

**APPROACHES TO EDUCATIONAL PLANNING:  
A Sociological Analysis**

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This is to certify that the dissertation entitled: "Approaches to Educational Planning in India - A Sociological Analysis" submitted by Kameshwar Choudhary in fulfilment of eight credits out of the total of twenty-four credits for the award of the Degree of Master of Philosophy (M.Phil.) of the University is a bonafide work to the best of our knowledge and may be placed before the examiners for evaluation.

  
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## INTRODUCTION

Education is a form of human interaction. It is a social act that is made possible through a network of human relationships. It is this network, and the individual relations and roles of people within it, that really determines the nature of education in a particular society. The social aspect of education is illustrated by considering the dependence of individuals upon one another for learning. Unlike other animals, most of what human beings need to know is not genetically programmed. Very early in life a child must start to learn a vast and intricate way of life. That way of life - the culture - cannot be biologically inherited; it must be learned anew by each person.

In its broad meaning, education can be viewed as a process by which an individual gains knowledge or insight, or develops attitudes or skills. It includes all communicating of knowledge and shaping of values. This process continues throughout life.

Further, education is a consciously controlled process whereby changes in behaviour are produced in



the person and through the person within the group. Here by consciously controlled process is meant external control. This means that through educational process the changes in behaviour of the person are brought about not by the internal forces but by those external forces which are latent in the environment.

Broadly speaking, there are two types of education. (1) Formal education is acquired through organised study or institution, as in school or college. (2) Informal education arises from day-to-day experiences or through relatively unplanned or undirected contacts as in family and peer-group or with communication media, such as books, periodicals, motion pictures radio, or television.

Education can be used both for consolidating and furthering the objectives that a society has set for itself. These objectives may be progressive or reactionary, may take society forward or backward. Whether education plays a progressive or reactionary role is determined by the nature of the wider society of which education constitutes a sub-system.

#### Sociological Perspectives in Education:

There are three major sociological perspectives in

education, namely: (i) the Functionalist perspective, (ii) the Marxist perspective, and (iii) the Interpretive perspective. The first two perspectives are macro in focus. They concentrate on analysing the relation between education and society. But the third perspective is micro in nature. It emphasises the study of micro social processes in the classroom and school.

Functionalist thinkers are concerned with the function<sup>1</sup> of education for society as a whole. They assess the contribution made by education to the maintenance of value consensus and social solidarity. Further, they deal with the functional relationships between education and other parts of the social system. This, for example, leads to an examination of the relationship between education and the economic system, the political system and culture, etc., and a consideration of how this relationship helps to integrate the society as a whole. In general, functional analysis focuses on the positive contributions made by education

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1 According to R.K. Merton, "Functions are those observed consequences which make for the adaptation or adjustment of a given system; and dysfunctions, those observed consequences which lessen the adaptation or adjustment of the system". See, R.K. Merton, Social Theory and Social Structure (New Delhi, Amerind Publishing Co. Pvt.Ltd., 1981), p.105.

to the maintenance of the social system. It is assumed that education is functional for the society as a whole. Here, four major functions of education could be seen in relation to society, i.e., socialization, role allocation, social mobility and social change.

The Marxian perspective provides a radical alternative to functionalist views of the role of education in society. Marxists have approached the matter in two ways. Either they see education as assisting in the process of the 'reproduction' or maintenance of capitalist 'relations of production'; or they view education as a 'site of resistance' to the demands of the capitalist system. Education, according to direct reproduction theories, helps to reproduce or maintain the capitalist economic system. Some of these theories involve an economic determinist conception of society. Other theories are more voluntarist in nature, emphasising that the ruling class moulds education to suit its own purposes. Finally, certain theories whilst paying lip-service to the idea of the 'relative autonomy' of education, nevertheless see education as nothing more than an element of the 'state apparatus', the crucial function of which is to perpetuate capitalist relations

of production.

Orthodox Marxists believe that the economic base determines the superstructure in the sense that, for example, a society's educational system, or its form of government, or the type of family prevalent at any particular time is a direct consequence of the nature of its economic system. Furthermore, as the economic base changes, so too do these other social, political, educational and cultural institutions. As Marx himself says: "With the change of the economic foundation the entire immense superstructure is more or less rapidly transformed".<sup>2</sup>

### Sociological Perspectives in Education in India

In view of the post-independence aspirations for modernization, change and development it is but natural that several sociologists focus upon the issue of education as an instrument for modernization, change and development. Together the several conceptual analyses and empirical studies on this theme provide a valuable

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2 Karl Marx, "Preface to A Contribution to a Critique of Political Economy" in Marx and Engels, Selected Works (London: Lawrence and Wishart, 1968), pp.182-83.

elucidation of the functions of education as an instrument of development, the conditions under which this instrument is effective and the conditions in which its functioning is constrained. They also provide valuable data and insights on how, where and why education in the country has failed as an instrument of change. The writings on the subject reveal a shift in the outlook on education across the years. Suma Chitnis observes:

The writings in the beginning...generally exude a faith in education as an instrument of development and focus on spelling out the manner in which it is expected to function as such. In contrast, later writings display a measure of scepticism about the effectiveness of education and generally inclined towards indicating where and why it fails".<sup>3</sup>

We find broadly two paradigms on the issue of education and society in India. They are the functional paradigm and the conflict paradigm. In the functional paradigm education is considered as the main instrument of social transformation. It is evident in the writings of educationists, planners, policy-makers and most of the sociologists, like D.S. Kothari, J.P. Naik, M.S. Gore,

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3 Suma Chitnis, "Sociology of Education", in Survey of Research in Sociology and Social Anthropology, vol.II, (New Delhi: ICSSR, Satvahan Pub., 1985), p.212.

S.C. Dube, M.S.A. Rao and B.V. Shah. For example, the opening paragraph in the chapter on education in our Third Five Year Plan says:

Education is the most important single factor in achieving rapid economic development and technological progress and in creating a social order founded on the values of freedom, social justice and equal opportunity. Programmes of education lie at the base of the effort to forge the bonds of common citizenship, to harness the energies of the people, and to develop the natural and human resources of every part of the country.<sup>4</sup>

Further, the report of Kothari Commission (1964-66) holds:

The destiny of India is now being shaped in her classrooms. This, we believe, is no mere rhetoric. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction.<sup>5</sup>

The report adds:

In fact, what is needed is a revolution in education which in turn will set in

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4 The Third Five Year Plan (New Delhi: Government of India, Planning Commission, 1961), p.573.

5 Report of the Education Commission 1964-66 (New Delhi: National Institute of Educational Research and Training, 1971), p.3.

motion the much desired social, economic and cultural revolution.<sup>6</sup>

In the conflict paradigm, education is not considered as a prime mover of social change or as the main weapon, or even one of the important instruments of achieving fundamental social changes. Here, it is asserted that change in or through the educational system is not possible without prior changes in the social structure. The proponents of this view are A.R. Desai, Charles Bettelheim, and A.R. Kamat. Kamat asserts:

Undoubtedly changes in the economic structure, in the political power structure, the legal structure, etc., are the main springs of change in the social hierarchy and the relationships between different sections in it. All these factors including education are inter-related and interact, and it is difficult to separate out the effects and say that a particular aspect of the change is attributable to education.<sup>7</sup>

He adds: "Education seldom rises above the socio-economic and socio-political situation in which it is embedded".<sup>8</sup> A.R. Desai<sup>9</sup> (1974) also questions the viability of education as an instrument of social change.

6 Ibid., p.9.

7 A.R. Kamat, "Education and Social Change", in A.M. Shah (ed.), The Social Context of Education (New Delhi: Allied Publishers, 1978), pp.255-56.

8 A.R. Kamat, Education and Social Change in India (Bombay: Somaiya Publishers, 1985), 'Preface'.

Writing relatively recently, Karuna Ahmad<sup>10</sup> questions the justification for the massive faith that planners and policy-makers in independent India have placed on education. She argues that although formal education can play a vital role in "ideational change" through transformation of the knowledge, attitudes and values of the people, its effectiveness in bringing about structural changes in society is extremely limited. Supporting the viewpoint of conflict theorists across the world, who consider formal education to be a mechanism easily subject to the manipulations of vested interests in the status quo, she suggests that the vicious circle in which education is caught in India today may be broken if the linkages between the existing practices and procedures in education and vested interests in the status quo are meaningfully exposed by social scientists through their research.

#### Educational Planning

Educational planning has been adopted as a means to achieve certain educational objectives in particular

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9 A.R. Desai, "Dilemma of Educational Development After Independence", The New Era, 55(8) (1974), pp.213-25.

10 K. Ahmad, "Towards a Study of Educational and Social Change", Economic and Political Weekly 14(4), 1979, pp.157-64.



and national goals in general. It started as a concomitant of economic planning and is now considered indispensable for development by almost all countries of the world. According to Beety:

Educational planning is the exercise of foresight in determining the policy, priorities and costs of an educational system having due regard for economic and political realities, for the systems' potential for growth and for the needs of the country and of the pupils.<sup>11</sup>

Further, an UNESCO publication states:

Educational planning is the application to education itself of what real educators seek to instil in students; a national scientific approach to problems. Such an approach involves identifying objectives and available resources, examining the implications of alternative courses of action and choosing widely among them, deciding on specific targets to be met within specific time limits and finally developing the best means of systematically implementing the choices made.<sup>12</sup>

In sum, educational planning involves policy decisions, and formulation, implementation and evaluation of plan for educational development for a specific period of time.

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11 C.E. Beety, Planning and the Educational Administrator (International Institute of Educational Planning, Paris, 1972), p.13.

12 Educational Planning: A World Survey of Problems and Prospects (UNESCO, Paris, 1970), pp.12-13.

The existing socio-economic structure of a society and its national goals have important impact on the whole process of educational planning.

#### Focus of the Study

1. Educational plans have specific objectives in view. Certain 'approaches' are adopted in educational planning to achieve those objectives. This study aims at 'exploring' the approaches which have been adopted in educational planning in our seven Five-Year Plans which spread over the period between 1951-1990. However, this study deals with educational planning at the central level only.
2. Despite planned efforts made during the last three and a half decade, our educational system is in a state of crisis. Here, an attempt has been made to make a sociological analysis of the crisis and also to arrive at a conclusion as to how to resolve the crisis in education.

#### Objectives of the Study

1. A lot of work had been done on educational planning in the 1960s and early 1970s. But the spirit of the scholars and researchers working in this field dampened

in the late 1970s and early 1980s. The world famous economist turned educationist Professor Philip Coombs (1984) wondered what has happened to educational planning, the concepts, the methodologies, the theories and their relation with actual practice of educational planning in the countries of the world - which was once cherished with high esteem.<sup>13</sup> It is hoped that this study will give a boost to the study in the field of educational planning.

2. There are various studies available on approaches to educational planning. But they are mostly contributed by the economists. The main objective of this study is to make a sociological analysis of education. For this purpose, an attempt has been made to highlight the problem of educational inequality, as in case of various categories of population, e.g., women, scheduled castes and scheduled tribes. Educational inequality is seen as a part of the basic problem of socio-economic equality.

3. Economists and economist turned educationists have made contributions to the approaches to educational planning in India. But, there is a lack of study especially

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13 Phillip Coombs, "New Directions in Educational Planning" in Educational Planning & Administration Bulletin (vol.7, no.3 & 4, 1984-85), p.5.

on approaches adopted in educational planning in our Five Year Plans. This study aims at filling that gap.

### Hypotheses

Our planners, administrators, political leaders and most of the social scientists have viewed education generally in isolation of the existing socio-economic structure of the Indian society. In line with this, they have explained educational crisis in India in terms of intra-sub-systemic weaknesses. Their approach to resolution of the crisis is also intra-sub-systemic.

But in this study, our hypothesis is that the system of education reflects the socio-economic structure of society. Therefore, educational crisis is a part of the crisis in the socio-economic structure of society. Moreover, resolution of educational crisis would form a part of the process of resolution of crisis in the socio-economic structure. In case of India, socialist transformation of society is the only way out for the resolution of overall systemic crisis.

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### Sources

Our sources include both governmental and non-governmental publications. Governmental publications comprise documents of the Five Year Plans and reports of the Committees and Commissions on education. Non-governmental publications consist of books and journals.

### Chapterization

This study is divided into three Chapters. The first chapter is entitled "Approaches to Educational Planning". There are various approaches to educational planning. But we have discussed only six approaches which are broadly categorised under two heads: Traditional Socio-cultural approaches and Modern Economic approaches. Social Demand approach, Cultural approach and Social-Justice approach comes under the former category. Manpower approach, Rate-of-Return approach and Human Resource Development approach comes under the latter.

The second chapter deals with the "Approaches to Educational Planning in India". Here, the beginning of educational planning is traced back to the first decade

preceeding Independence. However, it is observed that a systematic and organised beginning of educational planning began with the national planning in India in 1951. Further, we find three phases in approaches which guided overall educational planning in India under the Five Year Plans. Moreover, we observe that different approaches have been given preference in educational planning at different levels and in different areas of education under the plans. Here, it must be noted that all the steps involved in a particular approach are not taken in educational planning under the plans. Our observations are mainly based on application of basic assumptions which characterise a particular approach to educational planning.

The last chapter deals with the problem of educational crisis and general systemic crisis in India. Moreover, the way to the resolution of the crisis is also visualised.

Then follows the appendices which consists of eleven tables.

Lastly follows the bibliography.

**CHAPTER ONE**

## Chapter One

### APPROACHES TO EDUCATIONAL PLANNING

Various approaches<sup>1</sup> have been developed and applied in educational planning. All those approaches have been broadly grouped under two main heads:<sup>2</sup> (i) the traditional or socio-cultural approaches; and (ii) modern or economic approaches. The former advocates provision of education to all those who wish to have it or are capable of having it. The latter implies regulation of investment and enrolment in education either on the basis of manpower requirements of the economy or on the basis of economic efficiency of investment in education in a manner similar to any other sectors of the economy. The traditional approaches otherwise known as consumption approaches do not recognize the investment component in the educational expenditure.

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1 For a comprehensive survey of some of the important approaches to educational planning, see Blaug (1967a), Sen (1966, 1970b), Bowen (1963), Layard (1972), Pandit (1970), Eckus (1964), Fox and Sengupta (1968), Rilvin (1962), Okhigbo (1966), Onimode (1975), Philips (1964), Coombs (1970), Simpson (1966), Parnes (1963).

2 S. Debi, "Educational Planning: Some Suggestions", New Quest, no.55 (January-February 1986), p.26.



Education is considered purely a consumption activity. But the modern approaches which can be called investment approaches put education in the list of productive economic factors, and gives altogether a new attitude to the theory of capital, considering thus the expenditure on education as investment and educated men as human capital.<sup>3</sup>

Traditional approaches consist of Social Demand approach, Cultural approach and Social Justice approach. Important approaches under modern approaches are Manpower Requirement approach, Rate-of-Return approach and Human Resource Development approach.

#### Social Demand Approach

This approach assumes that access to every branch and level of education should be available to all those who wish to enter it provided, of course, they are possessed of the required qualifications, ability and attainment. The administrators of education simply set <sup>which</sup> the terms on/education shall be available in the future

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3 J.B.G. Tilak, "Approaches to Educational Planning and Their Applications in India", Indian Economic Journal (January-March 1977), p.4.

and then plan to provide education for the number of students who using their own foresight demand it on these terms. The main aim of this approach is to forecast the future demands for places, taking account of demographic and social trends. The assumption is made that the provision of more education will of necessity benefit the economy, so that the additional costs will not prove too heavy a burden. The stress is upon education as social infra-structure for development purposes, and as an end in itself. The classic example of this approach is the Robbins Report on Higher Education in Great Britain with its axiom that "courses of higher education should be available for all those who are qualified by ability and attainment to pursue them and who wish to do so".<sup>4</sup>

This approach involves several steps to the projection of the demand for places in education. Having gathered data regarding composition of the existing population and future trends in it by age and sex, and about the educational system, projections are made on

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4 Mark Blaug etc., in general introduction to Z.F. Bereday et.al., (eds.), The World Year Book of Education 1967, Educational Planning (Evan Bros., London, 1967).

the basis of past trends in enrolment ratios. This is almost extrapolation of the past trends into future.<sup>5</sup> According to the method followed by the Robbin's Committee, there are five major and several minor steps:

- i. To estimate the size of age-group relevant to higher (various) stages of education;
- ii. To estimate what proportions of these age-groups are likely to reach the particular levels of school-leaving attainments now considered relevant for entry to higher education;
- iii. To estimate what proportions of those so qualified will apply for admission to higher education;
- iv. To decide what proportions of these applicants should be given places;  
and
- v. To assume what length of study to assume.

Here, it may be noted that while the first three steps relate to entrance, the last two steps relate to crucial policy decisions.

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5 Tilak, op.cit., p.2.

This approach is not as uncomplicated as it first seems because the demand for admission depends on the cost of education to the student, and the phrase 'required qualifications, ability and attainment' can be subjected to a variety of interpretations. Furthermore, unless the state can accommodate all the primary, secondary and higher education that students might reasonably demand, the problem of which demand to satisfy first must be faced. The decision lies with the value judgements and subjective attitudes of the decision-makers.

P.H. Coombs<sup>6</sup> has listed three main criticisms made of the social demand approach, particularly by economists: (i) It ignores the larger national problem of resource allocation and implicitly assumes that no matter how many resources go to education this is their best use of national development as a whole; (ii) It ignores the character and pattern of manpower needed by the economy and can readily result in producing too many of some types and not enough of others; and

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6 P.H. Coombs, What is Educational Planning (UNESCO, IIEP, Paris, 1970), p.40.



(iii) It tends to over-stimulate popular demand, to underestimate costs, and to lead to a thin spreading of resources over too many students, thereby reducing quality and effectiveness to the point where education becomes a dubious investment. Another important fallacy of the approach is it is not desirable to project the past into the future, because the 'unevenness' of the past is not what is expected in the future. The planning mechanism should correct the unevenness and that is where this approach severely suffers with.<sup>7</sup> Blaug comments, it does not tell the educational planner what to do, rather it tells him "What will happen if he does exactly what he has been doing in the past".<sup>8</sup>

Cultural Approach

This approach deals with all of those requirements other than for vocational preparation. Don Adams observes: "The cultural approach stresses education as a social

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7 Tilak, op.cit., p.3.

8 M. Blaug, "Approaches to Educational Planning", Economic Journal, LXXVII, 306 (June, 1967), p.265.

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investment to which returns cannot be calculated in money terms - an investment in values that are either indispensable or highly desirable to the society, e.g., an informed citizenry, equality of opportunity, etc."<sup>9</sup>

It follows, therefore, that short of educating everyone up to his capabilities, there is no way of specifying educational needs in any absolute sense. The decision has to be a political one. The best the planners can do in this regard is to indicate the cost implications of alternative policy choices.

The chief difficulty in the cultural approach lies in specifying the criteria in terms of which educational needs are to be defined and in deciding upon the amount and type of education appropriate or necessary for the achievement of each.

#### Social Justice Approach

This approach assumes that in planning education social justice should be the main consideration.

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9 Don Adams (ed.), Educational Planning (Syracuse University, New York, 1964), p.61.

Article 45 of the Indian Constitution<sup>10</sup> urging the State to provide for free, compulsory and universal education upto the age of fourteen is apparently based on the consideration of social justice. This approach also visualized that it is only just and fair that special provisions are incorporated in the education plan to bring into school, children from economically and socially depressed communities and retain them there for a reasonably long period.

#### Manpower Requirement Approach

This approach, also known as manpower forecasting approach is altogether, different from the approaches just discussed. Many economists prefer this approach. They argue that economic growth is the mainspring of nation's overall development and thus should be the main consideration in allocating its scarce resources. The main assumption is that the modern production system needs educated workers trained in the appropriate skills

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10 The Constitution of India, 1980 (Ministry of Law, Justice and Company Affairs, Government of India, New Delhi, 1980), p.26.

and that the skill demands are elastic and grow and change with technological, economic and social developments. From this it is inferred that manpower production or development of the human resource should be the most important function of the educational system and all educational effort should be directed to the fulfilment of the country's manpower requirement.

H.M. Phillips observes:

This approach is based on the fact that the main link of education with economic development is through the knowledge and skills it produces in the labour force. To the extent that the educational system produces qualified people in the right numbers and places, the major part of the economic and social contribution of educational planning is achieved, provided that in so doing the educational system has not consumed so great a proportion of resources as to set back the development plan itself.<sup>11</sup>

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Further, the approach insists on a long-term perspective and a thorough study of the occupational changes and technological progress as well as a rise in educational standards. The 'social demand approach' amounts

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11 H.M. Phillips, "Education and Development", in Economic and Social Aspects of Educational Planning (UNESCO, Paris, 1964), p.127.



to predicting future demand for education by parents and children, ordinarily on the basis of demographic and income trends. But the "manpower approach" projects such requirements according to the forecasts of economic growth over a period of time. Central authorities determine the numbers of places in various schools and curricula without regard to perspective students' demands. Khan states: "The main objective of a manpower projection is to determine in broad terms the adjustments required in the educational process for producing the right number of requisite trained personnel at the right time".<sup>12</sup>

The essential ingredients of detailed manpower plans in all their variants are: (i) specification of the composition of manpower needs or requirements at some future date (or, less often, sequence of dates); (ii) specification of manpower availabilities, which includes estimation of losses (by retirement and death)

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12 Q.A. Khan, "Application of Manpower Requirement Approach to Educational Planning", Indian Educational Review, vol.8, no.1, (January 1973), p.22.

on the one hand, flows of new manpower out of educational institutions on the other; (iii) a reconciliation of (i) and (ii).<sup>13</sup> Within this context, educational planning becomes the scheduling of flows of human raw material through the educational agencies and out into the economy as various specified kinds of manpower.

In this approach, the exercise begins with the availability or the establishment of a target figure of the Gross National Product (GNP) or of Gross Domestic Product (GDP) of a country ten or fifteen years hence. This target is generally laid down in the economic plan of the country. The educational planner is, therefore, confronted with the problem to project the number of educated people that should be available over the time span of this economic plan to realize the target for the GNP or the GDP. In other words, he is called upon to translate the GNP or GDP targets into an educational output target.

The procedure for determining the manpower requirements involves three following steps:<sup>14</sup>

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13 C.A. Anderson and M.J. Bowman, "Theoretical Considerations in Educational Planning" in Don Adams (ed.), Educational Planning, p.20.

14 J.B.C. Tilak, op.cit., pp.9-10.

(i) Critical analysis of the existing situation is necessary in respect of the existing employment structure i.e. structural distribution of the manpower, educational system i.e., distribution of students at various levels and types of education, rate of growth of population, and actual training level.

(ii) Fixation of targets is the second step. Targets of output at aggregate and disaggregate levels (National and sectoral) including service sectors should also be fixed.

(iii) At the third stage lies the actual method of forecasting. Forecasting is made on the recent past experiences, estimating the employment coefficients as Parnes (1965) did, or using the input output co-efficients as Tinbergen and Boss (1964) did, and then applying it to the product-targets of the national economy or sectors. Thus we arrive at employment targets at various sectors and in various occupations. The occupational structure is then translated into educational system in the form of enrolment targets in various segments of the system

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in the light of the projected occupational structure.<sup>15</sup>

Various difficulties hamper this approach as Harbison<sup>16</sup> recognizes. First, manpower forecasts can seldom be made with reliability beyond short-term periods of five to eight years. Secondly, it rules out the possibility of substitution between different layers of education. Thirdly, this approach totally ignores costs of and returns from education. It also ignores and assumes away quantitative improvement in education. Moreover, assumptions about magnitude of wastage and stagnation in education, number of withdrawals of labour from occupation, number of separations from occupations and accession to others etc., invariably introduce substantial arbitrariness into the analysis, which leads to the margin of error, and this "margin widens as we forecast farther and into future".<sup>17</sup>

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15 The OECD group of economists used this techniques in forecasting the manpower requirements in their study of six countries of the Mediterranean Regional Project. See Parnes (1962) for the exact method followed by them. See also OECD (1965) for different country Reports. Tinbergen's approach is slightly different. It is a balanced input-output growth model. See Tinbergen and Correa (1962), Tinbergen and Boss (1964).

16 F. Harbison in Bereday, et.al., (eds.), op.cit., pp.27-28.

17 M. Blaug, "Approaches to Educational Planning", op.cit., p.284.

A further limitation is that this approach leaves out of account provision for education as a 'Consumers' good', and it makes no provision for the 'social minimum'. The occupational needs of the economy are not the whole of society's needs for education. In addition, personal choices about courses to be studied by students are extremely limited. This approach also has nothing to say about primary education (which is not considered to be work-connected) though by implication it suggests curbing the expansion of primary education until the nation gets richer.

There are various positive aspects of the manpower approach. This approach appears to offer definite objectives framed in terms which permit definite decisions to be made. It gives the basis for the estimates of enrolment in the different streams of the educational system. It also gives a forecast of the general demand and supply in the educational system. Further, in this approach education is considered to contribute directly to economic development of the country and, therefore, the expenditure incurred on education is easily justifiable. Moreover, it stresses the employment aspect of education which is

often overlooked. This approach will normally not create the problem of the educated unemployed. The success of this approach lies in the transformation of unskilled into skilled labour and the conversion of raw human material into the types and numbers needed for economic development.

#### Rate-of-Return Approach

This approach, also called cost-benefit analysis approach is based on the capital-output ratio approach and might be called the education-output ratio approach when it is applied to education. According to this approach, investment in education should take place to such an extent that the returns from that investment are equal to the returns from other kinds of investment in physical capital like cotton mills or fertilizer factories. Moreover, the emphasis is laid on the fact that the investment in education should be based on the benefits and returns to individual and society accruing from that investment. The main assumption is that the expenditure on education should be thought of a form of national investment which is justified by higher productivity and greater earnings of the educated. The aim of this approach is, according to Muhammad S. Huq,

"to estimate the economic benefits accruing from the costs of schooling, instead of estimating the manpower at various levels of schooling required for a given pattern of economic growth, which is the aim of the manpower approach.<sup>18</sup>

In this approach, both inter-sectoral and intra-sectoral calculation of rate of return is made. Regarding inter-sectoral priority, Mukerji says, "If the rate is relatively high in education, more resources should be invested in it; if it is relatively low, the scale of educational expenditure should be reduced accordingly".<sup>19</sup>

Further, intra-sectoral rate of return analysis involves the calculation of the stream of costs of education (private cost and public cost) and the stream of future earnings. After arriving at the stream of net benefits of education, we calculate the rate of return. This approach requires working out the costs of the various types and stages of education and

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18 M.S. Huq, Education, Manpower, and Development in South and Southeast Asia (Sterling Publishers, New Delhi, 1975), p.88.

19 S.N. Mukerji, Administration of Educational Planning and Finance (Acharya Book Depot, Baroda, 1970), p.193.

comparing them with expected returns in the form of benefits to the individual as well as to society. The input-output ratio then provides a basis to determine what sectors of education will give the higher rate of return and should therefore be supported in planning.

The rate of return approach is widely criticized for its severe pit-falls,<sup>20</sup> like its assumption against reliance on tradition-bound wage structure, failure to capture non-monetary benefits of education, job-satisfaction, indirect benefits etc. Anderson and Bowman<sup>21</sup> have listed five criticisms common both to this approach and the manpower approach: (i) They ignore the non-economic benefits and indirect returns of education e.g., personal satisfaction and cultural growth of the individual and society; (ii) they catch only direct but not indirect economic returns; (iii) they assume pure competition; (iv) they are impractical because necessary data are not available; and (v) they

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20 For an excellent critique of the analysis see, Merrett (1966). See also Blaug (1965) who answers to the "Omnibus of Objections".

21 Anderson and Bowman, op.cit., pp.27-28.



ignore income effects of ability, motivation, and family status that are correlated with schooling. Further, the rate of return approach does not incorporate systematic assessment of linkages between educational and economic developments over time. Manpower planning, by contrast, takes as its central problem the estimation of growth rates and their implications with respect to manpower requirements at a future date. In addition, in case of the rate of return analysis, it is objected also that market prices, with or without an income policy are faulty indexes of the productivity of such people as doctors and nurses, and that administered prices (wages, salaries) in a command economy are not measures of productivity for anyone.

There is no doubt much substance in all this criticism. But it should be remembered that the followers of this approach do not claim their estimates to be accurate. For example Blaug<sup>22</sup> admits that these calculations represent "something close to maximum likelihood estimates of the average yields of additional expenditures

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22 M. Blaug (1967), op.cit., pp.266, 268.

on education". The interesting point to be noted is that inspite of various drawbacks, it provides us with "a signal of direction: invest more or less", though "not statements of actual amounts to aim at". Thus, it can be said as Coombs comments that "this approach, like others, has a relevance and utility for educational planning. At the very least it emphasizes the constant need to examine alternatives and to weigh their respective costs and benefits as best one can before leaping to a decision".<sup>23</sup>

#### Human Resource Development Approach

It has long been recognized by economists that human factor is a major instrument in economic growth and that human resource development should figure prominently in plans and programmes for economic and social development. However, sometimes planners are apt to think that economic development just means the creation of physical capital such as, power, steel, coal, machine building etc. Undoubtedly all these are

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23 Coombs, op.cit., p.45.

necessary, but by themselves they do not constitute a sufficient condition for economic growth. In the last analysis, it is the human being who has to operate these instruments of production. Unless he is equipped with the necessary skills and is motivated to play his appropriate role in production and organizes himself properly for the purpose with due regard to economic considerations, the developmental facilities that are created will not be utilized either economically or at their optimum capacity. V.K.R.V. Rao asserts, "Human resources constitute the most important of all developmental resources; and with skillful management and intelligent planning, they can go a long way in taking a country from underdevelopment to development, from poverty to comfort, and from stagnation to social and economic growth".<sup>24</sup>

This approach has been developed by F. Harbison. It starts from the position that education is one of the main sources of human resource formation, other sources being measures in the fields of manpower, employment,

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24 V.K.R.V. Rao, Education and Human Resource Development (Allied Publishers, Bombay, 1966), p.13.

training and health.<sup>25</sup> The strategy of human resource development consists of integrating these factors with general economic and social development planning. It takes into consideration such factors as the scale of development feasible considering the availability of specialized manpower, the scale of development needed to absorb the backlog of unemployed and the new entrants to the labour force, the extent of in-service training in industry, the pattern of investment priorities envisaged in the plan and the broad economic, social and educational goals of development planning.

The human resources approach is, therefore, a comprehensive one where the ultimate goal is not purely economic even though such factors as manpower and employment opportunities are taken into account. Harbison observes: "Human resources development...is probably a more realistic and reliable indicator of the stage of modernization or growth than any other single measure, because it is a necessary condition for all kinds of growth - social, political, cultural or economic".<sup>26</sup>

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25 F. Harbison, "Human Resources and Development" in Economic and Social Aspects of Educational Planning, p.31.

26 Ibid., p.61.

Other approaches<sup>27</sup> to educational planning are: Institutional approach, Aggregate method approach, Systems approach, Production function approach, Income shares approach, Input-output model, Correlation method and Programming approach. But we have not discussed them in this chapter. Here, we have dealt with the approaches which are of direct relevance to the approaches adopted in our five-year plans.

Remarks:

Now, it is quite evident that each of the six approaches which we have discussed has its merits and limitations. In fact, each merits exploration, and none of them can be considered in an absolute sense. Blaug and Lauwerys observe: "Each is only an index, a guide - certainly not an exclusive guide - to the formulation of educational policy. In one sense, they are not even indices of the something, but rather different views of the nature of education".<sup>28</sup>

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27 See Denison (1962, 64, 74), Bowen (1964), Bowles (1969), Chaudhri (1969, 1972, 1973), Biswas et. al. (1975), Stone (1966), Naik (1968, 1975).

28 Blaug and Lauwerys (eds), The World Year Book of Education 1967, pp.5-6.

Further, it is very difficult to decide whether education is a consumer good or an investment good or both. It depends on the time and place. Each approach has something to offer depending on the prevailing problems in each country. Simpson remarks: "Methods (approaches) need to be tailor-made to fit each situation but an outline of the various possibilities provides a framework on which to build a local situation".<sup>29</sup>

Shukla opines that "Planning for different stages and types of education demands different approaches to be adopted".<sup>30</sup> According to him, there should be social justice approach in the case of elementary education, social justice and social demand approaches in the case of secondary education and manpower and cost-benefit or rate-of-return approach in the case of higher education, including professional and technical education.

In addition, Coombs<sup>31</sup> feels that a new 'synthesis' of social demand approach, manpower approach and rate-of-

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29 R.F. Simpson, Methodology of Educational Planning (Hong Kong, 1966), p.11.

30 P.D. Shukla, Administration of Education in India (Vikas, Delhi, 1983), p.114.

31 Coombs, op.cit., pp.45-46.

return approach is needed. He says that these approaches are essentially instruments for macro-planning and as such can be very useful. Hence, he advocates that educational planning needs to get down inside the system and change it to make it more relevant and efficient and productive.

Lastly, we find dominance of economists and economic considerations in formulation of approaches to educational planning. In reality, the cultural aims of education are as important as the economic ones, for society as well as for the individual. Education should not aim at creation of 'economic man' but the overall development of the personality of an individual which in turn contribute to the development of a society. Hence, only economics will not be able to throw sufficient light on the subject. An inter-disciplinary approach and a teamwork involving economists, sociologists, psychologists, educators, scientists and philosophers are essential for an overall understanding of the problem in this field.

CHAPTER TWO



## Chapter Two

### APPROACHES TO EDUCATIONAL PLANNING IN INDIA

#### BEGINNING

During the first decade preceding the attainment of Independence, efforts were made to prepare a plan of educational development for the whole country, both at the official and non-official levels. It was in 1938 that the Indian National Congress appointed a National Planning Committee under the Chairmanship of Jawaharlal Nehru to prepare a comprehensive plan of national development. Educational planning was taken up by two sub-committees, one for General Education with Dr. S. Radhakrishnan as its Chairman and the other for Technical Education and Development Research under the Chairmanship of Dr. M.N. Saha. Unfortunately, the struggle for political freedom did not give sufficient time to the Chairman and other members to do justice to the work. However, a volume on education<sup>1</sup> was brought out in 1948. This sketchy

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1 The National Planning Committee, Education (Vohra & Co., Bombay, 1948).

document contained a broad outline of the work done in planning educational development. This work did not have any impact on educational planning in India. Its significance is historical. Naik observes: "Its principal significance lies in the fact that this was the first attempt to relate proposals of educational development to the overall plan of socio-economic development".<sup>2</sup>

Simultaneously, on the official side, the Central Advisory Board of Education (CABE) prepared the Post-War Plan of Educational Development,<sup>3</sup> popularly known as the Sargent Report because of its close association with John Sargent who was the Educational Adviser at that time. During 1938-43, CABE appointed a number of committees to examine different aspects of educational reconstruction. In 1944 all these studies were welded together and a comprehensive plan of educational development in the country was prepared as a part of plans of post-war development. This plan covered a period of forty years (1944-84), a four year period of preparation and thirty

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2 J.P. Naik, Education in the Fourth Plan - Review and Perspective (Nachiketa Pub., Bombay, 1968), p.78.

3 Report on the Post-War Educational Development in India (Ministry of Education, New Delhi, 1944).

to thirty five years of implementation. However, this plan was too much influenced by British ideals. Its object was 'to create, in India, in a period of not less than forty years, the same standard of educational attainments as had already been attained in England. This plan also was not accepted by the Government. Therefore, like the Congress Plan, this has got 'only an academic and historical significance at present'.<sup>4</sup>

Further, the first four years of Independence (1947-51) witnessed educational expansion on a year to year budgetary planning. In the meantime the Constitution of India was adopted in 1950 which embodies broad socio-cultural and politico-economic ideals of the country. These general ideals plus educational objectives as described in the Constitution form the philosophical basis of socio-economic planning in general, and educational planning in particular in India.

The 'Preamble'<sup>5</sup> to the Constitution resolves to constitute India into a sovereign, socialist, secular,

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4 J.P. Naik, Educational Planning in India (Allied Pub., New Delhi, 1965), p.8.

5 The Constitution of India, op.cit., p.1.

democratic republic and to secure to all its citizens: justice-social, economic and political; liberty of thought, expression, belief, faith and worship; equality of status and of opportunity; and to promote among them all, fraternity assuring the dignity of the individual and the unity and integrity of the nation. These noble principles are expected to inform the educational system. In addition, the Directive Principles of State Policy<sup>6</sup> regarding education states:

"The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to education..." (Article 41).

"The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years" (Article 45).

"The State shall promote with special care the educational...interests of the weaker sections of the people, and in particular, of the Scheduled Castes and the Scheduled Tribes..." (Article 46).

Further, regarding minorities, the Constitution proclaims: "All minorities, whether based on religion

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6 Ibid., pp.26-27.

or language, shall have the right to establish and administer educational institutions of their choice". (Article 30).

Thus, the Constitution has adopted socio-cultural approach to education. 'Directives' regarding right to education and universal, free and compulsory education are given to meet 'social demand' of education. Moreover, special provisions for the promotion of education of Scheduled Castes, Scheduled Tribes and minorities show concern for 'social justice'.

#### Phase-I (1951-66)

Despite a few faltering steps taken in the pre-Independence period, educational planning as such began systematically with the setting up of the Planning Commission to prepare a plan for the 'most effective and balanced utilization of the country's resources'. Education constitutes one of the sectors in the overall plans for socio-economic development of the country. Under the consecutive Five Year Plans, plans for the development of education have been drawn up, implemented and performance evaluated. Therefore, systematic educational planning may be said to have begun along

with the general planning in the country through a series of five-year plans, beginning in 1951.<sup>7</sup>

The basic assumption regarding relation between education and national development, as stated in the opening paragraph in the chapter on education in the first three Five-year plans makes adoption of mainly the 'Socio-cultural approach' very evident. It is held that education would play a very important role both in economic and non-economic aspects of national life. Education is considered to be a necessary infrastructure for development. It is expected to produce the required manpower to meet the needs of rapid economic development of the country. Further, education is to develop creative faculties of people, their capacity for enjoyment, a spirit of critical appreciation of arts, literature and other creative activities and an informed citizenry. It is also expected that education would promote creation of a social order based on the values of freedom, social justice and equal opportunity. Our First Five-Year Plan says:

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7 Report of the Advanced Training Seminar on Educational Planning and Management, 1972 (Asian Institute of Educational Planning and Administration, New Delhi), p.114.

Education is of basic importance in the planned development of a nation. The educational machinery will have to be geared for the specific tasks which the nation sets itself through the plan so as to make available in the various fields, personnel of suitable quality at the required rate. The education system has also an intimate bearing on the attainment of the general objectives of the Plan in as much as it largely determines the quality of the manpower and the social climate of the community.<sup>8</sup>

Further, the Second Five-Year Plan states:

The system of education has a determining influence on the rate at which economic progress is achieved and the benefits which can be derived from it. Economic development naturally makes growing demands on human resources and in a democratic set-up it calls for values and attitudes in the building up of which the quality of education is an important element.<sup>9</sup>

Our Third Five-Year Plan also recognized very clearly the role of education in socio-economic development of the country. It asserts: "Education is the most important single factor in achieving rapid

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8 The First Five Year Plan (Planning Commission, Government of India, New Delhi, 1951), p.525.

9 The Second Five Year Plan (Planning Commission, Government of India, New Delhi, 1956), p.500.

economic development and technological progress and in creating a social order founded on the values of freedom, social justice and equal opportunity".<sup>10</sup>

Further, considering the size of the population, the First Five Year Plan observes that the overall provision of educational facilities was very inadequate. It sums up the needs of the contemporary situation as,

- (i) re-orientation of the educational system and integration of its different stages and branches;
- (ii) expansion in various fields, especially in those of basic and social education, remodelled secondary education and technical and vocational education;
- (iii) consolidation of existing secondary and university education and the devising of a system of higher education suited to the needs of the rural areas;
- (iv) expansion of facilities for women's education, especially in the rural areas;
- (v) training of teachers, especially women teachers and teachers for basic schools and improvement in their pay-scales and conditions of service; and

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10 The Third Five Year Plan (Planning Commission, Government of India, New Delhi, 1961), p.573.



- (vi) helping backward States by giving preferential treatment to them in the matter of grants.<sup>11</sup>

The needs of reorientation of the educational system as a whole, consolidation of higher education and expansion in various fields of education have been emphasized in the first three five-year plans. However, objectives of reorientation of the educational system could not be achieved because the programme of basic education was almost dropped by the end of the third five-year plan and social education also was not given adequate attention by the planners and administrators. But we find rapid linear expansion of educational facilities which met the social demand of education to some extent. This is evident from the progress of literacy<sup>12</sup> and number of students at various levels of education in India (See the tables below):

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11 The First Five Year Plan, op.cit., p.529.

12 According to the Census, a person who can both read and write with understanding in any language is literate.

Table-1: Literacy in India, 1901-1971

Census Year	Percentage of literate population to total population	Percentage of literate males to total male population	Percentage of literate females to total female population
1901	05.35	09.89	00.69
1911	05.92	10.56	01.05
1921	07.16	12.21	01.81
1931	09.50	15.59	02.93
1941	16.10	24.90	07.30
1951	16.67	24.95	07.93
1961	24.02	34.44	12.95
1971	29.46	39.45	18.72

Note : The data for 1901 to 1931 is for undivided India: That for 1951 excludes Jammu & Kashmir.

Source: C.L. Sapro (ed.), Demographic and Educational Statistics in India (NIEPA, New Delhi, 1980), p.8.

Table-2: Composition of Students at various levels of Education

Stage and age group	1950-1951	1955-1956	1960-61 (likely achievement)	1965-66 (target)
Primary (6-11) % of the age group	42.6	52.9	61.1	76.4
Middle (11-14) % of the age group	12.7	16.5	22.8	25.6
Secondary (14-17) % of the age group	05.3	07.8	11.5	15.4
University (17-23) % of the age group	00.9	01.5	01.8	02.4

Source: The Third Five Year Plan (Planning Commission, Government of India, New Delhi, 1961), Table-1 & 4, pp.574, 576.

Further, analysis of the demographic composition of relevant age-group of population at various stages of education, was made and targets fixed to be achieved during the plan periods. In addition, even in case of higher education the First Five-Year Plan states: "It should be a principle of State policy that none who has the capacity to profit by higher education should be debarred from getting it".<sup>13</sup>

Thus we can say that our first three five-year plans have been guided by the 'socio-cultural approach' to educational planning.

Phase-II (1969-1978):

Educational developments during the period 1966-69, were guided by annual budgetary planning as in other sectors of socio-economic development. Hence, no systematic long-term approach to planning is visible during this period.

However, the 'Manpower Requirement Approach' became dominant in educational planning in general, and, higher/

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13 The First Five Year Plan, op.cit., p.528.

technical education in particular, with the commencement of the Fourth Five Year Plan. It has been recognized from the beginning of the five-year plan that education played<sup>a</sup> very important role in economic growth of the country by training skilled manpower for specific tasks of development. The Fourth Five-Year Plan asserts: "A suitably oriented system of education can facilitate and promote social change and contribute to economic growth not only by training skilled manpower for specific tasks of development but, what is even more important, by creating the requisite attitudes and climate".<sup>14</sup>

In fact, preliminary exercises at the application of 'manpower approach' at the University stage had begun with the Scientific Man-Power Committee, appointed by the Government of India in March 1947. Further, the University Education Commission<sup>15</sup> (1948-49) surveyed the engineering and technological institutes of our country giving first degrees or diploma equivalent to degrees as regards their equipment, staff, intake and output of students, and courses of study. The

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14 The Fourth Five Year Plan (Planning Commission, Government of India, New Delhi, 1969), p.352.

15 The Report of the University Education Commission 1948-49, vol.I (Ministry of Education, Government of India, New Delhi, 1962), p.234.

Education Commission<sup>16</sup> (1964-66) took a comprehensive and a long-term perspective (1965-85) of manpower requirements (matriculation and above) in various sectors of the economy, e.g., industry, agriculture and service sectors.

Against this background, the Fourth Five-Year Plan adopted 'Manpower requirement approach' especially at the higher level of education. For the first time, the Chapter on education in the fourth plan was entitled "Education and Manpower" and it was further subdivided into two parts: (I) Education, and (II) Manpower. In addition, the first paragraph of part-II categorically held:

Ideally educational development at the higher level should be broadly related to the pattern of jobs and the estimates of demand in the economy for educated manpower. This is important both for the individual and society. The individual is enabled to take decisions about future careers with the assurance that his training will be put to proper use and he would be productively employed. The gain to society flows from

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- 15 The Report of the University Education Commission 1948-49, vol.I (Ministry of Education, Government of India, New Delhi, 1962), p.234.
- 16 The Report of the Education Commission 1964-66 (NCERT, New Delhi, 1971), pp.169-90.

the fact that a timely view of educated manpower required to achieve the varied tasks of economic development makes it possible to provide adequately, yet not excessively, for the scale and pattern of educational development which will best serve the purpose.<sup>17</sup>

The fourth plan also felt that 'fresh estimates should be made periodically to overcome the problem of maladjustment between educated manpower and employment opportunities which is inherent in the manpower forecasting approach. Further, it was realized that as manpower is not homogeneous, manpower planning has to concern itself with different categories, such as doctors, nurses, engineers, agricultural graduates and craftsmen, each having its own level of education and specialisation. Therefore, the plan has discussed the provision of educational facilities to meet the estimated manpower requirements of some of the important categories, such as, medical personnel agricultural personnel and engineering personnel. For example, see admission and out-turn of medical graduates in the table given below:

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Table-3: Admission and Out-turn of Medical Graduates

Year	Colleges	Annual Admission	Annual Out-turn
(1)	(2)	(3)	(4)
1961	66	07,008	04,068
1962	71	07,348	03,992
1963	79	09,667	04,179
1964	81	10,227	04,415
1965	87	10,520	05,135
1966	89	11,079	06,159
1967	91	11,106	07,407
1968	93	11,500*	09,080*
1973	103	13,000*	10,300*

\*Provisional estimates

Source: The Fourth Five Year Plan (Planning Commission, Government of India, New Delhi, 1969), p.367.

Thus, we can say that manpower requirement approach became dominant in educational planning, especially at the higher (professional) levels of education, with the commencement of the fourth five year plan. This trend continued during the fifth five year plan.

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Phase-III (1980-90):

During the current decade, the emphasis in educational planning has shifted to 'the Human Resource Development' Approach. Human resource development is considered to be a necessary condition for all kinds of growth -- social, economic, political and cultural. The Seventh Five-Year Plan states: "Human resource development has necessarily to be assigned a key role in any development strategy".<sup>18</sup> The approach to the Seventh Plan has emphasised that one of the primary tasks is the harnessing of the country's abundant human resources and improving their capability for development with equity. Moreover, education is considered to be one of the main sources of human resource formation. According to the Sixth Five-Year plan, "education, broadly perceived as a seamless continuum of life long learning, is essential for human resource development at every age level".<sup>19</sup> Trained and educated on sound lines, a large population like

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18 The Seventh Five-Year Plan (Planning Commission, Government of India, New Delhi, 1985), p.252.

19 The Sixth Five-Year Plan (Planning Commission, Government of India, New Delhi, 1980), p.352.



India's can itself become an asset in accelerating economic growth and in ensuring social change in desired direction.

The function of education is recognized in developing basic skills and abilities and fostering a value system conducive to, and in support of, national development goals, both long-term and immediate.<sup>20</sup> In a package of developmental inputs available to the community, education forms an effective means to improve the status and character of living patterns of the people, help intellectual, social and emotional development of the individuals and to enable them to meet their basic needs of daily life. The long range goal of educational planning is then to make available diverse networks of facilities and programmes for education, combining formal and non-formal modes of learning. Education is to enable all citizens to acquire literacy, numeracy, computational skills, basic understanding of the surrounding world and functional skills of relevance to daily life and to local environment.<sup>21</sup>

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20 The Seventh Five Year Plan, loc.cit.

21 The Sixth Five-Year Plan, loc.cit.

Further, the programmes of human resource development, according to the Sixth Plan, have a four-fold perspective: (i) to prepare individuals for assuming their role as responsible citizens; (ii) to develop in them scientific outlook, awareness of their rights and responsibilities as well as a consciousness of the process of development; (iii) to sensitise them to ethical, social and cultural values which go to make an enlightened nation; and (iv) to impart to them knowledge, skills and attitudes which would enable them contribute to the productive programmes in the national development.<sup>22</sup> In all this, education is assigned an important role.

Now, we will deal with the approaches to educational planning in specific areas and at various stages of education in India.

### Elementary Education

The socio-cultural approach has been adopted at this stage throughout the plan period. Elementary

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22 The Sixth Five Year Plan, op.cit., p.255.

education has been seen as an end in itself. According to our Constitutional directive,<sup>23</sup> elementary education (6-14 years) should have been made free, universal and compulsory by 1960. Though our Five-Year Plans have kept on postponing the target year, they have stuck to achievement of the objective. In the Seventh Five-Year Plan 'overriding priority' has been given to 'realizing universalization of elementary education by 1990.'<sup>24</sup>

Elementary education has been considered a social infrastructure for development. It has also been seen as a social investment to which returns should not be calculated in money terms. It is an investment in values - highly desirable or indispensable to the society. Our Fifth Five-Year Plan states: "Apart from being a Constitutional obligation, the provision of universal elementary education is crucial for spreading mass literacy, which is a basic requirement for economic development, modernisation of the social structure and the effective functioning of democratic institutions. It also represents an

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23 The Constitution of India, op.cit., p.26.

24 The Seventh Five Year Plan, op.cit., p.194.

indispensable first step towards the provision of equality to all its citizens".<sup>25</sup>

Attention has been given both to quantitative and qualitative aspects of elementary education from the beginning of planning. Emphasis is given on expansion of educational facilities and increasing enrolment of children, especially those belonging to backward states and backward sections of society such as, girls, scheduled castes and scheduled tribes by giving special incentives to them. This shows planners' concern with 'social justice'. The expansion of education during the plan period is given in the table below (see the table).

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25 The Fifth Five-Year Plan, op.cit., p.194.

Table-4: Educational Development from 1950-51 to 1989-90

Sl. No.	Item	1950-1951 (Actual)	1960-1961 (Actual)	1970-1971 (Actual)	1980-1981 (Actual)	1984-1985 (Likely)	1989-1990 (Projected)
<b>A. INSTITUTIONS (Number)</b>							
i.	Primary (6-11 age group)	209,671	330,399	408,378	485,538	550,000*	
ii.	Middle (11-14 age group)	013,596	049,663	090,621	116,447	140,000*	
<b>B. ENROLMENT BY STAGES ('000)</b>							
i.	Primary (6-11 age group) (I-V Classes)	019,155 (42.6)	034,994 (62.4)	057,045 (76.4)	072,688 (83.1)	085,377 (91.84)	95,960 (99.89)
ii.	Middle (11-14 age group) (VI-VIII Classes)	003,120 (12.7)	006,705 (22.5)	013,315 (34.2)	019,846 (40.0)	026,729 (53.07)	041,670 (79.46)

Source: The Seventh Five Year Plan (Planning Commission, Government of India, New Delhi, 1985), Annexure 10.1, p.265. See also, Table-10.1, p.256 for projected enrolment.

Regarding quality of education, 'basic education' had been taken as the major step for reorientation of elementary education during the first three five year plans.

Basic education is based on the principle of 'earning while learning' and 'learning by doing'. Besides literacy, it places emphasis on craft work in both its educational and productive aspects.

The First Five Year Plan accepted basic education as the pattern for elementary education and basic education programmes began to be implemented effectively for the first time.<sup>26</sup> The second Plan recognized 'reorientation of the system of education on basic lines' as one of the problems of elementary education. It was also realized that the practical value of basic education and even its financial return could be increased by linking it up with allied programmes like agriculture, village and small-industries, cooperation, development and national extension service, etc., and thereby giving a definite place to institutions imparting basic education in the scheme of development in each district and each block.<sup>27</sup>

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26 The First Five-Year Plan, op.cit., p.534.

27 The Second Five-Year Plan, op.cit., p.507.

The progress made in basic education and the targets set for the second plan are indicated below:

Table-5: Development of Basic Education

	1950-51	1955-56	1960-61
Schools	001,751	0,010,000	0,038,400
Enrolment	185,000	1,100,000	4,224,000
Training schools	000,114	0,000,449	0,000,729

In 1950-51 the number of children going to basic schools accounted for less than 1 per cent of the total number of children at the elementary stage; the proportion increased to nearly 4 per cent by the end of first plan and was expected to rise to 11 per cent by 1960-61.<sup>28</sup>

The strategy was to open new basic schools and convert gradually the existing elementary schools into basic ones. Further, during the Third Plan it was proposed to convert about 57,760 schools into basic schools, to orient the remaining institutions along basic lines, to establish basic schools in urban areas, and to link up

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28 Ibid., p.506.

basic education with the development activities of each local community.<sup>29</sup>

But the programmes of basic education were dropped with the beginning of the Fourth Five Year Plan and use of the term 'work-experience' came in vogue. Now onwards, programmes of quality improvement aimed at improving the building and equipment position of the elementary schools and providing them with science kits, radio sets and television sets. In addition, opening of 'experimental schools' was visualized which involved a considerable amount of work to be done by the National Council of Educational Research and Training.<sup>30</sup> This has culminated into the opening of 'Navodaya Vidyalayas' in each district during the Seventh Plan.

### Secondary Education

At this stage, our planning has been guided mainly by considerations of the 'manpower approach' and partly by the 'socio-cultural approach'. However, all the necessary steps which are involved in these approaches have not been taken.

#### Third

29 The Five Year Plan, op.cit., p.582.

30 The Fifth Five-Year Plan, op.cit., p.195.



The four-fold objectives in secondary education, as described in the First Five-Year Plan are as follows: In the first place, secondary education must be closely related to the psychological needs of the adolescents for whom it is being designed. Secondly, it should be vitally related to the existing socio-economic situation, the directive principles of State policy laid down in the constitution and the approved schemes for social and economic reconstruction. In order to equip the youth adequately for the needs of the existing socio-economic situation, it is necessary to give secondary education a vocational bias. Thirdly, secondary education should grow from the education that is being given at the primary stage, i.e., it should be closely integrated with basic education and its essential underlying principles. Fourthly, the planning of secondary education must also have in view the creation of leadership at the intermediate level, because, for the majority of students, formal education comes to an end at this stage. Moreover, the standard to be attained should be high enough, on the one hand to make the majority of students whose education ends at the secondary stage to be efficient workers and, on the other, to enable the minority who proceed to higher education to profit from the instructions they receive at

these institutions.<sup>31</sup>

Problems of secondary education were reviewed by the Secondary Education Commission<sup>32</sup> (1952-53) under the Chairmanship of Dr. Lakshmanaswami Mudaliar. The Commission considered the basic short-comings of the contemporary secondary schools and observed that the curricula then followed and the traditional methods of teaching did not give students sufficient insight into every day world in which they lived and failed to train the whole personality of the people. The Commission felt need for new re-orientation in the system of secondary education as a whole. It, therefore, made proposals for bringing about a greater diversity and comprehensiveness in educational courses and providing more comprehensive courses which would include both general and vocational subjects. The recommendations formed the basis of programmes adopted by the Centre and the States during the second and third plan periods.

Secondary education is mainly aimed at preparing manpower to meet the needs of various sectors of the economy. Our Second Five-Year Plan explicitly states that,

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31 The First Five Year Plan, op.cit., p.538.

32 Report of the Secondary Education Commission (Ministry of Education and Social Welfare, Government of India, New Delhi, 1972).

The requirements of teachers, workers in national extension and community project areas, cooperative personnel, revenue administrators, technical and supervisory personnel in industry, agriculture and other fields of development have to be met mainly from the age-group 14-17 years.<sup>33</sup>

To tackle the problem of wastage and mis-direction, it was realized that these should be increasing diversification of courses, so that students could be guided and directed to secure training in courses according to their aptitudes and capacities. This object was to be attained, as recommended by the Commission, through introduction of crafts and diversified courses, better facilities for science teaching, establishment of multi-purpose schools and junior technical schools as well as upgrading of the high schools to higher secondary schools.<sup>34</sup> Measures were taken to implement these programmes to a limited extent during the second and the third plans. Reconstruction along these lines involved a major revision of the secondary school curriculum and the introduction of new techniques and procedures. Therefore, subjects such as general science and social studies and various elective

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33 The Second Five-Year Plan, op.cit., p.509.

34 Ibid., p.509.

courses were introduced. Priority was given to the expansion and improvement of science education. The Third Plan proposed to provide general science in all the secondary schools as a compulsory subject and science of an elective standard in more than 9,500 out of 21,800 secondary schools. Curriculum also included crafts as one of the core subjects. During the first two plans 2115 multi-purpose schools were established which offered practical courses in Technology, Agriculture, Commerce, Home Science and Fine Arts in addition to humanities and science of the academic streams.<sup>35</sup>

Moreover, during the first two plans 3,121 higher secondary schools were established in different states and the number expected to rise to 6,390 by the end of the Third Plan.<sup>36</sup> Other measures of reorganisation included improvement in craft teaching, organisation of school libraries, the better use of audio-visual techniques, etc.

Further, since the beginning of the Fourth Five-Year Plan, the programmes of reorganisation of secondary education have been guided by the recommendations of the Kothari

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35 The Third Five Year Plan, op.cit., p.587.

36 Ibid., p.505.

Commission.<sup>37</sup> The Commission proposed reorganisation of secondary education on the uniform all-India pattern of 10+2+3. Moreover, it emphasised the needs of vocationalization and quality improvement at this stage. It also held that expansion should be on a selective basis and the output of educational institutions should be broadly related to manpower needs for employment opportunities. The Commission assessed the manpower needs and related it to enrolment and employment opportunities for the next twenty years. In line with the Commission, our National Policy on Education (1968) stated:

There is need to increase facilities for technical and vocational education at this stage. Provision of facilities for secondary and vocational education should conform broadly to requirements of the developing economy and real employment opportunities. Such linkage is necessary to make technical and vocational education at the secondary stage effectively terminal. Facilities for technical and vocational education should be suitably diversified to cover a large number of fields such as agriculture, industry, trade and commerce, medicine and public health, home management, arts and crafts, secretarial training, etc.<sup>38</sup> (National Policy on Education 1968--11(b))

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37 Report of the Education Commission, 1964-66  
op.cit., pp.169-90.

38 Ibid., p.xx.

Reorganisation of secondary education has been adopted on 10+2+3 pattern since the fourth Plan both at national and state levels. Emphasis has been "on relating secondary education more intimately to the economic and social needs of the country". Moreover, failure of early attempts at reorganisation has been recognised in the Fifth Plan which says: "Efforts will be made to restructure the educational patterns so that secondary education does not, as hitherto, prepare students only for entering a University but also fits them for diverse occupations".<sup>39</sup>

Now, programmes of qualitative improvement comprise of upgrading teacher competence, provision of better physical facilities, libraries and laboratory equipment, and strengthening educational research and extension. National Council of Educational Research and Training (NCERT) and State Institutes of Education have taken up the task to work out the programmes of qualitative improvement in the fields of evaluation and guidance, curriculum construction, extension,

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39 The Fifth Five-Year Plan, op.cit., p.196.

text-book production, educational research and science education. The Seventh Plan has aimed at strengthening the teaching of science and mathematics at high/higher secondary stage of education and making it universal.<sup>40</sup>

One of the important links between education and development is provided by manpower development through vocationalisation of secondary education related to employment. According to the sixth plan:

This has to be carefully designed, based on detailed surveys of existing and potential work opportunities and of available educational facilities. It should also keep in view the specific roles and responsibilities of the different agencies and ensure coordination at the operational level between the developmental programmes and the educational system.<sup>41</sup>

Programmes of vocationalisation and work-experience include full use of existing training facilities in the Industrial Training Institutes, Polytechnics, Agricultural Polytechnics etc., and expanding these facilities according to the assessed demand for their products.<sup>42</sup> For the provision of relevant practical skills, agencies like Krishi Udyog and Van Vikas Kendras and other vocational

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40 The Seventh Five-Year Plan, op.cit., p.258.

41 The Sixth Five-Year Plan, op.cit., p.357.

42 The Fifth Five-Year Plan, op.cit., p.196.

training centres are to be utilized, particularly for learning by doing. Similarly, experienced craftsmen and practitioners of the arts are to be used for imparting operational skills without undue insistence on pedagogic certificates. New facilities are preferably to be located in the rural areas.<sup>43</sup> In view of the importance of linking education with productivity, the Seventh Five Year Plan seeks to suitably diversify vocational education to cover a large number of fields in agriculture, industry, trade and commerce, and services. The skills imparted are to be of adequate standard for security gainful employment or self-employment.<sup>44</sup>

The Seventh Plan also aims at using the present wide reach of the media for improving education at the secondary stage. Facilities for production of the requisite audio-visual material including educational software for broadcasting and telecasting are to be substantially augmented and the computer literacy programme extended.<sup>45</sup>

Further, our five-year plans have applied the 'socio-cultural approaches' to a limited extent at the secondary

43 The Sixth Five-Year Plan, loc.cit.

44 The Seventh Five-Year Plan, loc.cit.

45 The Seventh Plan, p.259.



stage. It has been recognized that expansion of elementary education would inevitably increase demand for secondary education, especially from backward section of the population. Therefore, expansion of educational facilities at secondary stage has been done, though reluctantly over the successive five-year plans. Reluctance in this respect is obvious when our First Five-Year Plan observes that the general problem in the field of secondary education was one of consolidation rather than expansion.<sup>46</sup> However, generally it has been felt throughout the plan period that "facilities have to be provided for their (deprived people's) education since such education is the only means of social mobility and economic independence, particularly among the socially disadvantaged".<sup>47</sup> Moreover, our National Policy on Education (1968) categorically stated that "Facilities for secondary education should...be expanded expeditiously to areas and classes which have been denied these in the past". As a result, there has been substantial increase in enrolment at secondary stage after Independence (see the table below).

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46 The First Five-Year Plan, op.cit., p.526.

47 The Sixth Five-Year Plan, op.cit., p.356.

Table-6: Expansion of Secondary Education, Pupils in the Age-Group 14-17 (Classes IX-XI)

Year	Enrolment (in Million) in Classes IX-XI			Percentage of population in age-group 14-17		
	Boys	Girls	Total	Boys	Girls	Total
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1950-51	1.02	0.19	1.21	8.8	1.7	5.4
1955-56	1.65	0.33	1.98	13.0	2.8	8.0
1960-61	2.47	0.56	3.03	17.5	4.3	11.1
1965-66	4.08	1.20	5.28	25.6	7.9	17.0
1968-69	5.09	1.74	6.83	29.0	10.0	20.0
1973-74 (anticipated)	6.16	2.34	8.50	31.0	12.0	22.0
1978-79 (target)	8.04	3.17	11.21	36.0	15.0	26.1

Source: The Fifth Five-Year Plan (Planning Commission, Government of India, 1974),  
Table-5, p.196.

Special attention has been given to the educational problems of backward areas and backward section of the population. Special scholarship schemes have been introduced for promotion of education of girls and scheduled castes and scheduled tribes in the plans. In addition, reservation has been introduced for Scheduled Castes/ Scheduled Tribes in admissions. Opening of schools in backward areas has been given priority in the plans. These steps have widened the reach of the deprived section in education which reflects concern with 'social justice' in our educational planning.

Our five-year plans have also recognised the importance of cultural role of education at the secondary stage. Our Seventh Plan says that education has a crucial contribution to make towards promoting national integration, understanding and a sense of togetherness and harmony at the secondary stage. Therefore, this plan feels 'great need for an integrated and value oriented education with a national perspective'. Various threads of this programme are expected to be woven into the curricular and co-curricular activities. Suitable revision of text books, strengthening of school libraries and training of teachers

are considered to be important from this point of view.<sup>48</sup>

### University Education

Educational Planning at the college and University stage also has been guided mainly by the Manpower Requirement Approach throughout the plan period. Considerations of 'social demand' and 'social justice' approaches have attracted least attention. The most important function of education at this level is considered to be the fulfilment of the country's manpower requirements. Hence, it is held that the pattern and quality of educational output has to be geared to the economy's manpower needs. The Educational system has to be directed in a way that produces qualified people in the right number and places. Further, a long-term perspective has to be adopted so that changing needs of manpower could be taken into account.

The Ministry of Education appointed the University Education Commission (1948-49),<sup>49</sup> to examine the entire question of University education. The Commission suggested comprehensive and far-reaching reforms which have been incorporated in successive five-year plans.

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48 The Seventh Five-Year Plan, op.cit., p.259.

49 Report of the University Education Commission, 1948-49. vol.I (Govt. of India, Ministry of Education, New Delhi).

It was upheld in the very beginning of the planning that "university education should acquire greater purpose and direction and fit more closely into plans of economic and social development".<sup>50</sup> Of late, our seventh five year plan, asserts that: The main emphasis in higher education will be on consolidation, improvement in standards and reforms in the system to make higher education more relevant to national needs and to forge forward and backward linkages of higher education with employment and economic development.<sup>51</sup>

Our first plan noted that higher education was plagued with the problems of financial scarcity, overcrowding in colleges and low standard of teaching. Therefore, this plan thought of reorganisation of University education which was three-fold: "The reform of the existing system to enable it to yield the best results it is capable of yielding, the building up of a new system or systems (such as rural universities) more suited to our national needs and the working out of the relationship of the various systems, while they exist side by side".<sup>52</sup>

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50 The Second Five Year Plan, op.cit., p.512.

51 The Seventh Five Year Plan, op.cit., p.259.

52 The First Five Year Plan, op.cit., pp.539-42.

Improvement of the quality of University and college education has been a consistent concern throughout the plan period. Several measures have been taken in this regard. These include setting up of rural institutes, the institution of three-year degree courses, organisation of tutorials and seminars, improvement of physical facilities such as buildings, laboratories and libraries, curriculum and examination reform, production of improved textbooks, especially in the regional languages, promotion of innovations, improving teacher competency, provision of hostel facilities, stipends for meritorious students and scholarships for research. Emphasis has also been given on consolidation and increased provision for technical and scientific education in the Universities. In the area of post-graduate education and research emphasis has been placed on promoting the research and development capability of the University stream and on inter-disciplinary studies, particularly in new emerging areas of knowledge, relevant to national development objectives. The centres of advanced study, which are intended to encourage the pursuit of excellence, have been developed.

Other steps in quality improvement involves making

admissions at the post-graduate level selective and selecting institutions to be recognised as autonomous colleges for promoting innovations in curriculum, methods of teaching evaluation of students, etc. (See 5th Plan and 7th Plan.). Moreover, collaboration between the Universities themselves and among them and the National Laboratories and various user-agencies is sought to be encouraged. Further, the Seventh Plan says that beneficial linkages will be developed between colleges and development institutions and programmes and application oriented courses will be given due emphasis.

Preliminary exercises in manpower planning in higher education started with the Scientific Manpower Committee,<sup>53</sup> appointed by the Government of India in March 1947. The Committee estimated requirements of scientific manpower of the senior grade (for which M.Sc., and Ph.Ds. alone could be employed) for Government and Government sponsored activities (including science teachers, but not including the personnel required for Industry) and the possible out-turn of M.Sc. and Ph.Ds., during the next five years if all the existing facilities were fully utilized (see appendix I...). The Committee found a wide gap between

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53 Report of the Scientific Man-Power Committee, 1948, Chapter-II, Table-IV, p.29.

the probable requirements and the anticipated output. The gap was also qualitative which was especially caused by the shortage of teachers in science. Therefore, the Committee made two important recommendations: the first was to have a large number of post-graduate and research scholarships and free places at the Universities, and the second was to up-grade the salaries of teachers.

Secondly, the Kothari Commission<sup>54</sup> (1964-66) took a major step in the application of manpower requirement approach at this level. It made a comprehensive and long-term (1965-85) assessment of manpower needs of various sectors of economy, such as, industry, agriculture, trade and commerce and services. It also co-related this to the rate of enrolment and available employment opportunities (see Appendix-IIIa, b, c).

Further, a very limited expansion of higher education has been advocated from the very beginning of the planning. The First Plan emphasised the need to "develop and apply selective tests on a large scale so that nobody is allowed to go up for higher education who is not fit to profit by it".<sup>55</sup> However, number of colleges and universities

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54 Report of the Education Commission 1964-66, op.cit., pp.169-190.

55 The First Five-Year Plan, op.cit., p.542.



increased which met the 'social demand' of higher education to a certain extent (see the tables below):

Table-7: Development of Higher Education, 1950-51 to 1984-85

Institution	1950-51 (Actual)	1960-61 (Actual)	1970-71 (Actual)	1980-81 (Actual)	1984-85 (Likely)
Art, Science & Commer college	548	1,161	2,587	3,393	3,500
Professional college	147	0,381	1,017	1,382	1,500
Universities and deemed Universi- ties	28	44	93	123	135

Source: The Seventh Five Year Plan, Annexure 10.1, p.265.

Table-8: Expansion of University Education

Enrolment/ Percentage	1950- 1951	1955- 1956	1960- 1961	1965- 1966	1968- 1969	1973- 1974 (antici- pated)	1978- 1979 (Tar- get)
Total enrolment* (Million)	0.33	0.54	0.74	1.24	1.69	3.00	4.65
Percentage of age group (17-23)	n.a.	n.a.	1.50	2.30	2.90	4.40	6.00

\*Arts, Science and Commerce subjects excluding intermediate students of U.P. Board but including the Pre-University classes run by the Universities.

Source: The Fifth Five-Year Plan, Table-7, p.198.

In addition, a network of facilities have been provided through correspondence courses, evening colleges, private study, part-time education and Open Universities to meet social demand and the needs of continuing education.

Consideration of 'social justice' has also influenced planning of higher education to a very limited degree. Special provisions have been made for increasing the

proportion of women students in colleges and Universities. These include special scholarships, liberal assistance for women's colleges and women's hostels and introduction of courses of special interest to women such as, Home Science, Music, Drawing, Painting, Nursing etc. Moreover, policy of positive discrimination for scheduled castes and scheduled tribes, included reservation of seats in admission, special scholarships and fellowships, coaching classes, etc. In addition, our Seventh Plan proclaims that expansion of general higher education facilities will be carefully planned so as to take care of the need to provide larger access to weaker sections and first generation learners from backward areas. In doing so, emphasis will be laid on providing access to existing institutions through appropriate reservation, scholarships, provision of hostel facilities, etc. Besides concerted efforts to increase the enrolment of SC/ST students, the most significant programmes for these students will consist of remedial teaching, preparatory training and special coaching. The scope of these programmes will also be enlarged to include training for employment, coaching for competitive examinations for recruitment to various services and adult and continuing education programmes.<sup>56</sup>

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56 The Seventh Five-Year Plan, op.cit., pp.259-60.

### Technical Education

Application of the Manpower Requirement Approach has been very evident at the level of technical and professional education in our five-year plans. It has been assumed that the most important function of technical educations is to produce the required manpower of various sectors of the economy. Hence, technical education is directed to produce right number of requisite trained personnel at the right time. The pattern and quality of educational output is sought to be geared to the economy's manpower needs. Moreover, a long-term perspective is adopted so that the changing needs of manpower could be taken care of.

In our five-year plans, the assessment of manpower requirements is considered to be one of the basic conditions of economic development. Educational programmes in the field of engineering and technology and craftsmen training, are designed to help in building up the trained personnel required for the scheme of agro-industrial development, training and research. In formulating programmes, it has been recognised that advances in the field of science and technology would necessitate from

time to time, for changes in patterns of training and for improvements in the system of education.

In the very beginning, the planners realized the shortage of manpower for socio-economic development of the country. Our second plan observed: "In each sector of development technical personnel are needed in rapidly increasing numbers...the requirements for engineering and technological personnel will be on a scale exceeding the capacity of existing institutions".<sup>57</sup> Therefore, a rapid expansion of facilities for technical and professional education, such as engineering and technology, management, commerce and medical education had been advocated during the first three five-year plans. (See appendix-IV a, b, c, d for development of technical education).

The emphasis on technical education shifted from expansion to the consolidation and optimum utilization of existing facilities and quality improvement since the beginning of the fourth plan. This step was taken to tackle the problem of unemployment among technical personnel and to accelerate economic development of the country. Efforts towards consolidation sought to ensure

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57 The Second Five-Year Plan, op.cit., p.512.

that the development schemes initiated in the earlier plans would be completed in all their aspects and the facilities would be modernised in keeping with the state of art in the technology area as incorporated in the national economic sectors. It was expected that these would help increase the efficiency of the system, reduce the wastage and bring up the present courses beyond the critical level for optimum utilization.<sup>58</sup>

The quality improvement programmes comprise faculty development, curriculum reforms, preparation of instructional materials and modernization of laboratories, workshops and obsolete equipment to keep pace with the changing technological requirements. Moreover, attention has been paid from the very beginning of the planning to develop institutional linkages between technical education on the one hand, and industry, rural development and other development sectors, on the other.

Another area of emphasis in technical education especially since the sixth plan has been the identification of critical areas and creation of necessary facilities for education in emerging technologies in the light of proper assessment of future technological manpower

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58 The Sixth Five-Year Plan, op.cit., p.359.

requirements. In the light of studies already made, facilities are being developed for manpower training in areas like computer science, product development, maintenance engineering instrumentation, and bio-sciences. Centres for advanced studies and research are also being set up in selected institutions in emerging technologies like bio-conservation, laser technology, micro-processors development and application, fibre optics and optical communication remote sensing technology, energy systems, reliability engineering and atmospheric sciences.

The Scientific Manpower Committee, appointed by the Government of India in March 1947, for the first time assessed the requirements for scientific and technical personnel for five to ten years (1947-52, 1952-57) to meet the demands of the various Government department (civil only, excluding Defence) for schemes of expansion of industrial and agricultural production, transport, medicine, education and other fields in accordance with declared policies of the Government (see appendix-I). The Committee observed that the prospective supply fell far below the demand. The Committee made two important recommendations: first was to have a large number of

post-graduate and research scholarships and free places at the Universities, and the second was to upgrade the salaries of teachers.

The University Education Commission (1948-49) surveyed the engineering and technological institutes of our country giving first degrees or diploma equivalent to degrees as regards their equipment, staff, intake and output of students, and courses of study (see appendix-II). With a view to improving the quality and quantity of different classes of engineers and technologists, the Commission made the following recommendations:<sup>59</sup>

- i. that steps should be taken to improve the usefulness of the existing engineering and technological institutes of the country;
- ii. the number of engineering schools of different grades be increased particularly for training of grades 4 and 5 (foremen, craftsmen, draftsmen, overseers, etc.);
- iii. that engineering schools cover a large number of fields and branches of engineering to meet the increasingly varied needs of the country;
- iv. that wherever possible, the existing engineering and technological colleges be upgraded for post-graduate training and research in selected subjects.

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59 The Report of the University Education Commission, 1948-49, op.cit., p.255.

The Education Commission (1964-66) made a comprehensive and long-term (twenty years - 1965-85) assessment of manpower requirements of scientific and technical personnel and correlated it to the rate of enrolment and available employment opportunities (see appendix III, a, b, c).

Our first four five-year plans have also made assessment of number of institutions, intake and output of engineering, technological and medical personnel (see appendix-IV a, b, c, d).

#### Social Education

'Social education' forms an important part of educational planning in India. The concept of adult education, which was mostly confined to literacy was found to be too narrow to be able to meet the various needs of the adults. It was, therefore, widened in the first plan to include, in addition to literacy, the health recreation and home life of the adults, their economic life and citizenship training, and to denote this new concept the term 'social education' was coined. However, the terms 'social education' and 'adult education' have



been used interchangeably in our five-year plans. According to the First Five-Year Plan:

Social education implies an all-comprehensive programme of community uplift through community action. External aid may be there but only to stimulate, and not to replace, community effort. The importance of such a programme is obvious. It should not only make our limited resources much more effective but also build up a self-reliant nation.<sup>60</sup>

The main objective of social education has been to stimulate the human factor (adults, particularly in the productive age-group 15-35 years) to respond fully to the national plans socio-economic development.

There are two important aspects of social education. First, eradication of adult illiteracy and the development of a programme of continuing adult education is a major thrust area. Our plans lay emphasis on minimum essential education to all citizens, irrespective of their age, sex and residence. Another aspect of education of adults relates to training in functional skills relevant to their respective economic activities. The programmes aim at extending appropriate educational support to the concerned group of individuals and

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60 The First Five-Year Plan, op.cit., pp.542-43.

development activity. Moreover, while designing programmes, the lots of the weaker sections like women, scheduled castes, scheduled tribes and agricultural labourers as well as slum dwellers are given priority.

Further, it has been realized that the strategy to achieve the goals of social education can only be through a mass movement involving social institutions, voluntary organisations, students, teachers, employers and the community. According to the Seventh Plan this programme will also have to be linked effectively with various development programmes especially the rural development programmes.<sup>61</sup>

In several directions there has been a measure of progress, as in the development of community centres village libraries, organisation of youth groups and mahila mandals, and the revitalisation of village panchayats and the cooperative movement.

Thus, we find that planning of social education has been guided by considerations of both the socio-cultural approaches and the economic approaches.

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61 The Seventh Five-Year Plan, op.cit., p.258.

Education of Girls, Scheduled Castes and Scheduled Tribes etc.

There existed wide disparities in education on the basis of sex, region, caste and class of population, such as, girls, scheduled castes, scheduled tribes, landless labourers and slum dwellers. Here, the 'Social Justice approach' has been adopted in our five-year plans for equalization of educational opportunities. Special measures have been adopted for this purpose.

Regarding girls education it had been noted in the first plan that there are particular spheres of life in which women have a distinctive spheres of life in which women have a distinctive role in which they can make a special contribution. It is recognised that in the management of the house-hold in bringing up children, in the field of social service, in nursing and midwifery, in teaching, especially in elementary schools, in certain crafts and industries like knitting, embroidery, etc., and in the field of fine arts, women have a better aptitude. However, planners took the view that women should whatever be their individual aptitudes and ambitions, not be confined to these few spheres. They

must have the same opportunities as men for taking to all kinds of work and this presupposes that they get equal educational facilities so that their entry into the professions and public services is in no way prejudiced. Therefore, to promote girls education special steps have been taken in our plans, such as, provision of special scholarships, increased hostel facilities, introduction of suitable courses, etc. This has led to substantial increase in expansion of girls education (see the table below).

Table-9: India: Literacy (1901-81): Total Population/  
Male/Female

Year	Percentage of total population	Percentage of Males	Percentage of females
1901	05.35	09.83	00.60
1911	05.92	10.56	01.05
1921	07.16	12.21	01.81
1931	09.50	15.59	02.93
1941	16.10	24.90	07.30
1951	16.67	24.95	07.93
1961	24.02	34.44	12.95
1971	29.45	39.45	18.69
1981	36.17	46.74	24.88

Source: Provision Population Totals - Paper I of 1981  
Census

The central focus in educational development of SC/ST has been their equalisation with the non-SC/ST population at all stages and levels of education. To them incentive/assistance has been provided in the form of special scholarships, increased hostel facilities, reservation in admissions and teaching, location of school buildings, balwadis and adult education centres in scheduled castes basties/mohallas and tribal villages etc. As a result literacy among them has increased (see the table below) and social mobility accelerated.

Table-10: Literacy Rates among SCs/STs and the Rest of the Population

Year	Rest of the population	Percentages	
		Scheduled Castes	Scheduled Tribes
1961	27.86 (16.59)	10.27 (3.29)	08.53 (03.16)
1971	33.80 (17.11)	14.67 (6.44)	11.30 (04.85)
1981	41.22 (29.51)	21.38 (10.93)	16.35 (08.04)

#### Physical Education:

Ever since the beginning of planning, planners have recognized the importance of physical education, games

and sports for children and youth, including students and non-students. Children and youth of the country constitute a vital and vibrant human resource of the nation. They have a right as well as an obligation to make their contribution in national affairs in general, and national development in particular. The need, therefore, of providing increasing opportunities to them to enable them to develop their personality, upgrade their functional capabilities, make themselves economically productive and socially useful, is fully recognized.<sup>62</sup>

It has been emphasised ever since the commencement of planning that physical education should form a compulsory part of the curriculum from the earliest stage to the end of the University career. Moreover, the need of physical education for non-students has also been emphasised. In line with this, a number of institutes, such as National Institute of Sports, National Museum of children, Bal Bhavans, Nehru Yuvak Kendras, etc., have been established. Various programmes have been launched, e.g., National Service Scheme, National Service Volunteer Scheme, National Cadet Corps

62 National Policy on Education 1986 -- Programme of Action (Ministry of Human Resource Development, Government of India, New Delhi, 1986), p.156.

and education of Yoga. Programmes of scouting and guiding, mountaineering and adventure have also been launched. The main objectives of the various programmes are to increase the coverage of facilities for physical activity and healthy recreation and inculcate in children and youth habits of discipline, team work and a spirit of adventure.<sup>63</sup>

The strategy adopted in recent years is two-fold. First, an attempt is being made to enable the largest possible numbers to participate through an increase in infrastructural facilities like play fields and sports equipments in rural and urban areas. The other aspect is to identify the talented and nurture them. Thus, it is apparent that considerations of socio-cultural approaches have been emphasised in the field of physical education, games and sports.

### Cultural Education

Education has also been considered desirable for development of culture. Here, education is seen as a social investment to which returns cannot be calculated in money terms. It is an investment in values which is

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63 The Fifth Five-Year Plan, op.cit., p.201.

highly desirable or indispensable to the society. This is what cultural approach to educational planning implies.

In art and culture the main concern in our five-year plans has been on the development of culture in all aspects, with emphasis on dissemination, and on the promotion and development of regional cultures and building up of a sense of the oneness and underlying unity and cohesiveness of India.<sup>64</sup> Efforts have been made to impart to the students' personality a broad-based approach that reflects values of integrity, truth, devotion, loyalty, secularism, nationalism and consciousness of their constructive role in the larger destiny of India. Our recent educational Programme of Action intends to introduce a cultural component into the educational system from primary to university levels. Here, the thrust in the first instance is on "building up a pervasive consciousness of India's cultural heritage through curriculum changes, utilisation of local material and community interaction".<sup>65</sup> This also proposes strengthening of and increased coordination between existing cultural institutions and developing new institutions.

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64 The Seventh Five-Year Plan, op.cit., p.262.

65 National Policy on Education 1986 - Programme of Action, op.cit., p.169.



Academics have been set up for the development of India's heritage in art, literature, dance, drama and music, eg., the Lalit Kala Academy (academy of fine arts), the Sahitya Academy (academy of Letters) and the Sangeet Natak Academy (academy of dance, drama and music). Preservation, documentation and conservation of our rich and varied cultural heritage have been given priority in our plans. For this purpose, the Archaeological Survey of India, the National Archives of India, the National Museum and the National Gallery of Modern Art have been established. They serve an important purpose of communicating India's underlying cultural unity. Further, our seventh plan proposes to set up Zonal Cultural Centres, the Rashtriya Manav Sangrahalaya, the Indira Gandhi National Centre for Art and the National Theatre.

#### Concluding Remarks

In brief, we can make the following observations on the basis of our above analysis in this chapter.

1. Though preliminary exercises in educational planning in India had been done during the first decade preceding the attainment of Independence, both at the official and non-official levels, a systematic

and organised effort begun with the adoption of five-year plan in 1951.

2. Broadly, there are three phases regarding the overall priority given to particular approaches to educational planning in India. The Socio-cultural approaches which comprise the Social Demand approach, the Social Justice approach and the Cultural approach had been dominant during the first three five-year plans (1951-66). Further, our fourth plan and fifth plan (1969-78) gave priority<sup>to</sup> the Manpower approach. Lastly, the Human Resource Development approach has gained ascendancy during the current decade (1980-90) in our plans.
3. There is consistency in adoption of particular approaches at various levels and in different areas of education. Ever since the beginning of planning, elementary education has been guided by the considerations of the socio-cultural approaches. Further, educational planning in secondary and higher education has been guided mainly by the Manpower approach and partly by the Socio-cultural approaches

throughout the plan period. In technical education, the Manpower approach is preponderant from the very beginning.

Further, considerations of both the socio-cultural approaches and economic approaches have been taken into account in the field of 'social education'. The Social Justice approach has been adopted in case of education of girls, scheduled castes and scheduled tribes. Principles of socio-cultural approaches have been emphasised in physical education. The Cultural approach has been applied in the area of cultural education.

4. Despite the application of these approaches to educational planning, our educational system is facing a lot of problems. When compared with other developed countries, our achievements in educational fields after four decades of independence are not very encouraging both in quantitative and qualitative terms. In fact, our educational system is in a state of crisis and this crisis is a part of overall systemic crisis in our country. Resolution

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of only the systemic crisis would resolve our educational crisis.

All this has been analysed in the next chapter.

CONCLUSION

## Chapter Three

### CONCLUSION

A desire to transform the system has been the most professed goal of educational reconstruction in the post-independence period. The educational system that grew up under the British rule did not accord with national aspirations. The British policy of education aimed at the production of "a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect" (Macaulays' Minute, 1835). Therefore the task of educational reorientation and reorganization was undertaken in a systematic and organised manner with the beginning of national planning in 1951 for an overall development of the country - economic, social political and cultural.

We have made considerable progress in the field of education, especially in quantitative terms. Linear expansion has been made at different levels of education. A common structure of education has

been accepted throughout the country. 10+2+3 system of education has been introduced by most states. A common scheme of studies has been laid down for boys and girls in school curricula. Study of science and mathematics has been incorporated as compulsory subjects. A beginning has also been made in restructuring of courses at under-graduate level. Centres of Advanced Study have been set up for Post-Graduate education and research.

But even after a long period of three-and-a-half decades of educational planning we have not been able to achieve the task of educational reconstruction. National Policy on Education (1986) observes:

While these achievements are impressive by themselves, the general formulations incorporated in the 1968 Policy did not, however, get translated into a detailed strategy of implementation, accompanied by the assignment of specific responsibilities and financial and organisational support. As a result, problems of access, quality, quantity, utility and financial outlay, accumulated over the years, have now assumed such massive proportions that they must be tackled with the utmost urgency.<sup>1</sup>

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1 National Policy on Education-1986 (New Delhi: Department of Education, Ministry of Human Resource Development, Government of India, 1986), p.2.

### Educational Crisis in India

Writers of both the functionalist and Marxist orientations agree that Indian education is in a state of crisis (J.P. Naik, 1975, 17 ; A.R. Kamat, 1973, 299). But their explanation of the crisis and the way of its resolution are different.

Educational crisis in India is both quantitative and qualitative in nature. At the level of elementary education, the constitutional directive of free, compulsory and universal education has not been achieved so far. An acceptably large number of habitations are still without primary schools and nearly one-third of the schools in rural areas have only one teacher. The emphasis so far has been on enrolment of children - approximately 95 per cent children in 6-11 age group and 50 per cent children in 11-14 age group are enrolled in schools, the corresponding figure for girls being 77 per cent and 36 per cent respectively (see appendix V for development of elementary education after Independence). However, nearly 60 per cent children drop out between I-V and 75 per cent between classes I-VIII. In urban areas, there is overcrowding in schools and the condition of buildings, furniture facilities and



equipment is unsatisfactory in almost all parts of the country. There is also the problem of deterioration in standards.<sup>2</sup>

Though, there has been substantial increase in the number of institutions and in enrolment at the secondary stage, the majority of the population in the relevant age group is still uncovered (see appendix-V and Tables 6, 8). There are also unserved areas in the country where there is no secondary school for 10 to 20 kms., like in some tribal areas, desert or hilly areas.<sup>3</sup> The education imparted at this stage is also largely irrelevant to the needs of individuals and national development. There is high rate of unemployment among the products of secondary schools (see appendix-VI). They are also largely unemployable, fit only for clerical jobs.

Our planners have been obsessed with the idea of overcrowding of colleges and universities and deterioration in quality ever since the beginning of planning.

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2 National Policy on Education 1986 - Programme Action, op.cit., p.9.

3 Ibid., p.23.

Therefore, a policy of very limited expansion has been adopted. As a result the percentage of population of the relevant age-group in higher education has not reached even five per cent till date.<sup>4</sup> Further, developments in higher education have been extremely uneven. The facilities provided in universities and colleges vary widely. The courses offered by the universities have not been reorganised to meet the demands of the times. Their relevance and utility are constantly questioned.<sup>5</sup> The rate of unemployment is high and is on the increase among undergraduates, graduates and post-graduates students (see Appendix-VI).

Inspite of significant developments with regard to expansion, enlargement of programme areas and increase in annual intake capacity, in the field of technical education, a lot more have to be accomplished in respect of increasing its coverage and enhancing its accessibility, to various categories of people, and improving its productivity, relevance and objectivity.<sup>6</sup>

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4 K. Chakravarty, "The Compelling Crisis and the New Education Policy" in Social Scientist, 153-54, February-March 1986, p.31.

5 National Policy on Education 1986 - Programme of Action, op.cit., p.38.

6 Ibid., p.51.

Here, we face the problem of 'brain drain'. A large number of products of our centres of excellence, like IITs, IIMS and Medical Colleges go to foreign countries, which results in a big loss of precious human resources. There is also the problem of unemployment among engineers and doctors. Our claim of having the third largest scientific and technical personnel in the world is also a myth when we compare the percentage of students enrolled in relevant age-group in higher education with that of the developed countries. Further, there has been also decline in the rate of enrolment in higher education in the late seventies and eighties.

Further, though there is marginal decline in the percentage, the total number of illiterates has increased over the years. Sixtyfour per cent of our population was illiterate in 1981 and the total number of illiterates has increased from 3,009 lakhs in 1951 to 4,376.3 lakh illiterates in 1981.<sup>7</sup> (see also appendix-VII).

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<sup>7</sup> INDIA 1985 - A Reference Annual (New Delhi: Publications Division, Government of India, 1986), p.66.

Regarding financial allocation, the percentage allocated to education to the total plan expenditure/outlay has declined from 7.8 per cent in the First Plan to 2.6 per cent in the Sixth Plan. In addition the proportion of expenditure on secondary and higher education has increased and it has decreased in case of elementary education over the plan periods (see appendix-VIII). Therefore, the extent of subsidy is much higher at the secondary and higher educational levels than at the elementary level. Further, this subsidy differs not only according to the level of education but also according to the type of education. For instance, it goes up in the institutions of professional education which are more prestigious and which lead to better paid jobs.

Another very important drawback is the dual system of education wherein the educational institutions run by the government, providing free elementary education and using the regional languages as the media of instruction, form the inferior stream, and the fee charging private institutions using English as the medium of instruction and the institutions of professional education (e.g. the IITs, IIMs, medical colleges and institutions of emerging areas of technology) receiving huge state

subsidies, form the superior stream of education. In addition, the Challenge of Education advocates that "there is an obvious case for encouraging innovation and for the establishment of quality institutions through private initiative".<sup>8</sup>

This dual system of education helps in perpetuating and reinforcing social inequality in society at large. The poor and under-privileged people cannot afford to send their children to fee-charging private institutions. In addition, the products of free government schools cannot compete with the products of private institutions because the standard of the latter is far more superior than the former. The majority of the products of government schools are deprived of admissions in good institutions of general and professional education due to their inefficiency in English language. Consequently, they are deprived of the jobs of higher social status and salary.

Most surveys by sociologists have brought out the fact that the majority of students in our country

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<sup>8</sup> Challenge of Education - A Policy Perspective  
(New Delhi, Ministry of Education, Government of India, 1985), p.82.

are from the upper and middle strata of society. Moreover, there is a close correspondence between the social background of the students and the level of education. The inequality in access is related also to the type of institutions. For instance, the lower strata tend to pass through the inferior stream while the better-off sections monopolise the more expensive and prestigious institutions. Furthermore, within these institutions, there is close congruence between the social background and the discipline of one's choice. The students from upper and middle strata tend to dominate those courses which lead to the better paid and the more prestigious jobs. Thus, there is a vicious circle of inequity. According to Naik:

The entire educational system has been oriented ...to meet the requirements of the top one-third of the population (the well-to-do sections, and the upper and middle classes in urban and rural areas) and the interests of the poor (who form the lower two-thirds of the population) have, by and large, been ignored.<sup>8a</sup>

Further, the spread of education among the scheduled castes, and scheduled tribes has been slow

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8a J.P. Naik, "Crisis in Indian Education: A Search for Alternatives" (Mimeographed, 1974), p.6.

compared to rest of the population (see table 10). Moreover, the growth of education has not been uniform among them taken as a whole. Their capacity to utilise the privileges offered by the government has tended to vary from one sub-group to another. Thus, a small sub-elite among the SCs, and STs has been benefitting from the policy of positive discrimination while the large majority of these communities have lagged behind. Studies have also shown that the students from these underprivileged groups tend to attend 'inferior' or less prestigious institutions and that their proportion in some of the less prestigious courses also tends to be higher so that the likelihood of their getting prestigious and better paid jobs remains thin.<sup>9</sup>

There has also been a wide gap in literacy rates between male and female population (see appendix- **and Table-9**) IX and between states/union territories (see appendix-X) over the years. In 1981, the literacy rate of male and female population was 46.74 per cent and 24.88 per

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9 Chitnis, 1975; Neelson, 1972; Rao, 1976; Naik, 1971.

cent respectively. In case of States/UTs, the lowest and highest figures are 20.09 per cent and 69.17 per cent for Arunachal Pradesh and Kerala respectively.

Thus various levels of inequality can be identified within the educational system. It is being stated that the educational systems reflect and, in turn, reinforce the inequalities in the social structure rather than change it, and educational policy and planning designed to encourage social mobility and social change have much less effect than hoped owing to the influence of the family and the socio-economic environment in which pupils spend their childhood.<sup>10</sup> This makes it obvious that the impact of education on social stratification, or on social change by reducing social distance among the strata in our society, has been very limited.

Besides social mobility and social change, another important functions of education, according to the functionalist thinkers

are socialization and role

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10 Myrdal, 1968: 1978; Halsey, Floud and Anderson, 1961, UNESCO, 1964.



allocation. Like social mobility and social change in case of socialization also, Indian education system has not been able to fulfil its expectations. The school system imparts the moral values of justice, liberty, equality, achievement, integrity, truth, secularism, nationalism, social service and consciousness of constructive role in the larger destiny of India. But the students find the society outside school to be guided by entirely different values, e.g. self-interest, injustice, inequality, ascription, devotion and loyalty to primary groups, untruth, dishonesty, maximization of profit, communalism, etc. These 'operational' moral values compel the students to forget 'ideal' values which are imparted in schools. Even among the gifted, with their sharper perceptions, who get the opportunity of studying in institutions of excellence like the IITs and IIMs or the medical colleges at very little cost to themselves, there is no evidence of the expected commitment to social responsibility. The same applies to the products of better quality schools. They develop not only insensitivity to pain and poverty but the result is a kind of snobbishness which distances the products of

these schools from the realities of their environment.<sup>11</sup>  
In allocation of various roles also ascriptive values, such as, birth, social background, community affiliation, etc., play an important role in our economy, polity and education.

In fact the 'role of education' in Indian society can be explained in terms of the Marxist understanding on the subject. Education system in India is inequalitarian which is the reflection of the social inequality prevailing in the wider society. It is aimed at reproducing the required labour power and the ideology of the ruling class for the maintenance and perpetuation of the prevailing mode of production. Schools, colleges and universities impart necessary skills and values which results into the reproduction of working class subservient to the ruling class. Bourgeois values of individualism, achievement, merit, unequal rewards, etc., are ingrained through both the formal and non-formal system of education. Imparting of the constitutional values of justice, liberty, equality and populist slogans of 'garibi hatao' and anti-poverty programmes create false-consciousness among the people that the

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11 Challenge of Education - A Policy Perspective  
op.cit., p.9.

system is working for the good of entire population of the country. The ruling class operates a 'dual system of education' which serves its interests. Task of universal, free and compulsory elementary education has been undertaken due to popular pressure. But the real emphasis has been given on consolidation and quality improvement in the secondary and higher education. The new education policy (1986) follows the same line by giving the slogan of 'operation blackboard', 'navodaya vidyalayas' at the secondary level and for advanced centres of study at the higher level of education. These steps will further perpetuate and reinforce existing inequality and elitism in education.

Thus, the educational system in India did not make a radical departure from the one which the British had implanted here. We still face the problems of irrelevance of the education system, educated unemployment, limited access to the underprivileged or rather selection at all stages, quality improvement, etc. Many of the earlier imbalances continue to characterise the education system of Independent India.

Naik has rightly observed: "In short, while we have talked of revolutionary changes, we have practised only a moderate reformism, thus providing one more illustration of the divorce between theory and practice which characterises our life".<sup>12</sup>

### General Systemic Crisis in India

The functionalists would explain the causes of our educational crisis in a fragmented way. The reasons, according to our planners, educationists, economists, and sociologists of functionalist persuasion are: financial constraints, vested interests of teachers, political parties and educational bureaucracy, lack of entrepreneurship and excessive emphasis on hierarchical status in society, cultural prejudice, legal constraints, technological constraints, poverty of people, traditional nature of society, the tendency to avoid original thinking, the failure of the university departments to rise to the occasion and their unhappy attitude to equate education with the

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12 J.P. Naik, Educational Planning in India, op.cit., p.16.

training of teachers, the non-development of research in different sectors of education, etc.<sup>13</sup> Moreover, Naik identified four major weaknesses in our planning system itself, e.g., expenditure-orientation of our plans, top heaviness, over-dependence on foreign expertise for ideas, programmes and also finance, and neglect of educational transformation.<sup>14</sup>

But we hold that the correct approach is to look upon the educational crisis as a part of the developing socio-economic crisis and try to trace the instability to the basic contradictions in the stagnant socio-economic order and to look for the signs of fundamental change.

There is no doubt about the fact that the real aim of the rulers of India since Independence has been to develop a society based on capitalist foundations whether this path is given the cloak of 'socialist pattern', 'growth with justice', 'garibi hatao' or 'Gandhian development', the essence, the common thread

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13 Challenge of Education (1985, pp.74-84); Naik (1965, p.16).

14 J.P. Naik, Education in the Fourth Plan - Review and Perspective (Nachiketa Pub., Bombay, 1968), pp.18-20.

which binds all this sloganry together is the capitalist axis of the path of development.<sup>15</sup> Ample evidences could be given from our Constitution, from the principles guiding planning and from the operation of economy.<sup>16</sup>

Our educational system reflects the features of prevailing socio-economic structure of our society, such as injustice, inequality and hierarchy. The gap in theory and practice which is apparent in educational field is a part of wider gap between the liberal values and legislations which are verbally supported and the lack of implementation in their full implications in the socio-economic sector.

Moreover the existing mode of production, which is capitalistic and semi-feudal constitutes the fundamental constraint on our educational system. The educational crisis is a part of the general crisis in the existing mode of production. It is beyond the capacity of the existing socio-economic system to resolve our fundamental problems of poverty, unemployment,

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15 A.R. Desai, India's Path of Development - A Marxist Approach (Popular Prakashan, Bombay, 1984), p.29.

16 Ibid., pp.26-29.

economic stagnation, increasing gap between the rich and the poor, social unrest, regionalism, casteism, communalism, etc.

A.R. Desai has summed up the overall impact of developmental policies hitherto pursued by the government of India as follows:<sup>17</sup>

- (1) Gradual enrichment of the capitalist class, comprising industrial, commercial and financial groups; segments of the rural rich, comprising sections of landlords, kulaks and rich peasants; and a section of the urban upper-middle class. Professor B.V. Krishnamurthy described this enriching sector as 'U' sector.
- (2) Increasing control and use for its own benefit by the 'U' sector of economic, political, social and cultural institutions and the social network as a whole.
- (3) The increasing subservience of the 'public sector' its economic, financial, educational and communication agencies; and other elements of the public infrastructural network, including agencies

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17 A.R. Desai, op.cit., pp.21-23.

engaged in maintenance of 'law and order' to the interests of 'U' sector, serving to strengthen its economic, political, social and ideological hold over society.

(4) The number of unemployed and underemployed reaching new and staggering massive dimensions, revealing the inability of developmental measures to yoke the vast human resources available to productive and economically gainful purposes so necessary for a poor country like India.

(5) The continuous aggravation of inequalities of wealth and income distribution. The same is true of social and educational opportunities.

(6) The rate of growth remaining low, non-uniform throughout the period, and from the mid-sixties onwards experiencing sudden jerks, and at times even stagnation and retrogression.

(7) The process of pauperization and proletarianization of the vast majority of the population accelerating.

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(8) The market economy operates as a strangulating net, squeezing and suffocating the vast masses of common humanity, hurling them into a whirlpool of insecurity, uncertainty, corruption and crime, and a ghastly day-to-day struggle for sheer survival.

(9) Government increasingly resorting to public debt, deficit financing and indirect taxation to mobilize resources, and also adopting various devices of resource allocation which, basically, assist the rich with a view to inducing them to produce more (and consume more).

(10) A steady deterioration in the condition of the overwhelming majority of women, scheduled castes and scheduled tribes, as well as growth of regional disparities.

(11) An increasing use of coercion and repression to obtain or subdue discontent, protest movements, the organizations and struggles of exploited non-proprietary classes.

It is admitted that even according to official calculations around 40 per cent of the population comes

below the poverty line, and it may be reasonable to assume that another 20 or even 30 per cent of the population can only be marginally above the poverty line. Especially in view of increasing population, the rate of growth has remained very low in all sectors of our economy (see appendix XI) which rules out any possibility of appreciable rise in the standard of living of the general population. The compound growth rate in agricultural production during the period 1949-50 to 1983-84 was around 2.60 per cent per annum. Despite trebling of production of foodgrains since Independence, the per capita availability of food grains has marginally increased from 430 gram per day in the mid-1950s to 483 grams per day in the year 1983.<sup>18</sup> Further, the production of foodgrains has stagnated around 130-50 million tonnes in the 1980s.<sup>19</sup> The average growth rate of industrial production has also stagnated around 5 per cent. The annual compound growth rate of gross domestic product at factor cost around has stagnated  $\frac{1}{4}$  per cent (see appendix XI). Gross domestic capital formation and gross domestic savings

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18 India, 1985 - A Reference Annual, op.cit., p.279.

19 Economic Survey 1986-87 (Ministry of Finance, Government of India, 1987), p.S-76.

as per cent of gross domestic product has remained stagnant at around 24 and 23 respectively in 1980s.<sup>20</sup>

There are also evidences of increasing concentration of wealth and growth of proletarianization in our society. According to the findings of the NCAER's all-India sample survey conducted in 1975-76, the share of the bottom 70 per cent of the households was only a little over 6 per cent, while that of the top 10 per cent was about 68 per cent and of top 5 per cent 50 per cent of the savings of the household sector. The pattern of growth of the past has generated a tiny island of affluence in the economy of those whose incomes' accumulations and assets have been rapidly increasing. Further, in the two decades between 1961 and 1981 the share of cultivators came down from 52.3 per cent to 41.5 per cent while during the same period the share of agricultural labourers increased from 17.2 per cent to 25.2 per cent of the total labour force. During the two decades the proportion of farmers operating less than two hectare increased from 40 per cent to 55 per cent of the total. The increase in the

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20 Ibid., p.5-76.



proportion (and certainly numbers) of agricultural labourers has gone along with a general increase in wage labourers in the rural economy. Within the class of wage labourers, the proportion reporting casual labour as distinct from regular wage or salaried employment has also risen. The picture that emerges is fairly clear: "as against some 10 per cent of the households (and so of the total population) that has been emerging as the affluent section in the economy, the day-to-day living of at least 50 per cent of the population is very uncertain and insecure".<sup>21</sup>

Further, the long-term Fiscal Policy (1985) has shown that direct taxes that accounted for 27.2 per cent of the total tax revenue of the central government in the early seventies had come down to 22.6 per cent in the early eighties and that the share of income tax during the decade had come down from 14.2 per cent to 9.1 per cent. Moreover, the hollowness of the political trumpeting of the budget as "for poor" is

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21 C.T. Kurien, "1987-88 Budget and New Fiscal Strategy", Economic and Political Weekly (vol. XXII, no. 15, April 11, 1987), pp. 640-41.

brought out by the fact that after the 65% increase in outlay for anti-poverty programmes last year, these programmes, claimed less than 3 per cent of the total expenditure - 3 paise in the rupee directly for the toiling millions. In this year's budget 'for the poor' they have moved up to a little more than 3 paise.<sup>22</sup>

Under the New Economic Policy all we have are certain changes in policy initiated by stages over the last two years in respect to taxation, industrial licensing, imports, technology and foreign equity capital, along with some observations about the need for rationalizing and simplifying the system of fiscal and administrative regulation and modernizing the economy. The New Economic Policy (1985) dismantled the control system, and replaced control mechanism by such as competition, incentive and penalties. The public sector has been brought from "the commanding heights of the economy" to function in the infrastructure. It has diluted the MRTP Act, thus weakening the drive

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22 Ibid., p.643.

against concentration of wealth. In addition, today, there is a mounting pressures on the Government of India from the World Bank to further liberalise Indian industrial policy through dilution of controls on MRTP and FERA companies and to totally dispense with the licensing policy.<sup>23</sup> The Indian Planning Commission also has made somewhat similar recommendations with regard to delicensing, monopoly control and MRTP limits. The new economic policy, for the first time, poses a threat to self-reliance in two ways. One, the indiscriminate use of foreign exchange to support a policy of import liberalisation. Two, a growing dominance of our industries by foreign interests in the name of export promotion, modernization and competition.

Further, the major fiscal measures taken in recent years aim at enabling and encouraging accumulation by the top ten per cent of population who constitute the island of affluence. The 1985-86 budget announced a major package of measures for this purpose.

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23 Anand Vardhan, "Industrial Policy", The Times of India, (June 13, 1987), Saturday Times, p.1.

The exemption limit for income tax was raised; the rates of income tax were substantially reduced, significantly reducing the progressivity of tax; the surcharge on income tax was abolished; the compulsory deposit scheme was withdrawn; the exemption limit for wealth tax was raised; the estate duty was abolished; and the general rate of company taxation was brought down. Apart from these tax reductions there were also many incentive schemes to encourage savings: exemption of upto Rs.40,000 from taxable income if deposited in Public Provident Funds or used for the purchase of National Savings Certificates; increase in the interest rate on these deposits and certificates. It is difficult to recall another instance when so much was done for so few. Rightly a commentator describes it as aiming at "the greatest good of the smallest number".<sup>24</sup> In the 1986-87 budget also the same thrust was followed.

There has been general agreement that a very distinctive feature of these policy changes taken as a whole is the greater scope for unfettered expansion

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24 C.T. Kurien, op.cit., p.644.

they offer to the private sector, particularly in corporate segment of manufacturing industry, and the opportunities opened up in the process to multinational corporations. As a result, the economy and the political machinery would be actually ruled by the industrialists (Indian and foreign) and rich landlords with politicians as their puppets and civil servants as their obliging tools.<sup>25</sup> The considered opinion of the economists is that the new thrust of the new economic policy virtually negates planning and take the country further away from accepted national objectives of growth with equity and self-reliance.<sup>26</sup> K.N. Raj observes: "All these are of course major steps towards making the economy more explicitly capitalist than so far".<sup>27</sup>

Our political system is also in a state of crisis. We adopted a system of bourgeois democracy after Independence. This has its own limitations. The introduction of adult franchise widened the scope for political participation. People could raise their

- 25 B. Dutta, "Political Economy of Social Decadence", Mainstream (XXII(42) June 16, 1984).
- 26 H.C. Srivastava, "State and Path of Development in India", Mainstream (vol.XXV, no.35, May 16, 1987)
- 27 K.N. Raj, New Economic Policy (OUP, Delhi, 1986), p.27. p.30.



demands and agitate for the fulfilment of the same. Accommodative politics of the ruling party could not satisfy regional aspirations. As a result, there has been steady erosion in support to the Congress Party. But even rise of the regional parties would not resolve peoples' problems because they are being controlled by regional elite who work for serving their own interests. The political parties of the right persuasion are becoming more and more authoritarian. There is a lack of intra-party democracy, crisis of leadership and growth of personality cult. Especially the Congress Party has indulged in systematic decimation of the party machine.

Further, the very basis of our democracy is based on corruption. Political parties are financed by the "black money" of the big business houses, especially during elections. In return, they have to protect and promote the interests of the latter. Money and muscle power play important role in deciding election results. Proportion of corrupt people has been increasing in the ruling party.

Struggles of the people for their right have met with repression by the government. Frequent use of black laws like Essential Services Maintenance Act (ESMA), Maintenance of Internal Security Act (MISA), National Security Act (NSA), deployment of army, lathi-charges and police firings have accompanied these struggles. Democratic rights of people have increasingly come under attack and Harijans, Adivasis and women have faced increasing atrocities perpetrated on them.

On the whole, the political machinery is actually being ruled by the industrialists (Indian and foreign) and rich landlords with politicians as their puppets.

Widespread corruption and stifling red-tapism is rampant in our administrative system. The administrators work for serving the interests of the ruling class and in the process serve their own interests as well. They are masters of the masses and not their servants.

Further, social unrest is very acute. It is reflected in the form of class conflict, caste conflict,

regionalism, communalism, etc. The dispossessed masses have been fighting for their rights in many parts of the country. However, the bases of caste, community, region, language, etc., are used by the ruling class to divide the masses and rule them.

Our society is also facing disharmony in the cultural arena. Our constitution talks of justice, liberty, equality, right to work, right to education etc. But in reality, our society is inegalitarian. The problems of increasing (already high) rate of unemployment and under-employment, illiteracy, bonded labour and repression of the poor belie all hopes of realisation of our constitutional values.

Thus there is an overall crisis in our society. Rajni Kothari observes: "There is an institutional crisis already. It is behind the crisis of leadership, poor economic performance and endemic violence and must be resolved urgently."<sup>28</sup>

### Resolving the Crisis

Indian planners, administrators, political

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28 Rajni Kothari, "For a Government from Below", The Hindustan Times, May 24, 1987, p.9.

leaders and social scientists, by and large, emphasised the need of educational reorientation and restructuring especially after Independence. At the elementary level, emphasis was given to expansion and "basic education" in the beginning of the planning. But, in practice, emphasis remained on 3R's and idea of 'basic education' was dropped after the third plan. Now 'Operation Blackboard' has come into picture which means that schools which do not have any facilities - physical facilities in terms of, say, classrooms, blackboards, science kits, etc., should be provided with them. There are two major thrust areas in the National Policy on Education (1986): (i) universal elementary enrolment (by 1995) and universal retention, and (ii) quality improvement.

At the secondary level, the emphasis ever since planning has been on consolidation and quality improvement. Basic education constituted the main plank of quality improvement. But it was dropped after three five year plans. Thence the talk of vocationalisation has been in the air. But at present only 3 per cent of the students in the country

opt for vocational course.<sup>29</sup> Now the Seventh Plan has made provisions for the establishment of 'navodaya vidyalayas', one each in every district in the country, which aims at quality improvement and social justice.

In higher education also consolidation and quality improvement have been given priorities from the beginning of the planning. Planners have been harping on the idea of rural universities. But no significant development has taken place in this regard. In practice, emphasis has been laid on developing centres of excellence such as, IITs, IIMs, and now on Centres of Advanced Study, emerging and frontier areas of science and technology, Open University and distance learning.

Our plans provided for introduction of science education at all levels of education, social education with special emphasis on adult literacy, non-formal education with special emphasis now on distance educa-

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29 P.L. Malhotra, in The Times of India, A Special Feature, June 25, 1987, p.1.

tion and maximum use of mass media. Moreover, planners and educationists have been talking of introducing work experience, social service and moral education at all levels of education.

Other much discussed measures for educational reconstruction are: dedicated leadership of teachers and educational administrators,<sup>30</sup> decentralization of educational planning,<sup>31</sup> delinking of jobs from degrees,<sup>32</sup> depolitization of education,<sup>33</sup> neighbourhood school, increased financial allocation for education<sup>34</sup> and also adoption of the Gandhian scheme of basic education at all levels in education.<sup>35</sup>

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- 30 J.P. Naik, Education in the Fourth Plan, 1968, p.114.
- 31 J.P. Naik, Policy and Performance in Indian Education, 1947-74 (Orient Longman), pp.67-77.
- 32 National Policy on Education, 1986, Programme of Action, op.cit., pp.77-78.
- 33 Challenge of Education 1985, op.cit., pp.115-16.
- 34 Report of the Education Commission 1964-66, op.cit., pp.458-59.
- 35 H.N. Pandit, "Educational Development in India: Trends and Search for Alternative Strategy" in A.B. Shah (ed.), The Social Context of Education (New Delhi, Allied Pub., 1978), pp.151-52; and D.A. Dabholkar, "The Indian Educational Systems: The Crucial Decade" in A.B. Shah (ed.), op.cit., pp.125-31.

But our contention is that even if these measures are adopted, in addition to the steps already taken during the various five year plans, the educational crisis would continue as a part of the general crisis of the socio-economic-political situation. It is illogical and unfeasible to establish a socialist system of education in a country like India which is basically capitalist in its structure and spirit. In fact, the logic of the situation is such that it can be safely predicted that on the whole, the development in education will continue along the same path which it has taken since the last four decades. The priority will generally be given on promoting islands of excellence in education at all states with some socialist pronouncements, such as, universalization of elementary education and equalisation of educational opportunities. It has to be like that at a stage when capitalist thrust is increasing in a bourgeois democracy like ours. There will be no doubt attempts to tackle piecemeal one or the other of the more glaring inequities or inefficiencies in the educational system; but no radical transformations will be undertaken under the existing regime. Wide gap between professed populist phraseology and actual implementation will remain in education as in the

other areas of social life, e.g., economy, politics, etc.

Indeed, the educational stalemate (crisis) in which India is trapped cannot be separated from a similar situation in every other sphere of life in our society, such as, economic stalemate, political turbulence, social regression and crisis of values. The basic problem does not lie with the approaches to educational planning, whether they be traditional socio-cultural approaches or modern economic approaches. The existing socio-economic structure of our society constitutes the fundamental barrier in educational transformation. It is not possible first to effect revolution in education, as the Education Commission 1964-66 observes, which would set in motion revolution in other spheres of social life, e.g., economy, polity, etc. But the process will have to be vice versa. In a country like ours, which has a large population of socially and economically deprived people and when a process of awakening is gradually taking place amongst them, there is no possibility of muddling through with what is essentially an underdeveloped capitalist economy and a stagnant social structure for a long



period in future. Hence, the only alternative is to make a complete break from the capitalist path of development and effect a socialist transformation in our socio-economic and political structure. In the process, education system also will undergo a similar change. It will no more remain a tool in the hands of the ruling class and will serve the interests of society as a whole. The "social demand" of education will be fully met and required manpower produced for the rapid socio-economic development of the country. The education system will not work for perpetuation and reinforcement of social inequalities, as it is doing today in India, but will be effectively used to reinforce the movement of society towards achieving collective gains in order to make the life of all people richer and happier.

Thus, only a socialist transformation could resolve the capitalist crisis, including educational crisis, in India and establish a social system based on the principles of justice, liberty, equality and fraternity as envisaged in our Constitution.

**APPENDICES**

**Appendix-I: Requirements for Government and Government-sponsored Activities (1947-52)**

Sl. No.	Category	Senior Grade Requirement
1.	Chemists & Chemical Technologists	3,884
2.	Physicists	2,791
3.	Geologists and Geophysicists	1,120
4.	Mathematicians and Statisticians	1,560
5.	Botanists	0,897
6.	Zoologists	1,425
7.	Biologists	0,663

Source: Report of the Scientific Man-Power Committee, 1948, Chapter II, Table IV, p.29.

**Appendix-II: Manpower Requirements: University Education  
Commission, 1948-49**

Category	Number required	
	Senior Grade	Junior Grade
Engineers of all categories	25,250	28,700
Architects	310	---
Metallurgists	1,090	150
Glass and Ceramics Technologists	320	340
Fuel&Furnace Technologists	310	---
Textile Technologists	780	950
Leather Technologists	350	450
Chemists and Chemical Technologists	6,560	3,990
Physicists	3,300	220
Mathematicians and Statisticians	1,560	60
Botanists	900	---
Zoologists	1,430	---
Biologists	680	---
Geologists and Geophysicists	1,420	---
Agricultural Scientists	2,640	610
Dairy Technologists	700	---
Doctors	19,740	---
Non-Medical Personnel (Nurses)	32,510	---
<b>Science Teachers:</b>		
Graduates in Science	16,220	---
Intermediates in Science	1,82,300	---
Intermediates in Science as Technical Personnel	500	---
Unclassified Scientific & Technical Personnel	3,820	---
Intermediates in Science as Technical Personnel	500	---

Source: The Report of the University Education Commission, 1948-49, vol.I (Ministry of Education, Government of India, 1962), p.234.

Appendix-IIIa: Estimates of Required Workers, Stock and Out-turn of Matriculates and above: India (1960-61 to 1985-86)

	Thousands			Annual Growth Rate		
	1961	1976	1986	1961-76	1976-86	1961-86
<b>Matriculates and above</b>						
Workers	5,164	16,612	32,554	8.1	7.0	7.7
Total stock	8,227	27,339	56,223	8.3	7.5	8.0
Out-turn of matriculates	0,623 (6.8)	02,324 (16.4)	04,779 (27.4)	9.2	7.5	8.5
<b>Intermediate and above</b>						
Workers	1,901	5,739	11,275	7.6	7.0	7.4
Total stock	2,755	8,515	17,464	7.8	7.6	7.6
Out-turn of Intermediates	0,240 (2.8)	0,749 (5.6)	01,537 (9.1)	7.9	7.5	7.7
<b>Graduates and above</b>						
Workers	1,146	3,299	06,543	7.4	7.1	7.2
Total stock	1,510	4,433	09,082	7.5	7.4	7.5
Out-turn of Graduates	0,123 (1.5)	0,377 (3.2)	00,772 (4.9)	7.7	7.5	7.6

N.B. Figures in parentheses indicate percentages of the population in the corresponding age-groups.

Source: Reproduced from ISI/LSE Paper in Report of the Education Commission, 1964-66 (NCERT, New Delhi, 1971), Table 5.3, p.174.

Appendix-IIIb: Enrolments Proposed (1960-61 to 1985-86) (in Thousands)

	1960-61		1975-76		1985-86	
	Enrol- ments	Passes	Enrol- ments	Passes	Enrol- ments	Passes
<b>Matriculation level</b>						
General: Classes VIII/IX, IX/X, X/XI...	3,582	585	12,324	2,324	23,630	4,779
Vocational (School)*+	119	48	361	135	738	278
Total Matriculates	3,701	633	12,685	2,459	24,368	5,057
<b>Intermediate level</b>						
General: Years I and II degree course⊙	597	208	--	--	--	--
College (professional)	80	35	--	--	--	--
Total College	677	243	2,176	749	4,460	1,537
School (vocational)						
Engineering Diploma	46	10	297	67	573	139
Others	181	42	701	151	1,438	310
Teacher Training* ** (All non-graduate)	123	75	453	211	402	169
Total School*	350	127	1,451	429	2,413	618
Total Intermediate	1,072	370	3,627	1,178	6,873	2,155
<b>Undergraduate level</b>						
First degree: Years I, II, III & IV	822	96	--	--	--	--
Professional++	174	30	--	--	--	--
Total	996	126	3,038	377	6,216	772
Total (Enrolments in years III, IV only) ⊙⊙	320	126	972	377	2,985	772

Notes: \* Not represented in the manpower data. + Including some teacher training, 1960-61 only

++ First degree only (excluding degree in teaching and law).

\*\* Excluding courses at matriculate level in 1960-61

⊙ Enrolment in Classes XI and/or XII and intermediate and equivalent classes

⊙⊙ In 1985-86 the enrolment figure is based upon 3-year course and thus represents enrolments in years III, IV and V.

Source: Reproduced from ISI/LSE Paper in Report of the Education Commission, 1964-66 (NCERT, New Delhi, 1971), Table 5.4, p.175.

Appendix-IIIc: Estimated Total Future Employment in India (1961-1986)

Sl. No.	Industry	All workers 1960-61	Workers of age 15 & above		
			1960-61	1975-76	1985-86
0	1	2	3	4	5
1	Agriculture	135,444	123,817	144,462	144,462
2	Mining and Manufacturing	20,927	19,202	40,696	63,861
3	Construction	2,059	1,992	6,653	9,273
4	Trade and Commerce	7,654	7,500	12,135	18,764
5	Transport and communications	3,019	2,995	6,882	11,525
6	Services (Other)	19,572	18,697	32,906	45,210
	<b>Total</b>	<b>188,675</b>	<b>174,203</b>	<b>243,734</b>	<b>293,095</b>

Source: Reproduced from ISI/LSE Paper, Table No.13 in Report of the Education Commission 1964-66 (NCERT, New Delhi, 1971), Table 5.6(A), p.183.

Appendix-IVa: Admission and Out-turn of Medical Graduates,  
1961-73 (numbers)

Year	Colleges	Annual Admissions	Annual Out-turn
1961	66	7,008	4,068
1962	71	7,348	3,992
1963	79	9,667	4,179
1964	81	10,227	4,415
1965	87	10,520	5,135
1966	89	11,079	6,159
1967	91	11,106	7,407
1968	93	11,500*	9,980*
1973	103	13,000*	10,300*

\*Provisional Estimates.

Source: Fourth Five Year Plan (Planning Commission, Government of India, New Delhi, 1969), Chapter 16, Table-6, p.367.



**Appendix-IVb: Stock of Para-medical Personnel, 1965-66 to  
1973-74 (numbers)**

Sl. No.	Category	1965-66	1968-69 (anticipated)	1973-74 (Targets)
1	Nurses	45,000	61,000	88,000
2	Auxiliary nurse- midwives	22,000	34,000	54,000
3	Health/Sanitary inspectors	18,000	20,000	32,000
4	Pharmacists	48,000	51,000	66,000
5	Radiographers	700	1,300	11,300
6	Laboratory technicians	2,000	3,200	8,600

Source: Fourth Five Year Plan (Planning Commission, Government of India, New Delhi, 1969), Chapter-16, Table-7, p.368.

Appendix-IVc: Training Facilities for Agriculture and Veterinary Graduates, 1960-61 to 1967-68

(numbers)

Year	Colleges	Annual Admission	Annual Out-turn
<b>Agricultural Graduates</b>			
1960-61	51	5,634	2,090
1965-66	70	10,049	5,259
1966-67	70	8,983	4,734
1967-68	71	8,400*	5,900*
<b>Veterinary Graduates</b>			
1960-61	17	1,301	831
1965-66	20	1,599	1,070
1966-67	20	1,425	1,086
1967-68	20	1,251*	1,000*

\*Provisional

Source: Fourth Five Year Plan (Planning Commission, Government of India, New Delhi, 1969), Chapter 16, Table 8, p.368.

Appendix-IVd: Expansion of Engineering Education (1950-51 to 1968-69) (Numbers)

Year	Degree Level				Diploma Level			
	No. of insti- tutions	Sanc- tioned intake	Actual intake	Out- turn	No. of insti- tutions	Sanc- tioned intake	Actual intake	Out-turn
1	2	3	4	5	6	7	8	9
1950-51	049	04,120*	--	02,200	086	05,900*	--	02,480
1955-56	065	05,890*	--	04,020	114	10,480*	--	04,500
1960-61	102	13,854	13,692	05,703	195	25,801	23,736	07,969
1961-62	111	15,850	15,497	07,026	209	27,701	26,525	10,349
1962-63	114	17,074	17,669	08,426	231	30,826	29,924	12,026
1963-64	118	21,040	20,744	09,120	248	39,712	37,922	12,938
1964-65	131	23,757	22,214	09,456	264	46,243	41,645	15,202
1965-66	133	24,695	23,315	10,282	274	48,048	43,984	17,699
1966-67	137	25,000	24,934	13,051	284	48,579	46,461	22,260
1967-68	138	25,000	24,237	13,873	284	48,580	42,935	22,476
1968-69	138	25,000*	17,890	14,593**	284	48,600*	27,255	23,224**

\*Provisional estimates; \*\*Admission capacity

(i)

Source: /Third Five Year Plan (Planning Commission, Government of India, New Delhi, 1961) p.608. For the year 1950-51 and 1955-56. (ii) Fourth Five Year Plan, 1969, Chapter 16, Table 9, p.369.

Appendix-V: Educational Development From 1950-51 to 1984-85

Sl. No.	Item	Year				
		1950-51 (Actual)	1960-61 (Actual)	1970-71 (Actual)	1980-81 (Actual)	1984-85 (Likely)
1	2	3	4	5	6	7
<b>A. INSTITUTIONS (Number)</b>						
i.	Primary	209,671	330,399	408,378	485,538	550,000*
ii.	Middle	013,596	049,663	090,621	116,447	140,000*
iii.	High/Higher Secondary	007,288	017,252	036,738	051,594	060,000*
iv.	College					
	(a) Art, Science & Commerce	000,548	001,161	002,587	003,393	003,500*
	(b) Professional	000,147	000,381	001,017	001,382	001,500*
	(c) Universities & Deemed Universities	000,028	000,044	000,093	000,123	000,135
<b>B. ENROLMENT BY STAGES (in '000)</b>						
i.	Primary (I-V Classes)	019,155 (42.6)	034,994 (62.4)	057,045 (76.4)	072,688 (83.1)	085,377 (91.84)
ii.	Middle (VI-VIII Classes)	003,120 (12.7)	006,705 (22.5)	013,315 (34.2)	019,846 (40.0)	026,729 (53.07)
iii.	High/Higher Secondary/ Intermediate	001,481	003,483	007,167	011,281	016,800*
iv.	University and Above (1st degree)	000,174	000,557	001,956	002,752	003,442*
<b>C. EXPENDITURE (Rs. in crores)</b>						
	Total	000,114	000,344	001,118	003,746	006,000
	Plan	000,020	000,090	000,115	000,520	000,800
	Non-Plan	000,094	000,254	001,003	003,226	005,200

\*Estimates. Note: Figures in Parentheses indicate Gross Enrolment Ratio, as percentage of the total population in each category.

Source: Seventh Five Year Plan (Planning Commission, GOI, 1985) Annexure 10.1, p.265.

Appendix-VI: Number of Job-Seekers Registered with Employment Exchanges (1961-1984)  
(in lakhs)

December end	Number of Exchanges	Educated				Total	Unskilled manual labourers and others	Total
		Matri- culates	Hr. Sec.	Graduates and Post- Graduates	Graduates			
1	2	3	4	5	6	7	8	
1961	325	04.63 (78.5)	00.71 (12.0)	00.56 (09.5)	05.90 (100.0)	12.43	18.33	
1971	437	12.97 (56.5)	06.05 (26.3)	03.94 (17.1)	22.96 (100.0)	28.04	51.00	
1981	581	50.08 (55.5)	23.25 (25.8)	16.85 (18.7)	90.18 (100.0)	75.66	165.84	
1982	597	55.60	24.40	17.69	97.69	88.77	186.46	
1983	638	63.74	28.14	19.68	111.56	107.98	219.54	
1984	666	71.26 (57.8)	30.82 (25.0)	21.23 (17.2)	123.31 (100.0)	112.16	235.47	
Annual Rate of increase (%) between 1961 & 1981	3.2	12.6	17.8	17.1	14.1	10.0	11.7	

Note: Figures in brackets represent percentages of total educated unemployed

Source: Compiled from CMIE, Basic Statistics Relating to the Indian Economy, August 1985 by R. Datt & K.P.M. Sundaram, Indian Economy (S. Chand & Co., New Delhi, 1987), p.300.

Appendix-VIIa: Proportion of Illiterates in the Population  
(India)

1971			1981		
Total	Male	Female	Total	Male	Female
66.6%	53.2%	81.1%	63.8%	53.3%	75.1%

Source: R. Cowen & M. Mclean (eds.), International Handbook of Education Systems (John Wiley & Sons, Chichester, 1984), p.157.

Appendix-VIIb: Progress of Literary in India

Year	No. of Literates	% rate of literacy	No. of illiterates (millions)	% rate of illiteracy
1951	60	16.6	301	83.4
1961	105	23.9	334	76.1
1971	161	29.3	387	70.7
1981*	238	34.8	401	65.2

\*Provisional (excludes Assam and Jammu & Kashmir)

Source: J.P.C. Tilak, "Planning Education for Economic Development", Table-1 in Perspectives in Education, vol.1, no.1, 35-47, p.39 (1985).

Appendix-VIII: Sector-wise Outlay/Expenditure in the Five Year Plans - Education & total Plan

Sl. No.	First Plan 51-56	Second Plan 56-61	Third Plan 61-66	Plan inter- egnum	Fourth Plan 69-74	Fifth Plan 74-79	Sixth Plan 80-85	Seventh Plan 85-90	
(Rupees in Crores)									
1	Elementary Edn.	085 (56)	095 (35)	201 (34)	075 (23)	239 (30)	410 (32)	905 (36)	
2	Secondary Edn.	020 (13)	051 (19)	103 (18)	052 (16)	140 (18)	250 (19)	420 (17)	
3	University Edn.	014 (09)	048 (18)	087 (15)	077 (24)	195 (25)	292 (23)	486 (19)	
4	Adult Edn.	005 (05)	004 (01)	002 (Neg)	003 (01)	004.1 (1)	018 (01.4)	128 (05)	
5	Other Programme	009 (06)	023 (08)	064 (11)	030 (10)	089.5 (11)	122 (09.5)	223 (09)	
6	Total General Edn.	133 (87)	221 (81)	457 (78)	237 (74)	668 (85)	1,092 (85)	2,162 (86)	
7	Art & Culture	--	003 (01)	007 (01)	004 (01)	012 (02)	037 (02.9)	084 (03)	
8	Technical Edn.	020 (13)	049 (18)	125 (21)	081 (25)	106 (13)	156 (12.1)	278 (11)	
9	Total Edn.	153 (100)	273 (100)	589 (100)	322 (100)	706 (100)	1,205 (100)	2,524 (100)	6,000 (100)
10	Total Plan	1,946	4,680	8,752	--	15,724	39,322	97,500	180,000
11	Edn. as % of Total Plan	7.6	5.8	6.8	--	5.0	3.2	2.6	3.3

Note: Figure within parenthesis indicate percentage. Source: Different Plan documents (Draft)  
 Compiled by: Sailabala Debi, "Educational Planning: Some Suggestions", New Quest (Jan-Feb 1986)  
 no.55, p.27.



Appendix-IX: Literacy Rate (per cent): Rural/Urban, Male/Female, 1951-1971

Year	Persons			Males			Females		
	T	R	U	T	R	U	T	R	U
1951	16.7	—	--	24.9	---	---	07.9	--	--
1961	24.0	19.0	47.0	34.4	29.1	57.5	13.0	08.5	34.5
1971	29.5	23.7	52.5	39.5	33.8	61.3	18.7	13.2	42.1

T = Total

R = Rural

U = Urban

Source: C.L. Sapro (ed.), Demographic and Educational Statistics in India  
Table-7, p.8. (New Delhi: NIEPA, 1980).

Appendix-X: Literacy in India: 1981 (State/Union Territories arranged in the order of literacy ranking in 1981 Census and comparison with 1971 Census)

Rank- ing in 1981	State/ Union Territories	Lite- racy rate 1981(%)	Lite- racy rate of 1971(%)	Rank- ing in 1971	% increase of literacy
1	Kerala	69.17	60.42	2	+14.48
2	Chandigarh	64.68	61.56	1	+05.07
3	Delhi	61.06	55.61	3	+09.80
4	Mizoram	59.50	53.79	4	+10.90
5	Goa, Daman & Diu	55.86	44.75	6	+24.83
6	Lakshadweep	54.72	43.66	7	+25.33
7	Pondicherry	54.23	46.02	5	+17.84
8	Andaman & Nicobar Isls	51.27	43.59	8	+17.62
9	Maharashtra	47.37	39.18	10	+20.90
10	Tamil Nadu	45.78	39.46	9	+16.02
11	Gujarat	43.75	35.79	11	+22.24
12	Manipur	41.99	32.91	14	+27.59
13	Nagaland	41.99	27.40	19	+53.25
14	Himachal Pradesh	41.94	31.96	15	+31.23
15	Tripura	41.58	30.98	17	+34.22
16	West Bengal	40.88	33.20	13	+23.13
17	Punjab	40.74	33.67	12	+21.00
18	Karnataka	38.41	31.52	16	+21.86
19	Haryana	35.84	26.89	20	+33.28
20	Orissa	34.12	26.18	21	+30.33
21	Sikkim	33.83	17.74	27	+90.70
22	Meghalaya	33.22	29.49	18	+12.65
23	Andhra Pradesh	29.94	24.57	22	+21.86
24	Madhya Pradesh	27.82	22.14	23	+25.65
25	Uttar Pradesh	27.38	21.70	24	+26.18
26	Dadra & Nagar Haveli	26.60	14.97	28	+77.69
27	Bihar	26.01	19.94	25	+30.44
28	Rajasthan	24.05	19.07	26	+26.11
29	Arunachal Pradesh	20.09	11.29	29	+77.95

Source: Provisional Population Totals - Paper I of 1981 Census.

Appendix XI: Sectoral Growth Rates, 1976-77 to 1985-86

Sector	Annual growth rate (compound)	Relative Share of Sector	
		1976-77	1985-86
1. Agriculture, forestry and logging, fishing, mining and quarrying	2.5	43.2	36.9
2. Manufacturing, construction, electricity, gas and water supply	4.0	22.2	21.9
3. Transport, communication and trade	5.2	18.1	19.9
4. Banking and insurance, real estate and ownership of dwellings and business services	5.2	6.5	7.2
5. Public administration and defence and other services	7.2	10.0	14.0
6. Gross domestic product at factor cost	4.0	100.0	100.0

Source: Calculated from Table 1.2, Statistical Appendix "Economic Survey, 1986-87", by C.T. Kurien, "1987-88 Budget and New Fiscal Strategy", Economic and Political Weekly, vol.XXII, no.15, April 11, 1987, Table-I, p.640.

Note: Actual figures for the period are in 1970-71 prices and hence the growth rates are in real terms.

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