection to fixing the salaries of teachers as high as possible. But here two other variables come into play : (1) the pupil-teacher ratio; and (2) the proportion of non-teacher costs to teacher costs. Without affecting the cost per pupil, it is possible to provide higher remuneration to teachers if (1) the pupil-teacher ratio is increased, or (2) the non-teacher costs are reduced. Unfortunately, there is not only little or no scope for reducing the second; and in fact, it will have to be largely increased. For instance, the following table gives the proportion of non-teacher costs to total recurring costs in 1950-51 and 1960-61:-

Table No. II - Proportion of the Expenditure on salaries to total recurring expenditure at Different Stages of Education.

Type of Institution	Percentage of expenditure on salaries to total expenditure	
	1950-51	1960-61
1. Universities	23.6	21.6
2. Research Institutions	46.1	20.6
3. Arts & Science Colleges	57.6	62.2
4. Professional Colleges	45.9	48.0
5. Special Education Colleges	67.3	63.5
6. High/Higher Secondary Schools	69.1	72.3
7. Post Basic Schools	-	76.7
8. Middle Schools -		
Basic	83.8	86.5
Non-Basic	75.6	84.5
9. Primary Schools -		
Basic	42.1	83.4
Non-Basic	84.9	89.4
10. Pre-Primary Schools	66.1	63.1
11. Vocational Schools	53.5	45.4
12. Special Education	47.4	78.3
Total	68.4	72.0

27. Two things can be noticed from these statistics:

(a) The first is the progressive decrease in non-teacher costs. In 1950-51, the salaries of teachers formed about 68.4 per cent of the total recurring expenditure on education which implies that the non-teacher costs formed about 31.6 per cent of the same. In the first two Plans, the proportion of expenditure on salaries has increased to 72 per cent implying thereby that the proportion of non-teacher costs has gone down to 28 per cent. This is not a happy state of affairs because an inadequate expenditure on non-teacher costs adversely affects the standards of education.

(b) It will be further seen that the proportion of non-teacher costs varies greatly from one type of educational institution to another. For instance, in the Universities, the salaries of teachers form only 21.6 per cent of the total expenditure, due mainly to the large proportion of administrative costs and the expenditure on examinations. In the Colleges of Arts and Science or of Special Education, the non-teacher costs form about 35 to 38 per cent of the total expenditure which is as it should be. At the primary and middle school stages, however, the non-teacher costs are very low - only about 11 to 15 per cent of the total expenditure, whereas they should be at least 30 per cent of the total expenditure and preferably, 40 per cent. We hardly provide any services in these schools except the teacher and the expenditure on buildings, equipment, ancillary services like school health or school meals or free supply of textbooks, is kept at the absolute minimum or is even non-existent. This situation will have to be considerably changed in the future.

28. The obvious implication of this situation is that the only major technique of providing a higher remuneration to teachers, without affecting the cost per pupil, is to increase the pupil-teacher ratio. But this is very strongly resisted on educational grounds. It is, however, felt that unless we can evolve some technique of raising the pupil-teacher ratio without adversely affecting the quality of education, the problem of providing a decent remuneration to teachers is not likely to be solved in the

near future. This is particularly of great significance at the elementary stage. The Commission will, therefore, have to address itself seriously to the problem of pupil-teacher ratio at all stages of education, and particularly at the elementary stage.

29. The problem of the remuneration of teachers depends ultimately on five factors : (1) the size of the national dividend; (2) the proportion of the national dividend spent on education; (3) the targets of enrolment; (4) the ratio of teacher-costs to the total recurring cost on education; and (5) the pupil-teacher ratio. It will, therefore, not be possible to take any decision on the problem of remuneration in isolation, unless the decision is properly related to all of these five factors. The details of this have been discussed in Annexure III. The Commission, which is required to prepare an integrated plan of educational development, will have to approach the problem against this wider background.

30. The problem of the structure of pay-scales for teachers also needs consideration. In India, we have a very large multiplicity of scales of pay for teachers, even at the same stage of education whereas, in the advanced countries of the West, there is a single scale of pay for all teachers at the school stage. We have, therefore, to consider how a common scale of pay could be adopted at the school stage or at any rate how the existing multiplicity of different scales of pay could be simplified and reduced to the minimum. Secondly, the structure of the existing scales of pay does not provide adequate inducements for good work or for outstanding teachers. It is, therefore, necessary to reconstruct these scales of pay so that those who improve their qualifications while in service or show outstanding work could be adequately remunerated, while those who do not show such progress could be suitably penalised. Thirdly, it may also be desirable to consider whether there should be a consolidated scale of pay

for all the work which a teacher does or whether separate allowances should be paid for certain tiresome tasks which are generally neglected, such as the correction of exercises. The minimum and maximum of the scales to be proposed for the teachers, the rate and amount of increments, the total period covered by the time-scale, the purpose for which additional allowances should be sanctioned, the additional remuneration to be paid for special tasks- these and other questions need a fresh look and examination. This is another area in which the Commission may make a valuable contribution.

31. The existing low remuneration of teachers has led to several evils. At the elementary stage, the teachers are very often compelled to take up some other occupation, on a part-time basis, to supplement their income - a factor which greatly interferes with their efficiency. The Postal, Cooperative and Panchayat Departments often thrust some other work on these teachers because no other suitable persons are locally available in rural areas to undertake it; and although this brings them some additional income, it does have an adverse effect upon their efficiency. At the secondary stage, the evil of private tuitions has increased very considerably, and teachers are often hankering for methods of earning additional money such as examinerships, writing of guide-books, invigilation at examinations, etc. These attempts do have certain demoralising and adverse effects upon their efficiency. Similar evils have also crept in at the collegiate stage to some extent. Side by side with attempts to improve the remuneration of teachers, therefore, methods of controlling these and other allied evils will also have to be considered.

32. Another important suggestion can be made in this context. There are several programmes which have to be taken up in educational reconstruction. For instance, adult illiteracy is to be liquidated; a very large programme of part-time instruction has to be evolved at the middle school, secondary and university

stages; a programme of youth welfare is also to be developed and so on. If the primary and secondary (or even college) teachers are regularly involved in these programmes, and an additional allowance is paid to them, two purposes would be simultaneously served : (1) the teachers would have obtained some additional remuneration which they badly need at present; and (2) certain important educational programmes could also be put across. This suggestion is not meant to replace the need for revision and upgrading of teachers' salaries: it is really intended to supplement such revision because, in the present situation, no revision of salaries will meet all the needs of the teachers. This is also another approach to the problem which the Commission will have to examine carefully.

IV

Conditions of Service

33. The conditions of service of teachers need a careful study and revision. Several issues will have to be examined in this context.

(a) The existing rules of recruitment are not always very happy and will have to be revised. The procedures for recruitment to government service are fairly satisfactory, but difficulties arise in respect of recruitment of teachers under local bodies. Here complaints about the selection of wrong persons, nepotism or corruption are fairly common. The conditions under private bodies probably ^{are} the worst. In many cases, recruitment is guided by family or caste considerations. In Kerala, the unemployment is so large that the situation has become scandalous and it is hardly possible for a teacher to get employment in a private school unless a pagri varying from Rs 800 to Rs 3000 can be paid. The methods of recruitment under Universities have also created several problems. The entire problem of recruitment of teachers will, therefore, have to be carefully examined by the Commission

with a view to suggesting procedures which will secure the best talent to the profession. A great precaution is necessary in this sector at present, especially because it is proposed to upgrade the remuneration of teachers substantially during the next three Plans.

(b) It is very difficult to get good teachers for institutions in rural areas. During the last few years, a tremendous expansion of secondary education has taken place in rural areas and now, several colleges are also springing up in the country side. The standard of educational institutions in rural areas is generally poor, mainly because good teachers are not attracted at present to work in rural areas. Unless this problem is satisfactorily solved, it will not be possible to raise the standards of education. The steps that would have to be taken to secure good teachers for rural areas should, therefore, be an important area for the Commission to examine.

(c) As was pointed out earlier that, in several areas, it is very difficult to get women teachers. Special steps will have to be taken for this and also.

(d) The problem of getting teachers for the tribal areas is very difficult. Even at the elementary stage, education among the tribals has not developed satisfactorily; and it has hardly made a beginning at the higher stages. This problem will, therefore, have to be carefully examined.

34. The problems which one has to face in improving the service conditions of teachers vary with their categories. For instance, in government service, the teachers have the best scales of pay, good provision for old-age and perfect security of service. But, by and large, we find a certain lack of efficiency and indifference to duty among Government teachers which arises, partly at least, from the very fact of an over-security in service. That is why the Government schools, which can command almost everything that is needed do not still show the best results. Under the local bodies, the personal factors become very important. Teachers

who can build up a good personal equation with the members of the local bodies can generally get away with anything, while those who cannot establish such a relationship are often made to suffer in spite of good work. Such a situation can ^{be} very demoralising. We have, therefore, to find out ways and means by which the morale of teachers working under local bodies can be improved. In private schools, there is an immense variation. In the good private organisations, which unfortunately are very few, very good conditions of service are maintained and the teachers have full freedom to work. In fact, the conditions in these institutions are even better than in government institutions. On the other hand, some of the worst conditions of service could be found in private institutions: wrong recruitment based on casteist or family considerations, insecurity of service and even dishonesty with regard to pay. In fact, it is the teachers working in private organisations that are building up an agitation to the effect that all private schools should be nationalised. In examining the role of private enterprise, the Commission will also have to consider carefully the conditions of service of teachers working under them.

35. Still another important point arises in this context. The teachers in private organizations are, by and large, worse off than teachers in government or local body schools. But they have one specific advantage: they can contest elections to the local bodies and legislatures. In States where Legislative Councils exist, some seats in them are reserved for teachers (other than teachers in elementary schools), under Article 171(3)(d) of the Constitution. The elementary teachers are agitating that the right to vote for these seats should be extended to them also. On the other hand, there is a demand that teachers in private schools should not be allowed to contest elections to local bodies or legislatures so that, even in this respect, there is a total parity between teachers of all categories and that

The Constitution should be amended to abolish the teachers constituencies in the legislative councils. A self-contained note on this subject is given in Annexure IV. This is an important problem for the Commission to examine.

V

TRAINING - PRE-SERVICE AND IN-SERVICE

36. The problem of the training of teachers has been, by and large, neglected in the post-Independence period so that our training programmes have remained poor, both in quantity and quality. But of late, there has been a sudden spurt of interest and a good deal of valuable work has been done in the field.

This includes three good studies :-

- (1) Report on Teacher Training by the COPP Team;
- (2) Report of the Study Group on the Training of Elementary Teachers in India, published by the Ministry of Education;
- (3) Report of the Baroda Seminar on the Training of Secondary Teachers in India, published by the NCERT.

As a result of these studies, some of the major weaknesses of the existing system have been identified. These include :

- (1) inadequacy of existing training facilities at all levels;
- (2) the short duration of the training course - for instance the duration of the training course is only one year at the elementary stage in several States; (3) the poor quality of the training imparted due to defective curricula and teaching methods, lack of proper equipment (including lands and buildings) in the training institutions, and the poor quality of teacher educators; (4) lack of integration in the training of elementary and secondary teachers; (5) the poor subject knowledge of most of the teachers who come in for training; (6) almost total absence of in-service training; and (7) the absence of adequate literature on educational subjects in the modern Indian languages which the teachers can use. The steps that are necessary to overcome these deficiencies have also been, by and large, identified. It, therefore, appears that there is no need to repeat any of the excellent work already done by these three groups. What is really needed is an effort to identify those areas which are not yet covered and to study them in detail.

37. In the light of the above studies, action seems to be indicated on the following lines:-

I. Pre-Service Training: (1) The facilities for the training of teachers at the school stage should be so expanded that, by the end of the Fourth Plan, the average annual output of teachers should be equal to the average annual demand for additional teachers. This will enable the authorities concerned to recruit only trained teachers. This stage has already been reached in Kerala, Madras and Punjab. It should also be reached in all other areas and in respect of all the different categories of teachers as soon as practicable. A separate programme to this end will have to be worked out for each State.

(2) In many States, there is a great backlog of untrained teachers because, even at the end of the third Plan, not more than 75 per cent of the teachers would be trained, either at the primary or at the secondary stages. Steps will, therefore, have to be taken for clearing this backlog as early as possible. If this can be done, simultaneously with the fulfilment of the target fixed under (1) above, the problem of the training of teachers would be solved on a satisfactory and permanent basis. As the extent of this backlog varies considerably from State to State, this problem also will have to be examined separately for each State.

(3) In implementing the two programmes mentioned above, it would be desirable to explore all possible avenues of economy- economy in the real sense which means a reduction in expenditure without affecting quality. Of these, two are very important. The first is the introduction of correspondence courses which is likely to prove very effective in clearing the backlog of untrained teachers. The second is the establishment of bigger training institutions. The existing sizes of training institutions are too small and hence less economic and efficient. It is, therefore, necessary to expand the existing institutions

to an optimum size where costs would be the lowest possible consistent with the maintenance of standards and to establish new institutions also at the optimum or greater size.

(4) The present methods of teacher-training need a complete overhaul. There is, in particular, a great need to change the teaching methods adopted at present in training institutions (mostly lectures) and to introduce techniques of programmed instruction, discussions, seminars, etc. There is also an equal need to change the existing techniques of evaluation also. Similarly, the syllabi of the different training programmes will have to be completely redrafted.

(5) These reforms imply the organisation of an intensive programme for the qualitative improvement of training institutions. This will include: (1) provision of an adequate physical plant (inclusive of lands, buildings and equipment); and (2) the provision of a better type of teacher educator. The second of these is the most important desideratum and big steps to that end will have to be taken by devising suitable in-service training programmes for existing teacher educators and also by devising proper specialized courses at the M.Ed. level for the pre-service preparation of teacher-educators.

(6) There should be no fees in training institutions for teachers and, in addition, an adequate number of stipends should be provided to meet the needs of all deserving and needy persons. Where training institutions are conducted by private enterprise, it will be essential to devise an adequate and efficient system of grant-in-aid.

(7) The training of elementary and secondary teachers now goes on in almost water-tight compartments. Steps should be taken to remedy this deficiency and to bring the two training programmes together to the extent possible. One way to do so is to establish comprehensive institutions which will train all the different types of school teachers or at least for elementary and secondary teachers together.

II. In-Service Training: (8) Programmes of in-service training have just been initiated e.g. summer institutes for university and secondary teachers and extension services in training institutions for secondary and primary teachers. These will have to be developed on a very large-scale so that every teacher could get a refreshing for about 2-3 months in every five years of service. A suitable organisation for this purpose would have to be created at every stage and adequate incentives will have to be provided to induce teachers.

(9) Courses in correspondence education would have to be developed for in-service teacher-education on a very large scale.

(10) Educational literature needed by teachers would have to be produced on a large scale in all the modern Indian languages.

III. Research: (11) There is a great need to develop educational research. For this purpose, a suitable programme should be drawn up and university Departments of Education and training colleges should be adequately strengthened for this purpose.

IV. Supervision and Promotion: (12) It is necessary to develop certain organisations at the State and Central level to promote teacher education. At the State level, it would be desirable to establish a State Board for Teacher Education, preferably statutory, which will function broadly on the lines of the A.T.As in England. At the Centre, the possibility and desirability of creating a special organisation for the purpose may be examined. In the alternative, both U.G.C. and the National Council of Educational Research and Training may be strengthened to develop a good programme of teacher

education for India. This is a very important programme; and * Incidentally, it may be pointed out that professional education (which obviously includes teacher training) is already a concurrent responsibility between the Centre and the States.

its details will have to be carefully worked out.

33. It is obvious that these programmes of teacher-training will have to be given very high priority and started immediately because they really form the spearhead of the entire programme of reconstruction.

VI

UNIVERSITY TEACHERS

39. What has been said so far applies mainly to school teachers; and if measures on these lines are taken, it will be possible to improve school education intensively in a programme spread over 10 to 15 years and its results will ultimately spread to higher education also in another period of about five years. But obviously, one cannot wait for 15-20 years to improve the quality of education at the collegiate stage as a natural effect or follow-up of the improvement of the school stage. What is even more important is that the improvement of quality at the collegiate stage is the cause and will have to precede the improvement of quality at the school stage. It thus follows that an intensive programme of the improvement of college teachers will have to go on side by side with that of the upgrading of teachers at the school stage which has been described above. This will have to be attempted on three lines: (1) better pre-service preparation through an intensive development of postgraduate education and research; (2) summer institutes and other programmes of in-service education; and (3) the organisation of formal professional education for lecturers. The last of these is very essential although it has been a neglected problem so far. This is an area in which the Commission can make a vital and original contribution. All these problems, however, form an area where the task force on Higher Education and that on Teachers will have to work together.

VII

TEACHERS' ORGANISATIONS

40. Another important area of study is that of teachers' organisations. There are a very large number of teachers' organisations in India at present, many of which have a standing of several years*. But by and large, they have not been very effective. Most of them are active only in one field - the improvement of the remuneration and service conditions of teachers. But some of them have undertaken very significant programmes of in-service teacher education, research, welfare activities, and even production of educational literature**. What is now needed is an effort to assist the teachers' organisations to develop programmes for welfare services, inservice education, research, publications, etc. This is an important area in which very little thinking has been done so far and the Commission will have a significant contribution to make.

41. Two concrete proposals can be put forward in this context:-

(a) We should organise a contributory welfare scheme for teachers on the lines of that in Japan and entrust its administration largely to teachers' organisations; and

(b) A scheme of grant-in-aid should be prepared to assist teachers' organisations to organise and develop programmes for improving the professional competence of teachers.

* It may be desirable to compile a complete list of all teachers' organisations and to hold a representative conference of their delegates to discuss some of crucial issues raised in this paper.

** It would be very worthwhile to collect data regarding all such activities undertaken at present by teachers' organisations.

VIII

STATUS, MORALE AND PROFESSIONAL ETHICS

42. Lastly, we shall also have to give considerable attention to problems relating to the social status, morale and professional ethics of teachers. Due to several causes, all these are at a very low ebb at present and the one area on which we shall have to concentrate is to improve this sad state of affairs as quickly as possible.

43. There was a time when the teachers were mostly recruited from the top-class in Hindu society - the Brahmins. They thus had an assured status in society. They were also brought up in the tradition, which was at least several centuries old, and which made them dedicate themselves to a life of teaching and learning. The very existence of this tradition gave them an enviable morale and an unimpeachable and high level of professional ethics. In the modern period, this high but narrow tradition has been broken in several respects. The recruitment of teachers is no longer restricted to the top castes; on the other hand, they now represent all the different strata of society. From the democratic point of view, this is a distinct gain; but temporarily, it has created a set-back because a fairly large proportion of the recruits do not have any hereditary tradition of learning and teaching or high professional ethics to fall back upon. With the entry of all castes in the teaching profession, the inherent social status which they once enjoyed is now no more and we have, therefore, to adopt deliberate and new techniques to raise their social status and to strengthen the teachers' organisations to prescribe and enforce the professional code of conduct. In short, the democratisation and expansion of education has destroyed the old structures which served some useful purposes and created the need for the adoption of modern techniques to fill the gap thus created. This is another neglected area to which great attention will have to be given in the next 10-15 years.

44. One word before I close. It is of course not desirable to build up a national educational system on the uncertain basis of idealism and that we shall have to ensure the adequate supply of competent teachers through the usual techniques of providing good remuneration, professional training, etc. All the same, I refuse to believe that the cultivation of idealism - which good teachers will always succeed in infecting at least a few of their students with - has no place in the present set up and that it will have to be written off as an article of mediaeval romanticism. For at least another generation or two, the educational problems of India cannot be solved except on a basis of a large band of idealistic workers willingly devoting themselves to the tasks of teaching and moulding the minds of the rising generation. There is an innate streak of this idealism in our very blood and it comes to the surface every now and then when the right stimulus is given. It was this idealism that fired the hearts of thousands of teachers between 1830 and 1920 when the country faced the challenge of slavery. They refused to accept cushy government jobs (which were then readily available) and started private schools for the spread of education. It was really out of the work of these unknown teachers that we really won our freedom. Today, the country is facing an even greater challenge - the challenge of hunger and unemployment. This challenge can be met only through a revitalized system of education. This, in its turn, can only be created if we could have the leaven of at least a fair proportion of idealistic teachers. Idealism is now needed more than ever, in all walks of life and especially in education. It may not be possible to plan for it; but it is doubtful if anything worthwhile can be achieved if we cannot generate it in a fair measure.

ANNEXURE 1

TOTAL NUMBER OF TEACHERS IN INDIA

Type of Institutions	1950-51		1960-61	
	Total		Total	
	Women	All persons	Women	All persons
1.	2.	3.	4.	5.
1. Universities	92	3,085	275	5,589
2. Research Institutions.	1	251	25	615
3. Arts & Science Colleges	1,623	15,312	55,345	35,555
4. Professional Colleges	334	4,901	1,865	17,914
5. Special Educational Colleges	73	904	322	2,556
6. High/Higher Secondary Schools.				
Government	5,167	22,039	16,613	64,318
District Board	291	10,222	1,924	26,591
Municipal Board	604	5,145	2,065	10,739
Private-Aided	12,379	76,066	37,140	1,73,776
Private-Unaided	1,541	12,732	4,551	20,632
Total	19,982	1,26,504	62,293	2,93,056
7. Post Basic Schools	-	-	54	249
8. Senior Basic Schools	180	2,563	22,137	1,02,083
9. Junior Basic Schools	5,774	74,756	25,431	1,75,606
10. Middle Schools.				
Government	4,678	26,082	13,700	66,269
District Board	1,218	23,463	10,353	75,165
Municipal Board	931	3,267	12,737	23,970
Private-Aided	4,955	23,365	22,931	69,614
Private-Unaided	925	6,756	1,674	8,127
Total:	12,707	82,933	61,395	2,43,145

	1.	2.	3.	4.	5.
11. Primary Schools					
Government	13,602	89,034	27,758	1,36,683	
District Board	18,469	1,80,907	22,147	2,48,536	
Municipal Board	13,520	38,657	12,473	32,376	
Private Aided	29,990	1,47,759	35,492	1,38,765	
Private Unaided	926	6,807	3,487	9,549	
Total:	76,507	4,68,152	1,01,357	5,65,909	
12. Pre-Primary Schools:	696	666	3,599	4,006	
13. Vocational Schools	2,131	11,589	3,948	27,152	
14. Special Education Schools	1,251	16,686	3,684	31,699	
	1,21,351	8,03,521	2,91,730	15,08,134	

ANNEXURE II

Average Salary Drawn by a Teacher (by type of Institution) 1960-61

State/Territory	Average Salary Drawn by a Teacher per annum										
	Universi- ties	Research Institu- tions	Colleges for Gen. Education	Colleges for Pro- fessional Education	Colleges for Special Education	High/Hr. Sec./Post Basic Schools	Middle/ Sr.Basic Schools	Prim- ary/Jr. Basic Schools	Pre- Prima- ry Schools	Voca- tional Schools	Special Educa- tion Schools
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Andhra Pradesh	6,156.9	-	3,219.5	5,419.1	2,368.8	1,641.6	1,007.6	938.2	1,123.1	2,079.1	1,861.1
Assam	3,906.8	-	3,667.8	4,710.8	1,173.9	1,518.5	869.0	747.7	735.7	2,536.1	546.6
Bihar	6,449.3	4,585.5	3,667.9	4,428.9	3,001.3	1,355.1	935.5	700.6	1,212.9	2,130.9	884.5
Gujarat	2,129.4	11,387.0	3,780.3	5,003.2	3,035.1	1,628.7	1,049.9	1,242.3	835.0	2,020.2	126.3
Jammu & Kashmir	6,676.5	-	2,585.4	3,203.4	1,430.0	1,293.1	1,133.7	680.1	-	1,633.6	926.0
Kerala	7,009.2	-	3,634.1	4,325.0	2,177.8	1,346.4	1,050.1	1,091.1	694.5	1,725.0	1,769.9
Madhya Pradesh	5,874.5	-	3,730.7	4,256.1	1,997.0	1,532.5	946.2	888.8	1,069.9	2,794.3	1,386.5
Madras	6,265.2	-	3,333.6	3,727.3	2,470.9	1,627.2	973.3	875.9	1,273.9	1,648.9	2,078.5
Maharashtra	5,664.3	4,995.8	3,664.2	3,643.1	3,499.7	1,902.2	1,240.6	1,199.7	820.3	1,689.2	1,534.7
Mysore	6,840.8	8,909.0	3,278.7	3,002.2	2,235.9	1,648.9	981.5	963.9	778.6	2,014.3	134.7
Orissa	5,298.8	-	3,800.2	3,634.1	1,801.9	1,380.0	936.0	504.0	-	2,426.0	392.7
Punjab	6,678.7	-	3,933.5	5,001.5	2,000.0	1,772.3	1,378.6	1,146.8	1,556.1	2,346.9	724.0
Rajasthan	28,009.7	-	3,564.7	3,731.8	2,053.8	1,864.6	1,121.8	923.9	1,239.1	2,411.4	1,175.2
Uttar Pradesh	5,202.6	17,936.6	3,754.9	4,410.7	2,950.1	1,800.7	863.2	624.4	1,117.2	2,111.9	655.4
West Bengal	4,809.1	4,996.8	3,667.4	4,364.5	1,754.2	1,867.0	1,118.1	782.7	1,118.3	2,238.7	640.1
Delhi	3,925.7	14,176.1	5,420.4	6,577.5	6,118.9	2,141.6	1,931.3	1,766.8	1,356.1	2,230.0	1,567.6
INDIA	5,474.6	9,027.0	3,658.9	4,236.5	2,268.7	1,681.3	1,057.5	872.8	924.7	2,040.9	595.0

ANNEXURE III

Factors which Determine the Emoluments of Teachers

1. Economically speaking, the emoluments of teachers depend on five factors:

- (1) the national dividend;
- (2) the proportion of the national dividend spent on elementary education;
- (3) the ratio of teacher costs to total recurring costs;
- (4) the pupil-teacher ratio; and
- (5) the targets of enrolment adopted.

The first three of these determine the gross amount that is likely to be available for purposes of emoluments while the fourth and fifth determine the number of participants among whom it has to be distributed. A clear understanding of the relationship between these factors is necessary for formulating sound proposals of reform.

(1) Let us assume that the total population of a country is 1000. If the national dividend is 'x', the total national income spent on elementary education, the total expenditure on elementary education would be Rs. $10 px$, ... (1)

(2) Let us now calculate the total expenditure on education in another way by relating it to the average annual salaries of teachers.

In the total population of 1000 assumed, the number of children to be educated, let us assume is 10 c or 'c' per cent of the population.

If 'c' be the pupil-teacher ratio, the number of teachers needed would be $\frac{10 c}{t}$

If 'a' be the average annual salary of a teacher, the total cost on this account will be Rs. $\frac{10ac}{t}$.

To this, we will have to add 10 per cent for old-age provision, leave salary, welfare projects, etc. Thus the cost per teacher unit works out at Rs. $\frac{11ac}{t}$.

If the teacher-costs are $\frac{n}{100}$ of the total direct expenditure on education (i.e. if the ratio of teacher costs to total costs is $r:100-r$), the total recurring expenditure on education would be $\frac{1100ac}{rt}$.

To this we must add 10 per cent for indirect expenditure so that the total expenditure on elementary education is $\frac{1210 ac}{rt}$. (2)

Equating (1) and (2), we have

$$10px = \frac{1210 ac}{rt}$$

$$\text{or } a = \frac{1}{121} \times \frac{pxrt}{c}$$

This shows that the annual average salary that can be paid to a teacher will vary directly in proportion to (1) percentage of the total national income devoted to education or 'p'; (2) the national dividend itself or 'x'; (3) the number of pupils per teacher or the average pupil-teacher ratio 't'; and (4) the percentage of teacher costs to the total direct expenditure on education or 'r' and that it will vary inversely with the number of children to be educated.

2. From the formula $a = \frac{111}{121} \times \frac{pxrt}{c}$ (or its generalised form of $a = k \cdot \frac{pxrt}{c}$ where the value of the constant 'k' will depend upon the assumptions made regarding old-age benefits and indirect expenditure on administration and inspection, the following conclusions be drawn regarding the possibilities of increasing teachers' salaries :-

(1) The total number of children to be educated is very large, partly (1) because the birth-rate is large and partly (2) because the duration of school-life is being increased. This leads to a fall in the salaries of teachers and one way to increase the salaries would be to reduce one or both of them. But, of these, the second is a desirable development in the right direction and cannot

be reduced. Hence, we shall have to reduce the birthrate with a view to giving a better wage to teachers.

(2) In the advanced countries, a small pupil-teacher ratio (t) can be adopted because ' c ' is small and ' p ' and ' x ' are very large (' r ' is generally small; but its effect is more than negatived by large ' p ' or ' x '). The situation in developing countries is exactly the opposite; ' c ' is large and ' p ' and ' x ' are small.

(3) The upper limit of ' a ' in relation to ' x ' can be had for the maximum values of ' p ', ' r ' and ' t ' and the least value for ' c '. Similarly, the lower limit for ' a ' can be had when ' p ', ' r ' and ' t ' are the least and ' c ' the highest.

(4) If a poor country (x is small) which spends little on education (' p ' is also small) also restricts the class-size (' t ' is also small), the average salary of teachers will tend to decrease, if it insists on providing universal education (i.e. if ' c ' is large). On the other hand, if it decides to spend more on teachers, it will have to give up the ideal of universal education (or reduce ' c '). This is precisely the dilemma in which India finds herself at the moment. 'Salaries of teachers' have become the enemies of expansion or the pressures of expansion have kept the teachers' salaries low. If the difficulty is to be solved without sacrificing either universal education or the teacher, the only way is to increase ' p ' - the proportion of national income devoted to education - or what is equally important, to increase ' t ' by the deliberate adoption of a higher pupil-teacher ratio. Since the possibility of increasing ' p ' is seriously limited in the Indian conditions, the only way to give a higher salary to teachers is to adopt a larger pupil-teacher ratio.

ANNEXURE IV

PARTICIPATION BY TEACHERS IN ELECTIONS TO THE CENTRAL AND STATE LEGISLATURES AND LOCAL BODIES

1. The existing position: The teachers in educational institutions fall into three broad categories: (i) Teachers in Government educational institutions; (ii) Teachers in institutions conducted by local bodies; and (iii) Teachers in private educational institutions.
2. Under the existing laws the teachers in Government service cannot contest the elections to Central and State legislatures or local bodies. The same Conduct and Discipline Rules are generally applicable to teachers working in local bodies. But teachers working in private educational institutions have the freedom to stand as candidates, either for the Central and State legislatures, and for local bodies.
3. Moreover, under article 171(3)(c) of the Constitution, 1/12th of the members of the Legislative Councils of States are to be persons "who have been, for at least three years, engaged in teaching in such educational institutions within the State, not lower in standard than that of a secondary school, as may be prescribed by or under any law made by Parliament". Under this provision, all teachers (other than elementary school teachers) have a representation in the Legislative Councils.
4. Two Proposals of Reform: The question whether teachers in private schools should be allowed to contest elections to the Central and State legislatures or local bodies and whether they should or should not have representation in the Legislative Councils of the States has received considerable attention recently. There are two main trends of thought in this context :-
 - (a) First Trend: According to the first trend, which proposes to expand the rights of teachers, article 171(3)(c)

(2) It is clear that the office of a teacher in a grant-in-aid school carries with it a pecuniary gain or advantage and as such it is an office of profit. The next question that arises for consideration is as to which offices are offices of profit under the Government. In the case of Hansa Jivraj Mehta v. Indhubai Amim, it was held by the Election Tribunal, Baroda, that the source from which a person received profit is not the only test as to whether a person holds an office of profit under the Government within the meaning of Article 102(1)(a) of the Constitution. The power to appoint and remove is also one of the tests and if a person is appointed by the Government to an office of profit and is removable by the government from the office, he would be a person holding an office of profit under the government even though he is not paid out of government funds. The view expressed in this case has not been dissented from in any subsequent case. In fact, the Election Tribunal, Nagpur, in a subsequent case, Krishnappa v. Narayan Singh (7 E.L.R. 294), endorsed the views expressed in Hansa Jivraj Mehta's case. In Krishnappa's case, which is exactly on the point, it was held that a person serving as a teacher in a grant-in-aid school does not hold an office of profit under the government merely because the school receives grants from the Government of Madhya Pradesh for payment of a portion of the D.A. and the pay of the teachers, and that the most important test for determining whether an office is held under the government is whether the power of appointment and dismissal vests in the government. The Bombay High Court also considers this test as the most important test (Dr. Deorao Lakshman v. Keshav Lakshman, 13 E.L.R. 334 (Bom. H.C.)). Further, in the case of Maulana Abdul Stakoor v. Rikhat Chand (13 E.L.R. 149 (S.C.)), the Supreme Court has observed that "the powers of appointment or dismissal by the government or

or control exercised by the government is an important consideration which determines in favour of the person holding an office of profit under the government" and that the holding of an office under any other authority, even though that authority is subject to the control of the government is not a disqualification.

(3) Therefore, teachers of state-aided schools cannot be said to hold offices of profit under the government merely because such schools receive monetary aid from the government. As long as the Government does not have the power to appoint and remove them from service (which, it is presumed is the correct position) the teachers do not hold offices of profit under the government and are entitled to contest elections and sit as members of Parliament or State Legislatures under the existing law.

(4) The principles stated above may apply mutatis mutandis to elections of municipalities, District Boards and other local bodies.

7. The Second Issue: Parliamentary legislation is necessary if teachers of state-aided schools are to be disqualified from contesting elections. There is already a Central Act viz. the Representation of the People Act, 1951, which provides for the conduct of elections to the Houses of Parliament and to the House or Houses of the Legislature of each State and the qualifications and disqualifications for membership of those Houses. If it is decided to go in for such legislation, we will also have to amend Article 171 (1)(3)(c) of the Constitution which provides for election of teachers to the Legislative Council of certain States.

8. We may consider the feasibility of the following method as an alternative to parliamentary legislation. If the management of State-aided schools were to provide by service rules that an employee of the body would be liable

to be removed from service if he were to file a nomination paper, the rules will not be ultra vires the Constitution. For, by filing his nomination paper, the employee commits himself to the conduct of an election campaign and thereafter, if elected, to the performance of the duties of a member of a legislature-both of which necessarily involve absence and distraction and are, therefore, incompatible with his continued employment in the school. The employment rests on the basis of a contract, express or implied, which requires the employee to perform certain duties and obligations; and if the employee places himself in a position incompatible with the due performance of those duties and obligations the management of the school - like any other employer - has the unquestionable right to terminate the contract of employment. And such action does not involve the least impairment of the employee's fundamental right because it leaves him free to exercise his electoral right fully; it affects only the contractual rights which are creatures of the contract and depend upon the due performance of corresponding obligations. Such a result could be secured by a mere amendment of the grant-in-aid rules.
