REGIONAL DISPARITY IN ELEMENTARY EDUCATION IN RURAL INDIA: A STATE LEVEL ANALYSIS

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I, Paulomi Gupta, certify that the dissertation entitled **"Regional Disparity in Elementary Education in Rural India: A State Level Analysis"** for the degree of **Master of Philosophy** is my bonafide work and may be placed before the examiners for evaluation.

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In Memory of My Grandmother

Late Smt. Amita Gupta

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Chapter-I

Introduction

1.1. The Issues

Eradication of illiteracy and spread of educational facilities have figured prominently in the political rhetoric of India since the time of independence. In the constitution of India, a directive given under Article 45 states that the provision of free and compulsory education to all children up to age of fourteen years should be achieved within a decade i.e. by 1960. This target date since then has been revised more than once. The latest revision has been done under National Policy on Education (NPE) in 1992, which proposed to provide education to children up to 14 years of age before 2000, but even today India is lagging way behind this target.

Any prospect of dramatic turnaround is also very bleak. The most important deterrent for this is the pressing need for fiscal correction by the Government. The current public spending on all formal education is around 3% of the GDP and estimated requirement for providing universal education is 6% of the GDP, suggested by Kothari Commission (1966). The gap between them has to be bridged, which is not possible within a few years.

NPE (1992) has identified three important thrust areas to universalise elementary education,

1. In the first phase, universal provision of school facilities has to be fulfilled by opening primary and upper primary schools within easy access from home for every child.

2. The second area of emphasis is on the universal enrolment and retention. The ideal situation in this field will take place when every child of school going age is enrolled in school and leaves school after completing education till

class eight, within a stipulated period of time. This phenomenon rarely occurs in Indian school system. The term 'wastage' is frequently used in this context, which covers both the concepts of 'dropout' and 'repetition'. 'Dropout' refers to premature to withdrawal from the education system; 'repetition' refers to continuance of pupil in the same grade for more than a year, due to unsatisfactory academic performance.

3. The third thrust area is the quality of schooling and its improvement in order to make the school environment more attractive to the children as well as to assist them to achieve desired level of cognitive development.

These three thrust areas demand suitable planning and simultaneous and prompt actions; other wise the goal of Universal Elementary Education (UEE) will remain elusive.

Even after more than fifty years of independence from colonial rule, regional disparities persist in the provision of educational facilities in India. These disparities, to some extent can be attributed to colonial legacy. During the period of colonial rule enclavisation and concentration of educational infrastructures coincided with urban agglomerations. As a result of these rural-urban differentials were the major manifestations of regional inequalities. There had been large scale expansion of access to schooling but the quality of inputs and management of rural schools had been much below the desired level. The growth of rural education should not be merely seen in the context of providing access but also in ensuring that, those enrolled are able to complete the required cycle of education without frequent repetition.

Exiting literature on participation in education clearly brings out the fact that provision of good quality education facility in not sufficient to ensure participation since it is culturally defined. This statement gives way to the discourse pertaining to

gender related inequities and ethnicity related inequities. (Aggarwal and Sibou, 2000,pp.3-9). The denial of educational opportunities to women in a patriarchal society led had led to gender inequity in participation in education. In a multi ethnic society like India, ethnic minorities like tribes and other minorities like schedule castes and certain religious communities also differ in school performance from the majority. So, the gender biases against women and scheduled caste as well as tribal groups remain a major determinant of participation in education system. Besides these economic status of the individual, vocation etc. are have bearing on school performance. So, in nutshell, it can be stated that in order to achieve the desired goal of UEE, it is necessary to provide quality based education, within easy access from home, for every child below fourteen years of age. But that will not automatically lead to the achievement of UEE, as participation and retention in education system is determined by various socio-psycho-economic factor, relationship among them is very intricate, and varies from one micro-region to the other.

1.2. Objectives

The main objective of this study is to show the variation in participation in basic education in rural areas. In order to address this broad objective the peripheral questions that has to be answered are,

- Pattern of financing of elementary education since mid-1980s
- Quality of schooling available in different states.
- Physical access to elementary schools in the states.
- Spatial variation in enrolment and retention across states.
- Influence of gender and ethnicity related inequalities in overall access and retention in basic education
- Suggestion of suitable for policy measures for future development

1.3. Database

Data for the aforesaid analysis is collected from,

1. Sixth All India Education Survey (1997) NCERT and NIC.
2. Fifth All India Education Survey (1986) NCERT and NIC.
3. Fourth All India Education Survey (1986) NCERT and NIC.
4. NSSO, 52nd Round, 'Attending Education Institution in India: Level, Nature and Cost'.
5. Analysis of Budgeted Expenditure on Education, MHRD (Various Years)

1.4. Methodology

The present empirical study is based on data analysis with the help of various statistical methods and cartographic techniques. Various ratios like Age-Specific Enrolment Ratio, Gross and Net Enrolment Ratio, Retention Ratio, Sopher's Index (modified by Kundu) for the measurement of gender inequality, and Index of Social Equity (Aggarwal, 1997) have been used (see Appendix-I for details). Coefficient of variation has been calculated across states to depict the level of regional disparity. A correlation matrix showing interrelationship between various indicators of access and retention to education, with school quality, and other extraneous variables like social and economic status has been calculated. A regression analysis has also been undertaken. A linear regression model has been formulated, taking data across the states for three time points where the years have been considered as dummy variables (see Appendix-I).

1.5. Literature Reviews

Existing literature on elementary education elucidates on various issues related to education policy in India and variability of its impacts across states as well as different social groups. Neither it is logical nor practicable to categorize this bulk of literature under different subheads. In more than a few cases, the themes discussed in these works are overlapping. These studies deal with the basic aspects of elementary education or education policy as a whole. They present the stylized facts related to elementary education in rural India that condition the empirical analysis in the following chapters. On the other hand, there are studies which have more specific field of analysis. These studies have been systematically divided under different subheads, depending upon their themes of discussions.

1.5.1. General Theoretical Constructs Regarding Education in India

Large bodies of literature have been produced till date, inviting attention to country's dismal records in the field of elementary education. These studies have not attempted to focus on any particular set or subset issues. Rather aimed to provide a holistic view of the issues related to elementary education.

Godbole (2001)[1] discussed the issues against the background of the proposal to make elementary education a fundamental right. In this study he emphasises the need for development of education facilities for all children below fourteen years of age, as it is crucial for cognitive development of children in later phases of life. He raised a word of caution that enforcement of the legislations made under the ambit of this right should not be misused to persecute poor parents for their incapacity to send their children to school. Rather stringent provisions should be made by the law that states are not able to compromise on quality of education.

S.P. Agarwal and Meena Usmani (2000)[2] in their book, ventured to provide excerpts of plans and important Government documents pertaining to elementary education. This compilation is very useful for the researchers in the field of education.

Mehrotra (1998)[3] examines the policy issues among the high achievers in elementary education, which can be replicated in the context of the developing countries. Policies that can be adopted by the developing countries as remedial interventions are, increasing the amount of resources allocated for expenditure on teaching-learning materials, reducing 'out-of-pocket' expenditure of the parents to send children to school, provision of instruction in mother tongue in the initial years and employment of more female teachers to encourage girls' enrolment.

Manoharan and Jaganathan (1997)[4] examine the issue of high level of drop-out and repetition rates in schools. An estimate of magnitude of wastage in elementary level shows that it has declined in recent years. However, it is higher among SC/ST communities. Decline is more significant among the boys than among the girls. However, in the SC/ST communities girls have made spectacular progress.

Gazdar (1996)[5] finds that 'social failures' in U.P. are responsible for the continuance of all pervasive educational deprivation in the state. Decay of public schooling system, suppression of women's agencies, fragile basis of local democracy and rampant corruption have frustrated all efforts of alleviation education scenario in U.P. He concludes by saying that U.P. is more than a match for all the other BIMARU states and these evils are also plaguing the social sector in these states.

Ramachandaran (1996)[6] describes active role played by civil society institutions , especially women's agencies, along with the historical processes are responsible for Kerala's trail blazing success in the field of education among Indian states. While contextual factors can not be replicated in other states, policies can be. So, Kerala can be a model for other Indian states.

Sen and Dreze (1995)[7] propound underutilization of funds and infrastructure already available, are accountable for dismal performance of education sector in most states. Infusion of political commitment is necessary to bring any significant transformation in the prevailing situation. PROBE Report (1995)[8] is a study of primary education scenario in BIMARU states. As the work is largely based on primary survey of the PROBE team, it can be said that is relatively free from upward biases in the statistics which is endemic to data sets published by Government

agencies. The study is enlightening in the sense that it helps to dissipate some of the long held wrongful popular beliefs. One of them is the belief that the prevalence of child labour hinders universalisation of elementary education. But in reality a large number of children not going to school are not engaged in gainful economic pursuits either. Moreover, children in rural areas are mostly engaged in agriculture or allied activities as part time labourers which does not stop them from going to school. Another wrongly held notion is that parental apathy towards education stop children from joining formal education. But the report reveals views quite contrary to that. Most parents in rural areas are interested in giving education a try but absence of quality schooling etc. discourage them to do so. The report also counters the view that as elementary education is 'free' in India, 'out-of- pocket' expenditure to send a child to school is nil. In reality parents have to make lump sum expenditure once a year to keep their children in school which sometimes poses considerable liquidity constraint in poorer households. PROBE findings envisage poor school quality, unattractive school environment along with gender and ethnicity related inequities, along with lack of political will are responsible for India's lacklustre performance in primary education.

Study by A. Sen (1967)[9] suggests that academic calendars in rural areas should be adjusted to accommodate more pupil, as many of them are forced to work in the fields in agricultural peak season. He empirically establishes the fact the social factors, external to education show more significant statistical correlation with access and retention than the internal factors. This phenomenon makes the issue of ameliorating educational scenario more cumbersome, as it becomes difficult to bring about any significant improvement without altering the larger socio-economic milieu.

1.5.2 Financing Elementary Education in India.

In recent years various studies have been conducted to shed light on issues associated with financing education in India. An article authored by J.B.G. Tilak (2002)[10] presents an extensive account of lopsided nature of education in India across time and space. The views that this article attempts to substantiate are that though total expenditure on elementary education has increased since independence in leaps

and bounds, it is far from adequate to universalise education. Increase in per pupil expenditure is meagre, as the total expenditure is incommensurate with population growth at the same time. Intrasectoral allocation of resources is biased towards recurring expenditures in the revenue account of the budget. Lack of capital account expenditure required for development in new direction and for building up physical and pedagogic infrastructure etc. can be sighted as the main reasons for unsatisfactory performance of elementary education in India. This work has focused primarily on scenario at the national level. Regional disparity in resource allocation played a second fiddle in the entire analysis.

Work done by Betancourt and Gleason (2000)[11] impinges on the issue of political will and motives that guide the allocation of resources in social sector in India. This article empirically establishes the widely believed notion that a higher proportion of Muslims or scheduled castes in the rural area of a district leads to lower allocation of inputs in the social sector. Ramachandaran, Rawal and Swaminathan (1997)[12] delve into the issue of inter state disparity in allocation of funds in education. They expound the view the expenditure reduction in education as part of stabilisation package is inevitable. Empirical analysis reveals the fact that among 17 major Indian states only Kerala devotes the required proportion of its SDP to universalise elementary education. Educationally backward states like Bihar and U.P. need considerable amount of resources to achieve universal elementary education.

Mun C. Tsang (1996)[13] presents an account of the decentralized financing structure of basic education in China. In India, the most popularly prescribed panacea for resource crunch in education sector is to diversify the resource base through people's participation. Chinese experience in this path serves as an important lesson. It shows that the decentralized system fosters glaring regional imbalance due to the fact that the impoverished provinces have less capacity to raise fund for education. As a result of that their efforts to expand basic education facilities suffer. Nevertheless, devolution of power of decision making to the local bodies relating to basic education can be a useful strategy in Indian context also.

K.C. Nautial (1995)[14] considers per pupil expenditure made by Government as the most reflecting indicator for state's effort to provide good quality education. He has put forward the view that rise in public expenditure on primary education and research will make the planners more efficient to cater to the area and group specific needs. Nevertheless, he has strongly rejected the view that decentralization of education finance will bring about significant changes. This view is one sided as there are ample evidences to support the alternative view.

J.B.G. Tilak (1995)[15] highlights the need to enhance investment in non-recurring and non-salary items like text books and other teaching-learning materials. Empirical analysis reveals that growth rate of per student expenditure in elementary education was the lowest in 1980s and in early 1990s it was negative in real terms. One more exciting finding that the study makes is that, through in recent years foreign aid has played a significant role in funding basic education projects, its contributions will remain peripheral. He opined that it is too much to expect that foreign funds can solve the financial constraint in education in India, as it could not do in any other developing country.

Philip A. Trostel (1996)[16] presents normative justifications for subsidising education in the developing countries. Some of the findings proposed in this article are debatable. The study provides no justification to subsidize education as a public provision. The author only argues that lowering private cost of education is efficient as it offsets the distortion effects of taxation. Furthermore, the welfare effects are shown to be quite large. In Indian context, it is true that lowering of private of human capital inputs will actually lead to welfare of the mass. The issue of subsidization of education in India is hotly debated in the era of globalisation.

Sri Prakash and Sumitra Choudhury (1994)[17] attempt to trace the growth path of public expenditure on education. According to the present work the amount of expenditure on education follows a cyclical phase marked by initial acceleration, reaching a crescendo and consequent tapering off of the flow of public funds in education (chapter-1). They have substantiated their views with a cross-country analysis (chapter-V).

So, the discussion clearly brings out the fact that education is generally treated as a social service designed to promote welfare than growth. So, it is regarded as a soft target for resource squeeze in any kind of economic exigency.

1.5.3. Gender Disparity in Participation in Education

One of the most staggering inequalities that are visible in education in India is the unequal participation of girl children as compared to boys in schools.

The study by McDougall (2000)[18] impinges on the issue of gender disparity in literacy in Uttar Pradesh. The analysis of data goes to suggest that increased attention to female education is an effective means of improving educational equality as a whole. Low female attainment in U.P. can be attributed prevalence of disharmonious caste and class based societal structure. So, any attempt to usher any change hinges upon the balance of power in the society. Access to education of girls in U.P. is influenced more by political commitment. So, effective changes can be ushered by the devolution of decision making power to the local level rather than by provision of better physical inputs.

Vimala Ramachandran (2000)[19] reiterates the some view. She has also opined that over all low status of women in the society inhibit their scope for participation in formal education. In case of poorer sections of the society, social isolation of women is even more severe. Lack of access to information and mobility alienates them from decision making process within the family and society. Active participation of women in the process of decision making can ensure their better attainment in formal schooling system.

Nambissan (1995)[20] held the view that gender roles, acquired largely through interaction within the family and larger society, guide the educational aspirations of the individuals. Different academic environment provided to boys and girls in the family shapes their prospects of educational achievement. Caste and community membership also influences the nature of gender socialization and ultimately the female attainment in the schools. Gender stereotypes persist even in the classrooms.

Lack of incentives offered to the girl students to perform makes the schooling less attractive to them.

Guha (1991)[21] divided the factors determining participation of girls in schools into demand side factors and supply side factors. Demand side factors are mostly associated with socio-cultural and economic issues. The supply side factors are related to availability of education facilities within close physical proximity. Though the supply side factors also important it is the demand side factors which play more decisive role in explaining low educational achievement of women. Chanana (1990)[22] subscribes to the view expressed by the others that participation of women in education is culturally defined and is guided by gender stereotypes. Regressive gender ideologies lead the societal perceptions regarding the futility of women's education. As traditional values still persist in modern India, even today parents conceive that the goal of providing basic education to women is to enable them to perform their traditional duties in a better manner. Women's abilities to work even beyond the domestic chores are still undervalued. As the economic incentives to provide education to women is very less, a large section of parents are actually not receptive to the idea of sending their girl children to schools.

R.P. Singh and Shashi Prabha (1991)[23] express the view that educational attainment of parents has positive correlation with the educational attainment of their girl children. Educational attainment plays of positive role in economic empowerment of women.

So, the inferences that can be derived from the ongoing discussion is that regressive gender ideologies rooted in the societal structure proves to be inimical to the development of women's education in India. As a result of this women are trapped in a vicious, self –perpetuating cycle, which reinforces the stereotype that education is irrelevant to women.

1.5.4. Elementary Education for Minorities

In the present section the term minorities refer to the scheduled castes and tribes. In the Constitution of India elaborate provisions have been made to secure participation of the SCs and STs in the formal education system. These laudable the

rhetorics, however, have never been implemented fully, mainly due to lack of political commitment. J. Mohanty (2002)[24] has dealt with the issue of elementary education of women and minorities (chapter –46). In this essay he has presented a detailed account of the constitutional provisions made for the education of the underprivileged segments of the society.

Yash Aggarwal and Srika Sibou(1998) [25] attempt to explore the nature and the magnitude of discrimination against SCs in the field of education at the district level and across various caste groups. The confirms that discrimination against SCs still persists, especially in rural areas. It subscribes to the view that participation of SCs in modern vocations, especially in the non-agricultural pursuits and resulting improvement in the economic condition is conducive to the amelioration of the situation.

N. Mishra (2001)[26] presents an empirical analysis based on All India Education Survey data for various years. This analysis goes to suggest that habitations dominantly populated by SCs have been discriminated against in terms of provision of elementary schools. This problem is even more prominent in case middle schools. In terms of enrolment in schools SCs are at par with the general population. But the problem of high wastage and dropout among SCs could not be tackled in an effective manner.

Muralidharan (1997)[27] emphasises the fact that issues impinging on drop-out of children are related to three institutional units: family, school and the community. Hostile behaviour of the teachers towards the students belonging to SC community as well as to their parents in the caste ridden rural India, has made these families less receptive to formal basic schooling. Inferior positions offered to them in the village community aggravate the problem of social distancing between schedule caste families and schools as they are compelled to live isolated within caste boundaries. Economic backwardness has various manifestations in this context. Low economic status of these households leads to the parents' incapacity to bear the cost of sending the children to school. Moreover, in these households, children are deprived of mental stimulation, which in turn cripple their academic abilities and interests.

Kamal K. Sridhar (1996)[28] discussed the problem of multilingualism and education of minorities in India. The official policy of the government of India as well as the states, concur with the principle of using mother tongue as medium of instruction in the initial stages. Minorities in India, especially the tribes, live in small enclaves and have distinct language and culture. So, at times it is difficult to find teachers for small number of children belonging to the minority communities. Moreover, there is dearth of study material based on these languages. But it is important to provide education to the children in these languages to assert their linguistic identity and to bring them to the social mainstream. In official policy also it has been made imperative to use even the 'uncultivated' tribal languages till the primary grade. Though implementation of this loudly professed principle is far from satisfactory.

Majumder (1996)[29] in her paper seeks to address issue then of alienation of disadvantaged children from the education system. In this work disadvantaged groups include women, minorities as well as economically marginalized sections of the society. The facts that have been emphasised are that even within the physical boundaries of the states the divide between the 'forward' and' backward' communities are enormous. This study nullified the view that lack of demand for education among the disadvantaged groups is accountable for their plight. Conducive circumstances are necessary ensure that deprived parents actually make use of their 'freedom to choose.' Another subtle form of exclusion has been highlighted in the present study is that school system in India is also segmented as their clientele. Good schools are filled up by social elites leaving only the bad schools for the disadvantaged classes.

Chalam (1978)[30] has highlighted that the lower castes have been deprived of education facilities historically due to separation of work from education. Caste structure is more divisive than class hierarchy based economic status. So, social mobility of person is stringently restricted in caste structure. This leads to alienation of his/her rights to education.

Literature focusing on problem of educating tribal population propounds the view that remoteness of tribal areas, scarcity of teachers and text books to teach in their mother tongue etc. are the main reasons for poor participation of tribal children in education (National Seminar on Tribal Education, 1967)[31]. So, the corollary that can be drawn is that even after the expiry of more than half a century of independence, ethnicity related inequities in education persists which are inimical to the achievement of universal elementary education.

1.5.5 Quality of Education Facilities in Rural India.

Conditions of learning and quality of education have to be viewed in conjunction within the complex context encompassing aspects within and outside education system. Some of the conditions are concrete and tangible like physical inputs available for schooling etc. On the other hand, there are aspects, which are not easily observable and quantifiable. These are commitment of the teachers, nature and efficiency of administration etc. A joint study conducted by the Ministry of Human Resource Development (MHRD) and UNESCO (2001)[32] sights various reasons for the disinterest of women teachers to in the rural schools especially in the remote areas.It suggests that the absence of efficient transport facilities, as well as the poor physical infrastucture like lack of sanitation facilities etc. deter them to work in rural schools. This phenomenon cripples the chances of increment in the participation of girls in formal education. Yadav and Bhardwaj (2000)[33] show that commendable progress has been made in provision of better physical infrastructure in rural primary schools. Learning conditions in these schools still remain less than desirable. It is due to the fact that pupil teacher ratio is very high in most of the educationally backward states. Teachers are also not motivated and competent enough to carryout effective teaching-learning process in the classroom.

The study done by Llyod (2000)[34] is based in Kenya but the analysis is relevant in Indian context also. He emphasized on the gender dimensions school quality especially in rural areas. Girls' retention in schools is discouraged as the teachers in mixed schools provide boys with more attention. Varghese (1995)[35]

reveals that school quality has positive influence on learners' achievement in elementary schools. Empirical analysis reveals the fact that school quality is better in private than government schools. Since private schools are more of an urban phenomenon, conditions of a large number of rural schools are deplorable.

J.S. Rajput (1994)[36] emphasises the role of teachers training in elementary education. A teacher should be responsive to the needs of the community. Teacher training methods should be equipped to cater to these specific requirements of the community. It is important for a teacher to pocess a scientific outlook and rational approach as large sections of rural population suffer from obscurantism and superstitions. He suggests that in order to improve school quality it is mandatory to specify teachers' accountabilities in clear terms and teacher evaluation procedures should be incorporated in the system as remedial inputs to improve school quality. Seetharaman and Usha Devi (1985)[37] sights building conditions as well as curricular and co-curricular activities as significant determinant of participation in education.

In a country like India, where enrolment and retention in elementary education is no where near universal school quality acts as a two-pronged factor. Poor quality of schooling cripples the cognitive development of the children who are attending school, and hasten their process of premature withdrawal from schools. At the same time it discourages others to join schools.

1.5.6. Physical Access to Elementary Education

Accessibility of rural pupil is restricted severely due to low level of transport supply and relative isolation of rural hamlets in India. These distance related obstacles are somewhat disregarded in the Indian context. Vaconcellos (1997)[38] suggests that developing countries should attempt to ensure the right to be transported to school as a part of right to basic education. In order to guarantee this right fund should be allocated to operate a stable and flexible system of transport. Transport planning has to be decentralized and community participation should be ensured. Raza and Ahmed (1984)[39] conducted a study exploring these issues. The study

highlights the problem of hilly and forested regions, mostly inhabited by tribal population pertaining to lack of physical access to schools.

1.5.7. Child Labour and Participation in Basic Education

In the existing literature, engagement of children in economic pursuits is sighted as one of barriers to educate children in India. However, the issue is debatable and conflicting. Weiner (1997)[40] is of opinion that ascendancy of the issue of compulsory elementary education in the political agenda has been restricted due to the belief child labour is a necessary evil which is to stay in India. As a result of that laws that have been passed so far focus more on regulation and not on prohibition. It is well accepted that poor families need children's contribution to sustain themselves. The author is of the view that child labour has kept girls out of school. Employers are more eager to employ girls as they are paid less than the boys. One major lacuna in these findings is that empirical evidences do not substantiate them. Kusum K, Premi (1987)[41] provides evidences to nullify the popular notion poverty of parents and resulting economic activity of children are the major cause for their non-attendance and drop-out from school attendance of children. So, by and large it can be held that though the prevalence of child labour proves to be inimical to the spread of formal education, the challenge can be negotiated with careful planning initiatives.

1.6 Conclusion

Given the present contextual framework, this study attempts to discuss various issues associated with elementary education in rural India. Rather than focussing on any particular issue, the present venture undertakes a generalised discussion related to elementary education. Exploring various facets of regional disparity in school enrolment and retention is the main focus of this study. Provision of educational infrastructures as well as social readiness to make use of the existing utilities is widely disparate across space. In order to make the policy interventions more incisive, it is mandatory to have an insight into the regional aspects. As policies are formulated at the national level also, the importance of a state level analysis can not

be undermined. Even in the twenty-first century masses in rural India are still immersed in the darkness of ignorance and illiteracy. This study is a humble attempt to provide an insight into the regional disparities in elementary education in rural areas and furnish some important policy suggestion which can be instrumental in rooting out this malady.

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Chapter-II

Regional Disparity in Financing Elementary Education in Rural India: A State Level Analysis

2.1. Introduction

It is firmly held by policy makers in India that substantial amount of investments are needed to send every child to school. The constitutional directive of universlisation of elementary education can only be achieved through the spread of formal schooling infrastructure throughout the length and breadth of the country. Nonformal schooling is important for achievement of mass literacy but in order to spread basic education among children, it is required universalise formal schooling.

Another important prerequisite for the achievement of universal elementary education is making the school education free and compulsory for every child. The rationale for providing free basic education is that it is regarded by many as pure public good. The benefits of this are not confined to the individuals who are being educated but considerable benefit accrues to the society as a whole due to its externality effects. So, in order to make free public access to basic education a reality, it is important that it should be financed by the government.

2.2. Indian Scenario

The post second world war period had witnessed the development of the concept of human capital formation, which had emphasised the role of education in economic development. In India also, both policy makers and theorists have acclaimed the pivotal role of education in economic development. Recognition of the public good nature of basic education had led to the emergence of a situation where state financing of elementary education had become imperative.

India, like many other developing countries, had experienced rapid expansion of education expenditure in the halcyon years of 1950s and 1960s. It was a challenge to the planners and policy makers to invest these resources effectively across each level of education in order to ensure the largest possible return from it. The flow of resources to education started somewhat dwindling in 1970s. It was mainly due to presence of large educated unemployment, the tie between education and economic development was also questioned. But the situation changed in 1980s, as education

was attributed to be the most important tool for Human Resources Development (Tilak 2000, p.6).

The decade of 1990s again experienced a backlash with the advent of stabilization and structural reform programmes. It had its impact on public finance structure in the form of displacement of funds from social sector, including education, as a part of orthodox stabilisation package for the solution of economic crisis (Ramachandran, Rawal et.al 1997,p.40). Education sector was badly hit as it was regarded as soft target for resources squeeze (Prakash and Choudhary, 1994).

Table No.1.1

Growth Rate of Public Expenditure on Education in India

Years	Total (%)	Per Capita (%)	Per Pupil (%)
1950s	10.4	8.2	2.7
1960s	5	2.6	4.2
1970s	3.9	1.7	11.6
1980s	7.7	5.6	3.5
1990-97	4.7	2.5	2.4
1950-51 to 1997-98	5.8	3.5	2.2

Source: Tilak (2000), p.5.

Since independence the increase in investment in education in absolute terms seems to be spectacular at the national level. It was Rs. 1.1 billion in 1950-51 which reached Rs. 412 billion (Budget Estimate) in 1997-98. It showed almost 360 times increase in absolute terms at current prices. This spectacular picture looks grim if we take into account the investment figures at constant prices. The growth rate of total expenditure on education between 1950-51 and 1997-98 was 13.5% at current prices but it was only 5.8% at constant prices for the same period. The real rate of growth of per capita expenditure on education was only 3.5% and for per pupil expenditure was 2.2% for the above mentioned period of time. The growth rate of per capita expenditure on pupil reached an all time low of 2.4% during 1990s. So, it is evident from this analysis that, increase in investment in education is eaten away by,

(i) Price escalation and inflation.

(ii) Rapid increase in population as well as number of pupils.

As a result of these, through the investment made in education was huge, the results achieved were not so impressive.

The most widely used indicator of national effort in education is supposed to be the share of education in GNP. The recommendation made by Education Commission (1966) and the Government of India (1968) suggested fixing a target of investing six percent of GNP in education as a whole. This goal was reiterated by National Policy on Education 1986. But this goal still remains elusive as only 3.6% of GNP was invested in education. Nevertheless it is an improvement over 1.2% GNP invested in education in 1950-51. The data clearly shows an increase in national effort to universalize education, but it seems that with emphasis on globalization of the economy, the share of GNP in education had steadily declined from 4.9% in 1990-91 to 3.6% in 1997-98 (B.E.), though the decadal average had remained at 4.1%.

An insight into the intrasectoral allocation of resources in education clearly reveals that during the plan period, lot of emphasis has been given to elementary education. The first five year plan earmarked 56% of educational outlay for elementary education. But it started gradually declining from the second plan onwards. This trend can be attributed to the shift of developmental priorities from agriculture to industrial development, which needed trained manpower. So, the resources were directed to technical and higher education. The shares of elementary education in plan outlay reached an all time low of 17% in 1967-68. after the formulation of NPE in 1968, the trend reversed and gradual recovery from the earlier phase started taking place. The formulation of NPE in 1986 marked the beginning of renewed emphasis on elementary education as a result of which considerable amount was allocated for the development of elementary education in Seventh and Eighth Plan.

The share of plan expenditure as a whole is not significant, as currently it comprises only 22.3% of total expenditure made in education in 1997-98, though the plan component had experienced a steady increment since independence.

The share of elementary education in GNP had grown considerably from 0.50% in 1950-51 to 1.47% in 1997-98(B.E.). The growth was 13.32% at constant prices. But in recent years i.e., after 1989-90 it had declined substantially, attaining an all time low of 1.34% in 1994-95. This trend can be ascribed to resource squeeze

in social sector as whole in order to address the issue of globalization of the economy.

Further break up of expenditure showed that considerable proportion of total non-plan expenditure allocated for recurring expenditures like teachers' salary (93.6% in 1983-84). As high as 98.0 % of the resource is invested to meet the recurring expenditures and only 2.0% is available for non-recurring expenditures like expansion of infrastructure, e.g., building, libraries etc. This phenomenon poses a bottleneck in form of resource crunch in expansion of and effective functioning of education infrastructure in rural areas.

Another most disturbing trend in elementary education is that the resource available per student is not sufficient. Since independence the growth of expenditure available per pupil was 2.1% at the primary and less than once percent in upper primary level.

So, the above discussion brings out the fact that if the recent trend of financing continues the universalization of elementary education (UEE) will remain elusive even in future. Against this backdrop, an attempt has been made to analysis the regional dimensions of financing elementary education in India at the state level.

2.3 Regional Disparities In Public Expenditure On Elementary Education

Universalisation of elementary education has been one of the most laudable and ubiquitously professed goals in political rhetoric in India since independence. But in the economic front indifference of the policy makers have been proved inimical to the spread of elementary education in India, as resources allocated for this purpose is grossly inadequate. Dismal performance in the field of basic education is largely due to insufficient budgetary and extra budgetary allocation in this sector. Glaring disparity in resource mobilization capacity of the different states for education makes the scene even more worrisome. The gross amount available for basic education as well as the financing structure varies widely across states. Persistence of sporadic and piecemeal approach of resources mobilization and allocation has actually thwarted the spread of quality elementary education and has widened regional inequalities across states.

Prevalent adhocism in resource allocation in the field of education has led to absence of any consistent trend across time and space. To analyse the pattern of resources mobilisation for elementary education, data for three different points of

time had been used. The year 1986-87 had been selected to reveal the the picture during the time of adoption of National Policy on Education (NPE) in 1986. The year 1992-93 is significant as the effects of liberalisation started being felt since that point of time. 1997-98 is the most recent year for which data regarding all the indicators are available. By that time the process of liberalisation and reform process of the Indian economy had gathered full steam and in order to streamline the economy, social sector including education was adversely affected in the procedure.

2.3.1. Analysis of Budgeted Expenditure on Education across States

Efforts exerted by a nation or the states for the development of education can be measured with the aid of a few selected indicators. Most important among them is the share of education and training in the Net State Domestic Product (NSDP).

Data for the year 1986-87 (see Table No.2.2) revealed that among the educationally developed states, H.P. (7.2%) and Kerala (6.7%) had channelised significant proportion of the state income for the development of education. Most of the economically developed states, like Maharastra (3.5%), Haryana (3.3%), Punjab (3.3%), had very low proportion of state income devoted for education. The states, which were regarded as laggards in the field of education e.g. Bihar (4.2%), U.P.(4.6%), Orissa (4.7%), Andhra Pradesh (4.7%), had also made insignificant financial commitments in terms of total state income. A comparative analysis of data for 1992-93 and 1997-98 (see Table No.2.2) showed that, in 1992-93 educationally developed states like H.P. (8.0%), Goa (6.8%) had high percentage of NSDP devoted to education. It was 7.7% in 1992-93 for Kerala, which diminished to 4.36% in 1997-98. Other educationally developed states like Maharashtra (3.3%) and Tamil Nadu (4.7%) had low percentage of NSDP dedicated to educational development. In 1997-98 Assam showed very high level of state income (9.09%) diverted to education. Among educationally underdeveloped states, Bihar had a moderately high and increasing share of educational expenditure in state income. It was meager 4.2% in 1986-87, increased to 5.2% in 1992-93, and then to 6.85% in 1997-98. Among the other educationally under developed states, West Bengal, U.P. and Andhra Pradesh remained at the lowest echelon.

In order to get an insight into the matter of education finance across states, these figures should not be accepted at their face value. For example some of the states like Bihar and Orissa, who had moderately high values for the aforesaid

indicator had very low state income. At times the state income had shown a declining trend, so even a small and inadequate expenditure on education can have a greater percentage share in NSDP. In the same way, educationally developed states like Maharasthra, Tamil Nadu and Punjab had allocated relatively lesser share of NSDP on education, did not suggest that education in these states were inadequately funded. The denominator or the state income was high as they were high achievers in the economic front also. States like H.P. and Goa, which had healthier education scenario, actually diverted considerable amount of resources to this sector in spite of the fact that they did not have a vibrant economy.

It is an established fact the share of extra budgetary resources in total allocation in education is very low. So, a better measure of states' effort to support education is its share in total budgetary expenditure of the states. At the national level the values remained almost stable since mid-1980s. It was 13.2% in 1992-93 and 14.06% in 1997-98 (see Table No.2.2). All the northeastern states along with Sikkim, West Bengal and Andhra Pradesh had abysmally low share of budgetary expenditure spent on education. The case of North Eastern States deserve some different treatment as the needs to UEE in this part of the country are largely met by the private players like missionaries. So, prevalence of Governmental apathy does not lead to dismal performance in education in these states.

Among the educationally developed states, Kerala had very high value for this indicator. In 1992-93, 30.1% for Kerala's total budgetary expenditure was channelised for development of education, which dropped to 25.5% in 1997-98. As an educationally underdeveloped state, Bihar had shown significant increase in share of education in budgetary expenditure. It leaped from 23.2% in 1992-93 to 27.28% in 1997-98. On the other hand, educationally advanced states like Goa (16.99%), H.P. (18.7%) in 1997-98, did not have very high share of budgetary allocation in education. Nevertheless, they had high share of NSDP in education. This discordance between the two indicators for some states actually revealed the fact that the states that had low/ moderate income, had very high percentage of NSDP allocated for education was actually spurious, as even small expenditure made in reality had high percentage value as the denominator was very small.

Table No.2.2

Expenditure on Education in Relation with the state Income and State Budget

	1986-87		1992-93		1998-99	
States/Uts	% of NSDP	% of Total Budget	% of NSDP	% of Total Budget	% of NSDP	% of Total Budget
A.P.	4.7	24.2	4.4	24.3	2.93	18.04
Arunachal Pradesh	4.7		7.9	14.9	9.17	16.18
Assam	4.7	23.1	6.1	29.1	9.09	33.4
Bihar	4.7	27.9	5.2	23.2	6.85	27.28
Goa	4.7		6.8	22.2	5.32	16.99
Gujarat	4.7	28.3	4	20.7	4.04	23.86
Haryana	4.7	22.3	3.1	15.7	4.04	20.42
H.P.	4.7	18.2	8	20.8	7.18	18.07
J&K	4.7	19.4	5	13.9	5.86	14.33
Karnataka	4.7	22	4.5	22.7	3.49	20.9
Kerala	4.7	31.7	7.7	30.1	4.36	25.2
M.P.	4.7	21	4.6	23.7	4.2	23.29
Maharastra	4.7	22.4	3.3	23.2	2.82	24.23
Manipur	4.7	25.8	14.1	28.3	9.47	28.79
Meghalaya	7	15.3	8.9	19.4	7.4	20.62
Mizoram			13.6	17.7	11.56	17.85
Nagaland	8.3	12.3	8.9	12.4	7.4	14.77
Orissa	4.7	22.2	5.7	23.6	5.85	24.68
Punjab	3.3	23.9	3.1	18.8	3.58	18.84
Rajasthan	4.9	26.4	5.7	22.9	5.25	25.75
Sikkim	13.6		13.6	19.7	10.93	5.13
Tamilnadu	4.6	25.8	4.7	24.9	4.07	24.9
Tripura	6.9	19.2	12.5	23.4	9.39	23.69
U.P.	3.3	21.8	4.2	21.3	4	22.22
West Bengal	3.5	25.8	3.5	25.8	4.55	27.72
A&N Island		12.3	12.1	13.2		
Chandigarh						
Dadra & N. Haveli			6.8			
Daman & Diu	4.9	20.6				
Delhi	3.6	34.4	3	30.6	2.87	31.89
Lakshadweep						
Pondichery	5.5	21.4	6.8	19.8		
India		24	4.2	13.2	3.94	14.06
C.V.	38.48	22.88	50.12	22.50	43.60	27.50

Source: Analysis of budgeted expenditure on Education (various years).

The broad conclusions that can be drawn from the aforesaid discussion are that there is no strong correlation between the economic health of the states and its

efforts to support education. This view has been supported by Tilak (2000, p.9). Not necessarily the economically stronger states will divert more resources for development of education. Need for resources in the education sector also vary across state. The BIMARU states and Orissa need more resources for upliftment of the masses as for wide spread ignorance and illiteracy are deeply entrenched into the societal structure. On the other hand the states like Kerala, Goa and to same extent northeastern states traditionally have greater awareness for the value of education and a more vibrant non-government sector to mobilise resources. So even amidst governmental apathy they sail through the resource crunch periods. The states like Punjab, Maharastra and Tamil Nadu etc. which are economically developed, allocated lesser amount of resources to education in percentile terms, but in real terms it is not very less. Moreover, they already have better education infrastructure and maintenance and further expansion calls for relatively less amount of finance as compared to those states which have low level of infrastructure development and social readiness to accept the tenets of the resolve of 'education for all'.

2.3.2 Intra-Sectoral Allocation of Resources and Emphasis Given On Elementary Education.

Emphasis placed on the development of elementary education can be delineated through the analysis of percentage of expenditure on elementary education to total expenditure on education, in the revenue account of the budget. Capital account expenditures have not been taken into account as its share is meager in the total budget.

Percentage share of elementary education in total revenue expenditure on education has remained stable for all India level since mid-1980s, after the adoption of NPE in 1986. It was 46.6% in 1986-87, 45.23% in 1997-98. At the state level the trend is erratic. Educationally developed states like Kerala had reflected a downward trend, as it was 53.2% in 1986-87 (see Table No.2.3), 47.44% in 1992-93 (see Table No.2.4) and reached the lowest level of 46.86% in 1997-98 (see Table No.2.5). In case of Tamil Nadu the value increased between 1986-87 and 1992-93 but sank between 1992-93 and 1997-98. The rise in the first time period was in order to conform to the propositions made in NPE for UEE but this lopsided

Table No.2.3
Budgeted Expenditure on Elementary Education
(1986-87)

States/Uts	% Plan Expenditure	%Non-plan Expenditure	As % of Total Expenditure on Education
A.P.	10.82	89.18	40.8
Arunachal Prd.	26.32	73.68	43.8
Assam	21.21	78.79	41.6
Bihar	8.51	91.49	61
Gujarat	78.10	21.90	59.1
Haryana	13.30	86.70	40.4
Hp	2.79	97.21	36.8
J&K	10.99	89.01	43.1
Karnataka	3.98	96.02	55.2
Kerala	4.40	95.60	53.2
Mp	4.68	95.32	45.1
Maharastra	2.13	97.87	44.2
Manipur	7.62	92.38	51
Meghalaya	5.12	94.88	39.9
Mizoram	4.13	95.87	61
Nagaland	12.55	87.45	40.7
Orissa	7.75	92.25	32.8
Punjab	2.49	97.51	52.1
Rajasthan	8.98	91.02	26.2
Sikkim	37.59	62.41	51.2
Tamilnadu	21.28	78.72	37.8
Tripura	27.70	72.30	49.9
Up	7.95	92.05	34
Wb	18.13	81.87	59.8
A&N Island	8.14	91.86	20
Chandigarh	8.06	91.94	63
Dadra & N. Haveli	12.24	87.76	21.2
Delhi	47.23	52.77	48.3
Lakshadeep	2.56	97.44	36.35
Pondichery	1.23	98.77	46.8
India	**10.35**	**89.65**	**46.6**

Data Source: Analysis of Budgeted Expenditure on Education (1988-89)

Table No.2.4

Budgeted Expenditure on Elementary Education (1992-93)

States/Uts	% Plan Expenditure	%Non-plan Expenditure	As % of Total Expenditure on Education
A.P.	1.42	98.58	44.70
Arunachal Prd.	40.82	59.18	62.28
Assam	76.89	23.11	59.39
Bihar	5.72	94.28	64.01
Goa	14.89	85.11	28.11
Gujarat	2.57	97.43	51.16
Haryana	12.55	87.45	45.16
Hp	20.67	79.33	54.77
J&K	13.16	86.84	44.71
Karnataka	13.35	86.65	49.63
Kerala	0.39	99.61	47.44
Mp	10.12	89.88	59.60
Maharastra	4.91	95.09	44.01
Manipur	14.60	85.40	42.95
Meghalaya	27.54	72.46	57.77
Mizoram	15.70	84.30	57.49
Nagaland	7.59	92.41	61.33
Orissa	7.37	92.63	58.06
Punjab	1.93	98.07	32.37
Rajasthan	9.77	90.23	51.43
Sikkim	4.97	95.03	58.02
Tamilnadu	4.19	95.81	47.55
Tripura	16.27	83.73	40.70
Up	4.85	95.15	43.92
Wb	2.80	97.20	36.32
A&N Island	10.81	89.19	56.42
Chandigarh	5.20	94.80	19.98
Dadra &Nagar Haveli	10.34	89.66	69.02
Daman &Diu	3.33	96.67	44.41
Delhi	41.20	58.80	24.05
Lakshadeep	2.35	97.65	50.14
Pondichery	10.12	89.88	40.79
India	**11.25**	**88.75**	**45.23**

Data Source: Analysis of Budgeted Expenditure on Education (1994-95)

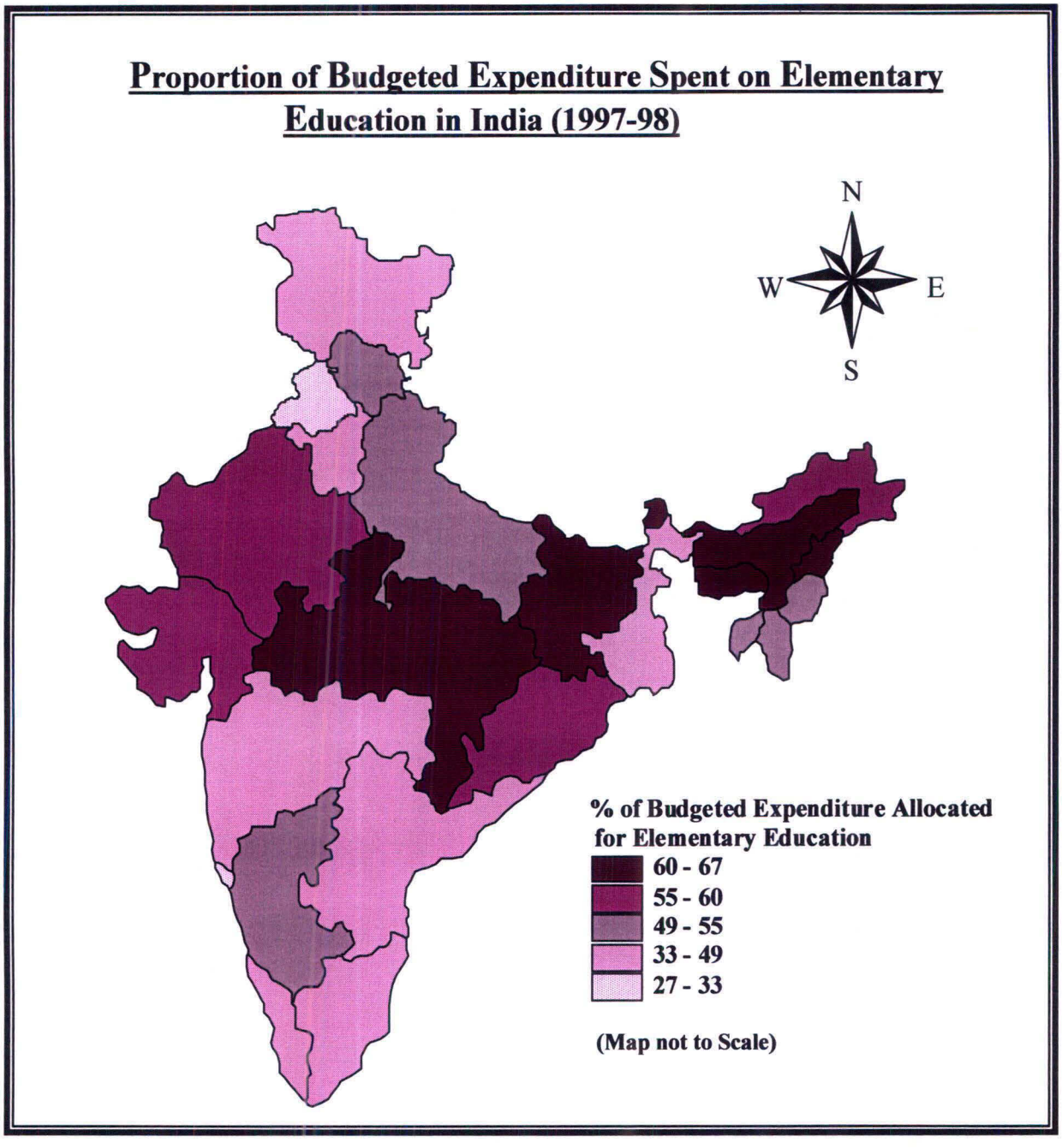
Table No.2.5

Budgeted Expenditure on Elementary Education
(1997-98)

States/Uts	% Plan Expenditure	%Non-plan Expenditure	As % of Total Expenditure on Education
A.P.	8.97	91.03	43.56
Arunachal Prd.	49.91	50.09	59.00
Assam	29.83	70.17	59.89
Bihar	0.92	99.08	65.53
Goa	3.43	96.57	27.30
Gujarat	8.45	91.55	56.45
Haryana	8.53	91.47	45.26
H.P.	33.75	66.25	54.10
J&K	1.74	98.26	48.10
Karnataka	15.77	84.23	52.12
Kerala	8.39	91.61	46.84
M.P.	13.21	86.79	63.59
Maharastra	31.51	68.49	46.22
Manipur	10.67	89.33	52.05
Meghalaya	28.39	71.61	67.46
Mizoram	17.70	82.30	53.21
Nagaland	7.47	92.53	64.59
Orissa	14.05	85.95	57.10
Punjab	0.39	99.61	28.77
Rajasthan	11.34	88.66	55.03
Sikkim	34.81	65.19	60.28
Tamilnadu	5.98	94.02	47.62
Tripura	32.01	67.99	49.10
U.P.	16.65	83.35	54.43
West Bengal	5.18	94.82	33.21
A&N Island	21.02	78.98	53.37
Chandigarh	13.63	86.37	18.32
Dadra &Nagar Haveli	23.06	76.94	65.89
Daman &Diu	3.44	96.56	42.39
Delhi	88.02	11.98	17.52
Lakshadeep	13.24	86.76	49.13
Pondichery	13.15	86.85	40.70
India	**20.07**	**79.93**	**48.37**

Data Source: Analysis of Budgeted Expenditure on Education (1999-2000)

Map No.2.1


Proportion of Budgeted Expenditure Spent on Elementary Education in India (1997-98)
N
W
E
S
% of Budgeted Expenditure Allocated for Elementary Education
60 - 67
55 - 60
49 - 55
33 - 49
27 - 33
(Map not to Scale)

emphasis given on elementary education could not be sustained and agenda to implement UEE took a backseat to give priority to technical and higher education to cater the need for trained manpower to complete in a globalised regime. The strong resolve of UEE suffered a setback in West Bengal also as the share of elementary education in total revenue expenditure in the budget on education declined from 59.8% in 1986-87 to 36.32% in 1992-33 and then further to 33.21% in 1997-98. States like H.P. and M.P. had shown a reverse trend and the financing structure within education sector had changed in favour of elementary education. For M.P. it was 43. % in 1986-87, reached 59.60% in 1992-93 and 63.59% in 1997-98. Andhra Pradesh and Bihar also had followed the same trend, though the shift was not so fascinating in numerical terms. This trend can be judged as an effort by these states to spread basic education among all and sundry. Another state, Himachal Pradesh had also given lopsided emphasis on elementary education as the values of the aforesaid indicator increased from 36.8% in 1986-87, to 54.77% in 1992-93 and to 54.1% in 1997-98. H.P. was one of those states which had achieved stupendous success in the spread of education. So, the increases in the share of basic education to total expenditure by the states like Bihar. Andhra Pradesh and M.P. could be regarded as a right strategy to raise their level of education development.

2.3.3. Capital Account Expenditure on Elementary Education

Within the budget framework resources flow in two forms – capital account expenditures and revenue account expenditures. In total budget allocation on education, share of capital account was infinitesimally small. As a lion's share of revenue account expenditure was spent on personnel cost, very little amount was left to be spent on instructional items and administration. In order to extend the net of formal education to every nook and corner of the country, it was important to increase the share of capital expenditure in the budgetary allocation.

Capital expenditure on education as percentage to total capital expenditure of the government had decreased consistently since mid-1980s. It was 2.9% in 1986-87, declined to 2.1% in 1992-93, and diminished further to reach 1.66% in 1997-98.

In economically well-off states like Maharastra, Punjab, and Haryana capital account expenditure on education as a percentage of total capital expenditure by

government declined in 1990s. In Punjab it was 6.4% in 1992-93 (see Table No.2.6) and decreased only to 1.76% in 1997-98 (see Table No.2.7), for Maharashra it was

Table No.2. 6

Capital Account Expenditure on Education (1992-93)

1	2	3	4	5	6
	(Values in Rs. Thousand)			(Values in Percentage)	
States/Uts	Capital A/C Expenditure on Elementary Education	Total Capital A/C Expenditure on education	Total Capital A/C Expenditure in the Budget	%COL.2 TO COL.3	%COL.3 TO COL.4
A.P.	27263	47725	80219451	57.13	0.06
Arunachal Prd.	0	119822	1522160	0.00	7.87
Assam	0	0	2378299	0.00	0.00
Bihar	0	78369	17761661	0.00	0.44
Goa	7568	34872	1324047	21.70	2.63
Gujarat	4256	110264	7988500	3.86	1.38
Haryana	4446	134628	2283348	3.30	5.90
H.P.	14774	45293	2639987	32.62	1.72
J&K	0	0	4712200	0.00	0.00
Karnataka	540	41235	7866336	1.31	0.52
Kerala	20281	21132	2778956	95.97	0.76
Mp	73937	324853	83653187	22.76	0.39
Maharastra	0	265023	13800080	0.00	1.92
Manipur	1900	7162	997178	26.53	0.72
Meghalaya	0	30220	1025861	0.00	2.95
Mizoram	1415	6870	957725	20.60	0.72
Nagaland	5300	59218	1193054	8.95	4.96
Orissa	75400	106481	5873911	70.81	1.81
Punjab	0	168263	2591028	0.00	6.49
Rajasthan	41851	124210	7001284	33.69	1.77
Sikkim	0	38600	868061	0.00	4.45
Tamilnadu	359	53318	3223657	0.67	1.65
Tripura	524	20390	765921	2.57	2.66
U.P.	3634	515500	12703818	0.70	4.06
W.B.	0	0	2637235	0.00	0.00
A&N Island	19152	74222	1219427	25.80	6.09
Chandigarh	5096	36637	546932	13.91	6.70
Dadra &N.Haveli	0	14549	137025	0.00	10.62
Daman &Diu	0	9103	122085	0.00	7.46
Delhi	0	218653	3905690	0.00	5.60
Lakshadeep	0	4985	91484	0.00	5.45
Pondichery	0	14849	369996	0.00	4.01
India	428058	2687426	127679584	15.93	2.10

Data Source: Analysis of Budgeted Expenditure on Education (1994-95)

Table No.2. 7.
Capital Account Expenditure on Education (1997-98)

1	2	3	4	5	6
	(Values in Rs. Thousand)			(Values in Percentage)	
States/Uts	Capital A/C Expenditure on Elementary Education	Total Capital A/C Expenditure on education	Total Capital A/C Expenditure in the Budget	%Col.2 To Col.3	%Col.3 To Col.4
A.P.	14188	84417	10860100	16.81	0.78
Arunachal Pradesh	69251	69251	2935700	100.00	2.36
Assam	0	0	3293100	-	0.00
Bihar	0	0	2265500	-	0.00
Goa	8712	69281	1142600	12.57	6.06
Gujarat	11823	109173	18592000	10.83	0.59
Haryana	10	121275	4922100	0.01	2.46
H.P.	54817	160870	5407300	34.08	2.98
J&K	0	0	1204900	-	0.00
Karnataka	0	75420	12099500	0.00	0.62
Kerala	19698	258685	7588700	7.61	3.41
M.P.	167931	376901	16777900	44.56	2.25
Maharastra	0	313767	32117900	0.00	0.98
Manipur	13900	488321	2480300	2.85	19.69
Meghalaya	10958	26016	1258800	42.12	2.07
Mizoram	1400	1400	1673400	100.00	0.08
Nagaland	28000	36450	1853600	76.82	1.97
Orissa	0	11803	8566000	0.00	0.14
Punjab	0	0	9698200	-	0.00
Rajasthan	64901	125361	2506900	51.77	5.00
Sikkim	18379	42210	1072300	43.54	3.94
Tamilnadu	1257	258387	14677900	0.49	1.76
Tripura	0	4144	2151700	0.00	0.19
U.P.	15239	436734	16676300	3.49	2.62
W.B.	2942	122434	6338000	2.40	1.93
A&N Island	59808	156232	1680315	38.28	9.30
Chandigarh	12215	35645	618548	34.27	5.76
Dadra &Nagar Haveli	18528	14028	235401	132.08	5.96
Daman &Diu	0	28045	182703	0.00	15.35
Delhi	151839	815242	6654200	18.63	12.25
Lakshadeep	0	9790	168556	0.00	5.81
Pondichery	877	20570	1168686	4.26	1.76
India	749573	3842352	232074204	19.51	1.66

Data Source: Analysis of Budgeted Expenditure on Education (1999-2000)

1.92% in 1992-93 declined to 0.98% in 1997-98, for Haryana it was 5.9% in 1992-93, sank to 2.46% in 1997-98. Economically and educationally backward states like Arunachal Pradesh, Nagaland, Sikkim and U.P., were dedicating considerable amount of their capital account expenditure on education earlier, experienced a decline in 1997-98. This trend may be attributed to resource squeeze from the education sector in order to meet the needs of other sectors to comply with the requirements of a new liberalised regime. Kerala was the only significant exception in that regard. It was allocating only 0.71% of total capital account expenditure on education in 1992-93, increased to 3.41% in 1997-98.

As it has been already established that share of capital account expenditure in education finance was negligible, but even smaller proportion of that meager amount is spent on basic education. The situation looked worrisome, as for some states like West Bengal, Bihar, northeastern states and the UTs expect Delhi and Chandigarh, capital account expenditures on basic education were nil. On the other hand, Kerala had allocated 95.97% of capital account expenditure on education for basic education. States like Orissa (70.81%), H.P. (32.62%), Rajasthan (33.6%), and Goa (21.7%) had considerable proportion of capital expenditure channelised to the development of elementary education 1992-93. In 1997-98, the situation had changed. Some of the northeastern states earmarked almost cent percent of the allocation for elementary education. But states like Assam, Bihar, Jammu & Kashmir, Punjab, and Maharastra did not allocate any resources on capital account for elementary education.

Like the other indicators of education finance, investment in capital account had also followed an erratic pattern across states. The reluctance on part of the economically developed states to make considerable allocation on capital account could not be exonerated. On the other hand, the states that had considerable progress in the field of elementary education in recent years had actually made significant allocation of resources on education in the capital account of the budget. So, the states that are still in the backwater in the field of basic education should make committed endeavours to toe that trend.

2.3.4 Share of Plan Expenditure in the Revenue Account of Education Budget

The proportion of budgetary allocation for elementary education, earmarked as plan expenditure is relatively small if not insignificant in some of the states. The importance of plan expenditure lies in the fact that non-plan expenditures are made mainly as recurring expenditures and are not development generating. In order finance reform processes, harnessing resources under the head of plan expenditure is a necessary prerequisite.

At the national level, the share of plan expenditure in the revenue account of the budget was increasing. It was only 5.9% in 1980-81, reached 7.7% in 1986-87, and leaped to 20.7% in 1997-98. The same did not hold good in case of all states. In 1986-87(see Table No.2.3), Maharastra had only 2.13% of plan expenditure on revenue account, lowest among all Indian states. On the other hand, Gujarat had spent 78.1% on plan expenditure in revenue account. Educationally better performing states like Kerala (4.4%), Punjab (2.49%), Maharastra (2.13%) and H.P. (2.79%) had low proportion of plan expenditure in the budget. Even the states, which were not developed in terms of basic education like Bihar (8.51%), U.P. (7.95%), Orissa (7.75%), and H.P. (4.63%) also, had low level of plan expenditure.

In 1992-93 (see Table No.2.4), we could observe a visible transformation in the pattern. North- eastern states and Delhi allocated significant amount under the head of plan expenditure. Along with those states Goa (14.89%) and H.P. (20.67%) made significant progress in this field. But Kerala (0.39%), Punjab (1.93%) and Tamil Nadu (4.19%) remained at the lowest echelon, along with West Bengal (2.8%), Bihar (5.72%) and Orissa (7.37%). In 1997-98 (see Table No.2.5), Kerala (8.39%) made some progress along with H.P. (33.75%), but Punjab remained at a low level along with West Bengal, Bihar, and M.P. etc.

The aforesaid analysis presents an enigmatic picture. In the mid-1980s, leaving a few outliers, all the states had low level of plan expenditure. Till the end of 1990s, some educationally developed states like Kerala, Tamil Nadu, Punjab, and Maharastra etc retained that trend with only marginal increase in the level of plan expenditure. Northeast, Goa, H.P. which had progressed in the field elementary education in recent years, had increased the share of plan expenditure in 1990s. The lower level of plan expenditure in the part of first set of the states could be justified, as they already had a well coordinated instructional and pedagogic infrastructure for imparting formal elementary education, efficient use of that could bring them close to

the goal of UEE. The second set of states was the newly emerging states in the field of basic education. Those states, with the initiation of reform in education achieved stupendous success. These states allocated a considerable amount of total revenue expenditure for the fulfillment of commitments made in the plans. There was a third set of states also, consisting of the state like Bihar, West Bengal, Orissa, U.P. etc. showed apathy to escalate level of plan expenditure and accelerate the growth of elementary education in the states.

2.3.5 Inter-Functional Allocation Of Resources

The prevalent trend in inter functional allocation of resources in elementary education was that infinitesimally small proportions of total expenditure were made available for the development of important teaching-learning materials and to enhance the overall efficiency of education system. Exorbitantly high proportion of the total outlay went to the elementary schools under different managements i.e. Government, Local Bodies and Private Aided schools (see Table No.2.8).

The proportion of outlay allocated to different types of schools did not follow any consistent pattern, and trend was zigzag over time and space. Aid to private schools had declined considerably over time in recent years, as it was 21.5% in 1986-87, 17.41% in 1992-93, declined to 2.88% in 1997-98. Only Kerala (58.5%) and West Bengal (87.07%) extended considerable amount of aid to elementary schools under private management in 1992-93. In 1997-98, Kerala (91.37%), Maharashtra (96.08%) and Delhi (95.88%) showed a sudden increase in fund allocated for local body schools. This may be due to the emphasis given by 73rd Constitutional Amendment on the decentralisation of political and economic power. The fund allocated on teachers training had marginally gone down, as it was 1.27% in 1992-93 and decreased to only 0.51% in 1997-98. Allocation on scholarships and other incentives had fallen from 0.36% in 1992-93 to only 0.19% in 1997-98. It was not the marginal decline under these heads but negligible proportion allocated on these items was more worrisome.

Table No.2.8

Intra-Sectoral Allocation of Public Expenditure on Elementary Education in India

	1987-88	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Direction, Inspection & Administration	1.7	2.4	2.6	2.9	2.7	2.5	2.21	2	2.64
Assistance to govt. schools	34.6	37.5	27.1	50.1	36.7	42.9	39.5	39.9	46.14
Assistance to private schools	21.5	25.9	26.4	17.4	16.3	19.1	21.6	22.3	2.88
Assistance to local body schools	28.6	22.7	23	24	23.1	23.3	23.2	22.5	24.25
Teachers' training	1.2	6.5	7.1	1.2	7.7	7.2	7	6.9	0.51
Non-formal education		0.5	9.7	0.6	8.6	0.4	1	0.8	0.5
Scholarships			0.4	0.4	0.2	0.1	0.2	0.3	0.19
Text books			0.2	0.5	0.4	0.4	0.5	0.5	0.57
Others	12.3	4.5	3.5	3	4.4	4.2	4.8	4.8	4.3
Total	100	100	100	100	100	100	100	100	100

Source: Analysis of Budgeted Expenditure on Education (Various Years)

Table No. 2.9

Expenditure on Elementary Education by Items

(Values are in Percentages)

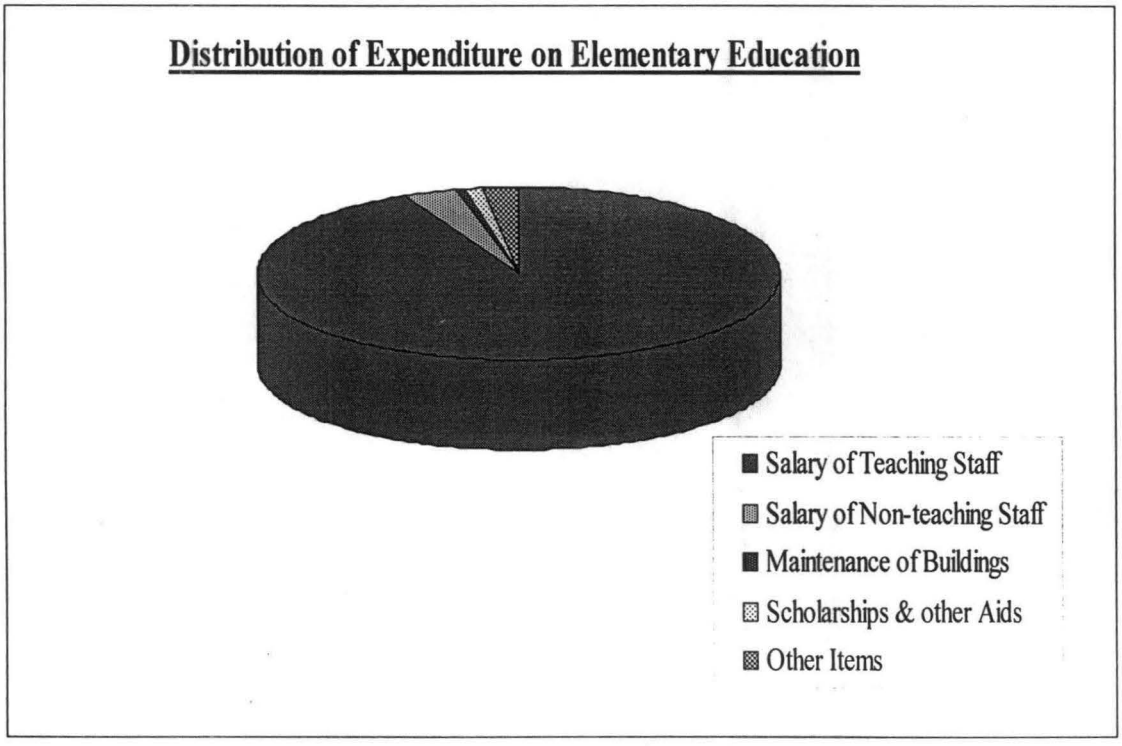
Items	Primary	Middle	Elementary
Recurring Expenditures			
Salary of Teaching Staff	93.6	90.4	92.2
Salary of Non-teaching Staff	2.8	3.8	3.3
Maintenance of Buildings	0.6	0.7	0.7
Maintenance of Equipment & Furniture	0.2	0.3	0.2
Apparatus, Chemicals etc.	0.1	0.1	0.1
Libraries	0	0.1	0.1
Scholarships & other Aids	0.5	1.7	1
Games & Sports	0.1	0.1	0.1
Hostels	0.1	0.2	0.1
Other Items	1.9	2.7	2.3
Total Recurring Expenditures	100	100	100
Non-Recurring Expenditures			
Libraries	0.8	2.9	1.7
Buildings	55.8	46.5	51.9
Equipment	6.1	7	6.5
Furniture	7.1	6.9	7
Other Items	30	36.7	32.9
Total Non-Recurring Expenditures	100	100	100
Total Recurring Expenditures	98	97.9	98
Total Non-Recurring Expenditures	2	2.4	2

Source: Education in India 1983-84.

The data available for 1990s, is presented in a format that it does not put across too much of information .It did not provide any further breakup of how the funds that were allocated as 'aids' were reallocated by the school managements. Data published in 1983-84 (see Table No.2.9) in 'Education in India' showed that only 2% of the total expenditure on elementary education was on non-recurring items, 98% of which was devoted to the construction of building and rather insignificant proportion was available for the development of teaching –learning items like libraries, text books etc. On the other hand of the 98% of the total expenditure was on

recurring items, 92.2% was spent on teacher's salary, and teaching and non-teaching salary together consists a formidable 95.5% of total recurring expenditure. So, there was no reason to believe that this pattern has changed drastically over the last decade. So it is the logical deduction of many scholars that the aid given by the government to the schools can be equated to the personnel-cost. Dearth of resources available for the development of instructional materials has made elementary education stagnant (See chart No.2.1)

Chart No. 2.1



2.3.6. Per Student Expenditure on Elementary Education

Per student expenditure on education is an indicative of quality of education. In elementary education the growth rate of expenditure in real terms had been as low as 2.1% at primary level and 1% at the middle level. Manifold increase in allocation in current prices, looked insignificant in per capita terms. In the year 1997-98 (see Table No.2.10), lowest per capita budget expenditure (revenue account) was made by W.B. (Rs.722.8), followed by Andhra Pradesh (Rs. 876.09) and M.P. (Rs. 912.79).

Those states were both educationally and economically backward. But economically well of states like Tamil Nadu, Karnataka and Punjab also had per student expenditure below the level of national average (Rs. 1375.30). The comparison between the data for the years 1992-93 and 1997-98 revealed that considerable

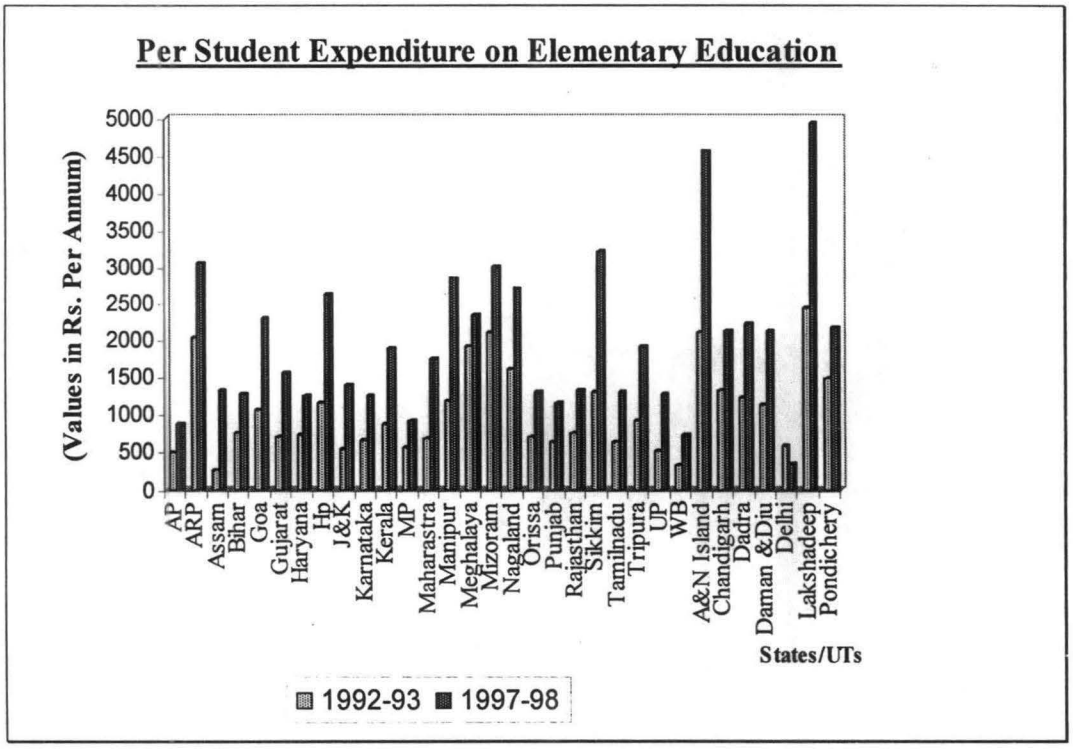
Table No. 2.10
Per Student Expenditure on Elementary Education

States/Uts	1992-93	1997-98
AP	487.32	876.09
ARP	2027.14	3063.73
Assam	257.4	1333.44
Bihar	761.08	1280
Goa	1055.07	2295.26
Gujarat	708.19	1570.06
Haryana	740.49	1254.32
Hp	1159.87	2625.93
J&K	552.83	1392.61
Karnataka	662.34	1254.11
Kerala	863.91	1903.12
MP	572.18	912.79
Maharastra	675.62	1763.25
Manipur	1177.81	2854.94
Meghalaya	1918.42	2338.43
Mizoram	2105.6	3011.42
Nagaland	1599.47	2714.17
Orissa	704.89	1301.36
Punjab	627.28	1168.55
Rajasthan	759.4	1314.62
Sikkim	1298.97	3222.55
Tamilnadu	644.99	1298.14
Tripura	925.24	1926.32
UP	512.52	1272.73
WB	332.81	722.8
A&N Island	2105.4	4563.6
Chandigarh	1325.78	2135.9
Dadra &Nagar Haveli	1238.23	2224.44
Daman &Diu	1132.27	2130.93
Delhi	580.96	356.9
Lakshadeep	2448.26	4936.92
Pondichery	1499.32	2173.68
India	**657.79**	**1375.31**
C.V.	54.94%	52.19%

Source: Analysis of Budgeted Expenditure On Education (Various Years).

regional disparity exists in this regard. The values for the coefficient of variation also declined marginally. So, it could be said that even though in many terms the resources mobilised for financing education looks impressive, it had failed to keep pace with increasing number of enrolment in schools, and the goal of quality elementary education to all students remained elusive.

Chart No.2.2



2.4. Conclusions

The aforesaid discussion churns out the truth that the inadequate amount of resources mobilized for supporting elementary education, as well as lopsided financing structure; both are responsible for dismal performance in the sector. Universalisation of elementary education is a Constitutional obligation, which has not been fulfilled even after more than 50 years of Indian independence.

Since independence phenomenal increase has been made in terms of total outlay for financing elementary education. This expenditure was proved incommensurate with the achievement of UEE. Low growth rate of per capita and

per student expenditure suggested that serious compromises have to be made on the ground of quality of education to bring every child to school.

- Exorbitantly high proportion of total budgetary outlay on education is allocated for bearing revenue expenditures. As these are mostly recurring in nature, hardly any fund is left to finance the capital works, much needed to guide reform in education sector.
- The share of plan expenditure to total budget is also very low. Most of the non-plan expenditures are non-development generating. In order to finance spread of formal education, it is compulsory to provide more funds under the head of plan expenditure.
- At the regional level no consistent trend can be delineated over the period of time. This fact eventually vindicates the view that educational finance in India is fraught with adhocism as the planning efforts are sporadic and piecemeal.
- Most of the economically developed states have shown cynical attitudes to carry forward the agenda of UEE. It is true that these states have high NSDP; even if a small proportion of it is spent on education, which will not be grossly inadequate. Nevertheless, it is also true that none of these states have been able to achieve the goal of UEE. So, it cannot be denied that financial commitments should be made on their part to implement the Constitutional obligation of sending every child to school.
- Privatisation of elementary education is not the strategy, which is remotely practicable, neither has it had too many champions in India nor afar, as it comes with the fear of miscarriage of social justice and equity. Even the schools aided by Government managed privately have led to misallocation of resources (Tilak 2000, pp.33-34). In recent years, there are increasing numbers of projects that are being funded by international agencies. The aids are bilateral and multilateral. But these contributions are made on project –by-project basis as a result of that they are sporadic and piecemeal in nature. There is widespread apprehension among academicians whether these external aids will lead to capacity building in long term or not (Nautiyal, 1995, pp. 383-84).

The discussion can be ended with the note that resource crunch can be one of the hindrances on the path of universalisation of elementary education. Politicians have used it as a popular alibi to hide their insincerities and lack of

commitment. Adequate availability of resource and readjustment in financing structure will not ensure UEE. More deep-rooted socioeconomic and political reform is warranted in order to send every child to school.

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Chapter-III

Educational Infrastructure in Rural India

3.1. Introduction

In the existing literature the role of basic education, as catalyst of social change and economic well-being, has received widespread recognition. In spite of that, lack of real commitment to the expansions of basic education on the political front is really astonishing. What is perhaps most striking of all failures is that, even after more than fifty years of independence no single state in India has all rural habitations covered by a primary school. This problem is even more prevalent in the remote areas where the climate is hostile or the terrain is inhospitable or both.

Nevertheless, it must be duly emphasized that mere establishment of schools within easy access of the school going population will not ensure their enrolment and continuance in the education system. Improvement in the quality schooling is regarded as the cornerstone of the strategy to implement universal retention and enrolment. A widely held view among the academia is that in the developing countries where the enrolment is not universal and dropout rate is substantial, the real measure of school quality is more closely related to the factors affecting enrolment and retention than the cognitive competencies of the students (Llyod, Mensch etal 2000, p.113).

Furthermore, gender dimensions in the provision of school facilities actually deserve special attention. In most developing nations, including India, retention of girl students starts declining as soon as they reach puberty. Recruitment of more women teachers and designing more gender sensitive curriculum are the steps that should be taken to make school environment more hospitable for the girl students.

In order to serve redistributive justice to the weaker sections of the society, it is mandatory to provide to them education facilities. Due to lack of political clout of the weaker sections, their education receives little attention in reality. Education facilities available in most of the areas dominated by SC/STS are impoverished

compared to other areas if not non-existent. This phenomenon acts as a major bottle neck on the way to achieve universal elementary education.

Poor administration and under utilization of the existing infrastructure, both physical and instructional, is one of the root causes of the diverse failure of education in India. Lack of quantifiable data at a macro level acts as constraint to develop a study on a under utilization of basic schooling facilities in rural India. Nevertheless, literature based on micro level, studies provide enough evidence to believe that inconsistencies in the implementation of existing schemes, dysfunctional nature of existing schooling system.

3.2. Availability of School Facilities in Rural India

The stepping stone towards the achievement of Universal Elementary Education (UEE) is the establishment of school facilities within easy access for every child. According to Sixth All India Education Survey (AIES), there are total 50, 7581 primary schools in rural India. This absolute number had increased considerably since first AIES in 1957, but the impact had been diluted by phenomenal population growth in rural areas. In 1957, there were only 59.75% of the rural population was covered by primary school facilities within habitation and 83.09% had it within walking distance of 2 kms; according to Sixth AIES this figure had increased to 77.81% and 98.00% respectively in case of primary schools. So, it could be observed that access to primary schools/sections within walking distance is near universal.

A necessary prerequisite for universilisation of elementary education is to give opportunity to the potential candidates to have access to upper primary level of education. But universal access to upper primary education still remains a far cry. In the first two AIES (1957, 1965) a distance of 5 kms (3 miles) was considered to be walking distance, convenient enough for students of class VI to VIII to walk, the distance was reduced to 3 kms afterwards . Since then facility available within the habitation has increased from 28.86% to 37.02% of total rural population. As a whole 85.00% of the total population have access to upper primary schools/sections within walking distance.

3.2.1 Availability of Primary School Facilities

At the national level 78.53% of the rural population had **primary schools/sections within habitation** in 1978. This value had increased to 80.35% in 1986 and 77.81% in 1993. Between Fifth and Sixth Survey coverage by primary schools within habitation has actually declined, presumably due to growth of population.

Table No.3.1

Proportion of Rural Population with Access to Primary Schools (1978)

	(All Areas)		(SC. Dominated Areas)		(ST. Dominated Areas)	
States/ Uts	Within Habitation	Within 1km.	Within Habitation	Within 1Km.	Within Habitation	Within 1Km.
A.P.	91.84	96.06	80.11	95.41	50.9	63.39
Assam	81.34	94.21	84.56	95.56	78.24	92.3
Bihar	77.98	95.54	51.34	90.61	55.63	86.45
Gujarat	94.96	98.14	84.4	95.63	82.87	92.83
Haryana	94.07	98.58	79.89	96.31	0	0
H.P.	38.01	71.54	29.21	64.51	55.68	77.89
J&K	74.66	89.94	59.37	84.83	0	0
Karnataka	89.17	95.59	73.31	89.42	67.9	78.81
Kerala	90.64	93.35	68.05	77.27	74.81	76.11
M.P.	77.14	90.17	65.46	84.82	53.93	79.65
Maharastra	90.1	96.97	38.94	85.68	73.29	86.65
Manipur	92.82	98.09	96.18	100	92.62	96.69
Meghalaya	76.12	88.53	100	100	76.06	88.27
Nagaland	98.35	99.49	0	0	98.36	99.5
Orissa	76.58	93.95	61.8	91.48	64.63	83.76
Punjab	97.34	99.72	94.47	99.37	0	0
Rajasthan	82.08	88.5	59.89	74.61	67.63	77.05
Sikkim	42.35	64.34	32.39	39.43	0	0
Tamilnadu	81.74	94.63	4.66	94.48	49.74	64.85
Tripura	54.42	81.29	70.36	87.43	34.82	63.53
U.P.	52.97	85.84	27.93	78.72	58.91	80.31
West Bengal	85.07	96.28	86.39	96.97	68.39	90.18
A&N Island	70.49	81.86	0	0	49.45	79.95
Arp	55.9	60.69	0	0	52.53	57.32
Chandigarh	89.42	100	20.03	100	0	0
Dnh	45.43	86.99	25.83	100	47.18	83.56
Delhi	85.29	99.75	42.32	100	0	0
Goa, Daman & Diu	56.82	88.97	0	100	63.57	93.52
Lakshadweep	100	100	0	0	100	100
Mizoram	74.54	74.63	0	0	74.55	74.64
Pondicherry	87.72	97.15	8.25	94.48	0	0
India	**78.53**	**92.82**	**62.4**	**88.94**	**63.96**	**82.99**
C.V.	22.59	11.52	73.58	47.62	61.78	57.19

Source: Calculated from Fourth AIES

According Fourth AIES (1978) (see Table No.3.1) at the state level H.P. (38.01%), Sikkim (42.35%), along with UP (52.97%), Tripura (54.42%) had very low coverage by primary schools within habitation. Some of the UTs like Dadra and Nagar Haveli (45.53%), Arunachal Pradesh (55.9%), Goa, Daman & Diu (56.82%) also had very low figures.

Table No.3.2

Proportion of Rural Population with Access to Primary Schools (1986)

	(All Areas)		(SC. Dominated Areas)		(ST. Dominated Areas)	
States/ Uts	Within Habitation.	Within 1km.	Within Habitation	Within 1km.	Within Habitation	Within 1km.
A.P.	93.29	97.3	83.49	96.2	63.63	77.8
Arunachal Prad.	65.85	73.35	0	100	64.35	70.88
Assam	81.74	93.57	84.53	94.14	74.99	92.1
Bihar	78.53	95.86	55.07	88.94	58.87	87.49
Goa	57.72	90.6	6.11	86.55	0	0
Gujarat	97.83	99.45	71.13	98.34	95.4	98.72
Haryana	96.68	99.37	89.95	98.23	0	0
H.P.	46.51	96.64	34.74	67.16	58.51	79.84
J&K	78.23	90.7	69.89	88.95	0	0
Karnataka	92.5	97.24	84.27	94.61	92.08	96.07
Kerala	87.67	94.39	95.49	95.49	68.77	73.54
M.P.	81.51	92.92	73.08	89.46	66.01	87.42
Maharastra	92.42	97.95	49.95	92.42	80.52	91.23
Manipur	98.97	97.39	96.33	98	93.98	95.68
Meghalaya	80.87	89.22	0	0	80.87	89.22
Mizoram	98.05	98.28	0	0	98.05	98.28
Nagaland	98.85	99.45	0	0	98.85	99.45
Orissa	77.08	92.83	62.76	91	66.35	83.58
Punjab	96.8	99.59	93.88	98.9	0	0
Rajasthan	86.84	92.9	72.64	82.86	77.97	87.07
Sikkim	72.13	83.11	93.24	96.29	57.87	72.12
Tamilnadu	83.92	96.02	80.11	96.64	64.31	81.57
Tripura	57.04	84.12	61.19	88.79	47.73	75.42
U.P.	55.69	88.57	33.9	83.32	70.43	87.39
West Bengal	79.71	97.38	79.23	96.12	75.1	94.72
A&N Island	68.41	83.01	0	0	69.08	82.43
Chandigarh	96.92	99.67	100	100	0	0
Dadra,N. Haveli	50.74	85.19	0	90.21	51.94	84.96
Daman & Diu	77.12	94.78	0	51.67	75.23	97.01
Delhi	98.06	100	93.4	100	0	0
Lakshadweep	100	100	0	0	100	100
Pondicherry	88.54	99.02	69.62	99.5	0	0
India	80.35	7.53	66.31	91.14	72.18	88.38
C.V.	19.06	6.80	69.28	45.53	58.53	55.00

Source: Calculated from Fifth AIES.

On the other hand some of the northeastern states like Nagaland (98.35%) Manipur (92.82%), along with Kerala (93.35%), Punjab (97.34%), Haryana (94.07%), and Gujarat (94.96%) had achieved commendable success in providing primary school facilities within habitation. Northeastern states like Nagaland Manipur, Mizoram along with Kerala, Punjab, and Haryana had lion's share of population covered by primary schools within their village.

According to Sixth AIES data (see Table No.3.3) the regional scenario had not changed considerably since 1986. H.P. still had only 45.07% of the rural population covered by primary schools within habitation, which was actually a marginal decline over the last survey figure of 46.51%. Other states like U.P. (60.5%), and West Bengal (61.22%) had large proportion of population left outside the purview of primary schooling facilities within the habitation. One the other hand states like Gujarat (97.12%), Haryana (94.47%), Mizoram (94.35%), Nagaland (92.36%), Andhra Pradesh (92.45%) and Goa (91.77%) had satisfactory situation prevailing in the state. The situation had improved significantly in Goa as compared to the previous surveys.

As per Fourth (see Table No.3.1), Fifth(see Table No.3.2) and Sixth AIES(see Table No.3.3), 97.87% 97.53% and 93.76% of the population respectively, had primary schools/sections either within habitation or **within convenient walking distance** of one km. Among the Indian states, as per Fourth AIES, Sikkim (64.34%), H.P. (71.54%), Arunanchal Pradesh (60.69%), Mizoram (74.63%) had sizeable proportion of population not served by primary sections even within walking distance. Data for the year 1986 reflected that states like H.P. (46.64%), U.P. (33.57%), and Arunanchal Pradesh (73.35%) had dismal condition in terms of expansion of schooling within walking distance. According to the Sixth AIES data also HP (75.97%) has the worst coverage followed by Sikkim (83.44%) and Arunanchal Pradesh (77.87%). So the ongoing discussion reveals the fact the task of provision of school facilities within easy access for each children remains to be fully accomplished. Persistence of absence of schools over the years, especially in some of the hill states, is an outcome of lack of political will to achieve target of education for all.

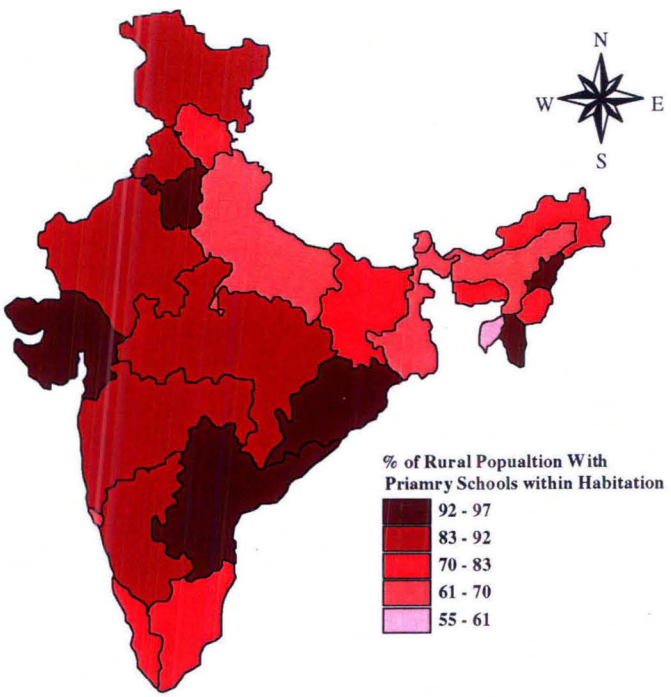
Table No.3.3
Proportion of Rural Population with Access to Primary Schools (1993)

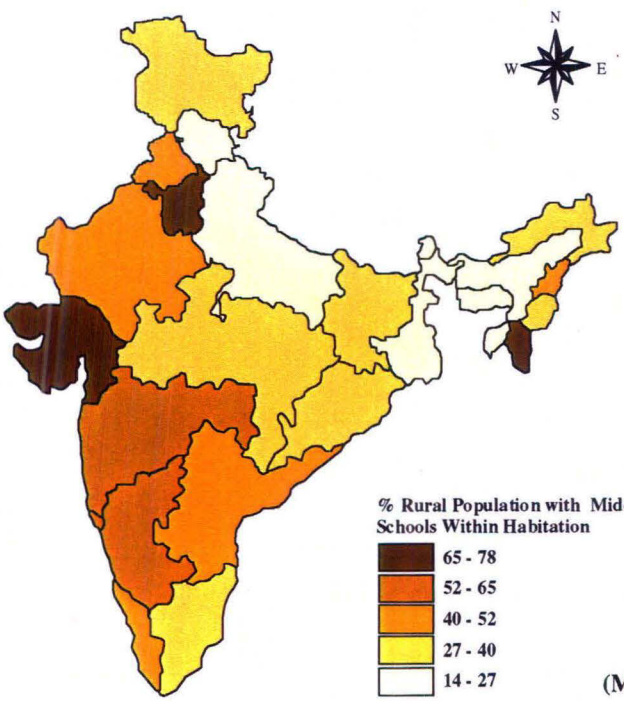
States/ Uts	(All Areas)		(SC. Dominated Areas)		(ST. Dominated Areas)	
	Within Habitation	Within 3km.	Within Habitation	Within 3km.	Within Habitation	Within 3km.
A.P.	92.45	97.62	82.08	97.17	69.82	82.08
Arunachal Pradesh	70.12	77.87	96.91	97.61	70.38	78.13
Assam	66.27	88.61	72.68	91.51	67.88	87.36
Bihar	77.19	95.51	57.3	91.26	57.46	87.09
Goa	66.27	97.01	95.82	95.82	0	0
Gujarat	97.12	98.78	91.18	96.27	94.27	97.7
Haryana	94.47	98.47	91.41	96.84	0	0
H.P.	75.91	95.07	33.3	67.83	53.1	76.65
J&K	82.68	92.37	73.01	88.55	94.9	86.27
Karnataka	91.11	96.58	85.65	95.13	90	95.4
Kerala	76.67	89.68	59.2	81.74	59.33	75.86
M.P.	84.67	93.55	84.04	94.02	71.49	87.46
Maharastra	90.65	93.82	73.33	91.12	82.89	91.32
Manipur	82.26	94.12	95.01	98.37	84.58	92.44
Meghalaya	74.05	87.97	0	0	74.33	87.93
Mizoram	94.3	95.77	0	0	95.1	96.22
Nagaland	92.36	95.05	0	0	92.36	95.05
Orissa	96.1	93.74	67.85	93.12	66.22	87.19
Punjab	90.83	99.32	90.89	99.32	0	0
Rajasthan	85.39	92.55	72.19	86.58	74.23	87.12
Sikkim	65.59	83.44	91.82	97.69	61.64	79.62
Tamilnadu	77.16	99.53	72.94	99.59	73.32	99.72
Tripura	55.43	85	56.79	89.16	49.7	78.75
U.P.	60.5	88.6	46.69	85.57	68.43	89.57
West Bengal	61.22	93.07	58.81	91.64	48.58	88.12
A&N Island	70.45	81.75	0	0	68.58	84.81
Chandigarh	89.86	96.07	100	100	0	0
Dadra & N.Haveli	40.06	86.83	19.07	92.32	44.76	85.12
D&D	72.25	99.22	0	0	75.59	97.56
Delhi	81.83	93.83	81.7	90.34	100	100
Lakshadweep	86.32	99.73	0	0	86.32	99.73
Pondicherry	74.75	97.68	47.97	96.72	0	0
India	77.81	93.76	64.27	91.32	71.43	88.55
C.V.	17.4	6.84	58.09	49.49	49.41	44.63

Source: Calculated from Sixth AIES

Map No.3.1

Availability of School Facilities Within Habitation in Rural India (1993)





(Maps Not To Scale)

Availability of schooling facility in the habitations predominantly inhabited by schedule castes, as per Fourth, Fifth and Sixth Surveys were 62.40%, 66.31% and 64.27% respectively. According to the Fourth (see Table No.3.1) and Firth Survey(see Table No.3.2) H.P. and Goa along with U.P., Bihar, Maharastra , small proportion of population had primary schools within habitations in the areas predominantly inhabited by SC communities . According to Sixth AIES (see Table No.3.3), in H.P. only 33.3% of population residing in SC dominated areas had primary sections within habitation. U.P. (46.69%), Bihar (57.3%) West Bengal (58.81%) along with educationally most developed states Kerala (59.2%) had values below national average.

Near-parity situation existed among the areas inhabited by SC population and all communities in terms of coverage by primary sections **within convenient walking distance**. The Fourth, Fifth and Sixth Survey figures were 88.44%, 91.14%, and 91. 32% for the variable in concern. Regional scenario had also not transformed over the years as H.P. and Kerala, the two most educationally developed states along with educationally backward states like U.P. had large share of population in areas predominantly resided by SCs, were not being served by primary sections within walking distance.

According to fourth, fifth and sixth surveys 63.96%, 72.18%, 71.43% of population in **ST dominated areas** served by **primary sections within habitation**. At the all India level there was remarkable increase in terms of coverage by schools within habitation between 1978 and 1986, in the areas where majority of population belong to the tribal communities. After that it became stagnant. Fourth AIES data reflected that Tripura (34.82%), Tamil Nadu (49.74%), Bihar (55.63%), Arunanchal Pradesh (52.53%), Andhra Pradesh (50.9%) had low proportion of population in ST dominated areas covered by primary schools within habitation. According to Fifth, Survey situation in A.P. (63.63%) and Tamil Nadu (64.31%) improved, but in Tripura (47.73%), Bihar (58.87%) the provision of the facility remained at a very low level. In 1993 H.P. (53.1%), W.B. (48.48%), along with Kerala (59.33%) had very low coverage of population in ST dominated areas by primary sections within habitation.

In the three subsequent AIESs, the proportion of population in ST dominated areas covered by primary sections within easy walking distance had increased gradually from 82.99% in 1978, to 88. 38% in 1986 and 88.55% in 1993. At the

regional level H.P., West Bengal, Tripura, Arunanchal Pradesh still had very low proportion of population covered by primary sections within walking distance.

Empirical evidences revealed an embarrassing fact that even after fifty years of independence discrimination against ethnic minorities persisted in varied forms. Rampant miscarriage of social justice was reported not only from socially backward states but also from the states regarded as forerunners in the front of social development.

3.2.2. Availability of Upper- Primary School Facilities

Expansion of upper-primary school facilities since the Fourth AIES (1978) had not been remarkable. Proportion or rural population covered by middle school within **habitation** was 33.47% in the Fourth AIES, increased to 36.85% in Fifth Survey and 37.02% in the Sixth AIES. Data for the year 1978 revealed (see Table No.3.4), Meghalaya (15.72%), Arunanchal Pradesh (18.14%) had very low proportion of rural population served by middle schools within habitation. Even states like Haryana (46.78%), Karnataka (51.36%), Kerala (59.44%) had relatively better facilities among Indian states but had sizeable proportion of population not being served by middle schools within habitation. Nevertheless, most of these states had considerable proportion of population being served by middle schools within a walking distance of three kilometers e.g. Punjab (91.77%), Kerala (92.48%) Lakshadweep (99.64%), Delhi (99.33) etc.

Table No. 3.4

Proportion Of Rural Population With Access To Middle Schools (1978)

	(All Areas)		(SC. Dominated Areas)		(ST. Dominated Areas)	
States/ Uts	Within Habitation	Within 3km.	Within Habitation	Within 3km.	Within Habitation	Within 3km.
A.P.	36.01	71.16	6.54	73.71	3.58	28.54
Assam	20.91	78.96	19.13	78.55	15.97	69.42
Bihar	23.14	84.96	5.29	76.27	6.6	60.3
Gujarat	71.71	92.5	35.81	96.35	32.66	81.09
Haryana	46.78	85.21	8.77	67.55	0	0
H.P.	13.31	71.58	8.01	66.24	17.24	52.66
J&K	32.6	83.58	21.29	85.5	0	0
Karnataka	51.36	86.29	13.24	77.88	17.2	64.63
Kerala	59.44	92.48	45.58	72.13	65.05	76.21
M.P.	24.09	63.19	4.83	57.5	6.78	44.39
Maharastra	56.5	87.5	8.24	84.4	15.78	53.09
Manipur	38.62	76.45	65.38	96.14	30.14	51.42
Meghalaya	15.72	53.03	0	100	15.47	51.78
Nagaland	50.72	71.13	0	0	50.72	71.13
Orissa	27.08	80.29	11.36	76.63	8.82	52.28
Punjab	44.45	91.77	21.28	91.01	0	0
Rajasthan	36.82	64.87	9.9	50.2	19.19	53.69
Sikkim	7.66	42.3	0	32.39	0	0
Tamilnadu	29.81	80.57	18.11	81.21	6.72	24.98
Tripura	19.79	71.98	22.89	76.5	4.48	41.12
U.P.	17.33	73.95	3.45	69.2	11.25	46.32
West Bengal	25.39	78.71	12.96	76.46	4.67	51.28
A&N Island	33.38	55.78	0	0	22.07	58.83
Arp	18.14	28.15	0	21.16	13.75	23.65
Chandigarh	61.42	100	20.03	100	0	0
Dadra &N.Haveli	11.24	68.02	0	100	5.1	59.59
Delhi	55.66	99.33	0	99.56	0	0
Goa, Daman & Diu	20.62	92.57	0	100	37.67	100
Lakshadweep	99.64	99.64	0	0	99.64	99.64
Mizoram	64.32	77.41	0	0	64.32	67.41
Pondicherry	53.19	97.41	32.17	90.66	0	0
India	33.47	78.83	12.92	74.14	13.35	53.77
C.V.	55.90	21.68	120.67	47.83	126.10	66.96

Source: Calculated from Fourh AIES.

In 1986 (see Table No.3.5), situation did not improve in the states which had abysmally low proportion of population with access to upper primary schools within habitation.

Table No. 3.5

Proportion Of Rural Population With Access To Middle Schools (1986)

States/ Uts	(All Areas)		(SC. Dominated Areas)		(ST. Dominated Areas)	
	Within Habitation	Within 3km.	Within Habitation	Within 3km.	Within Habitation	Within 3km.
A.P.	40.68	79.18	18.57	79.25	11.52	52.09
Arunachal Pradesh	26.48	42.2	0	0	20.65	35.24
Assam	24.19	83.29	21.94	83.55	14.57	75.54
Bihar	25.86	88.3	6.42	77.45	10.05	68.94
Goa	22.24	91.8	9.66	92.67	0	0
Gujarat	74.91	94.43	36.44	93.91	44.6	84.93
Haryana	61.84	93.12	31.66	86.12	0	0
H.P.	17.73	76.04	9	67.91	21.92	61.44
J&K	34.37	85.99	23.75	84.92	0	0
Karnataka	57.01	89.78	16.72	80	31.49	73.67
Kerala	69.17	96.22	23.5	100	68.34	73.54
M.P.	27.76	69.58	8.6	66.07	11.76	55.34
Maharastra	58.83	88.46	17.9	87.65	20.57	61.36
Manipur	38.48	80.19	39.46	89.26	40.8	61.28
Meghalaya	26.85	64.99	0	0	26.85	64.99
Mizoram	90.37	82.85	0	0	80.37	82.85
Nagaland	43.25	66.41	0	0	43.25	66.41
Orissa	30.45	83.35	15	82.54	12.16	59.35
Punjab	46.93	92.49	27.41	92.7	0	0
Rajasthan	46.3	77	24.38	66.86	24.2	70.41
Sikkim	27.91	76.2	44.48	61.58	22.89	70.75
Tamilnadu	34.36	84.07	23.83	83.79	11.64	31.84
Tripura	25.78	86.31	30.62	96.24	13.23	69.12
U.P.	20.41	81.88	7.39	77.17	19.62	67.47
West Bengal	18.47	82.79	15.33	79.81	9.65	59.91
A&N Island	39.46	73.57	0	0	48.18	75.28
Chandigarh	56.8	100	0	100	0	0
Dadra & N.Haveli	9.14	65.33	0	100	8.41	63.73
D&D	60.89	99.44	0	100	29.94	100
Delhi	58.89	98.6	32.65	100	0	0
Lakshadweep	99.16	99.16	0	0	99.16	99.16
Pondicherry	49.83	96.48	19.28	99.81	0	0
India	36.85	83.98	15.42	79.83	18.71	63.86
C.V.	50.44	15.13	85.06	51.08	103.58	59.69

Source: Calculated from Fifth AIES.

States like Sikkim (27.91%), H.P. (17.73%), Meghalaya (26.85%), Arunanchal Pradesh (26.48%) etc had continued to be laggards in that field. Only some of the educationally advanced states like Haryana (61.84%), Gujarat (74.91%), and Kerala (69.17%) had relatively better coverage. Nevertheless, the provision was no where near the desired level.

Even in 1993 (see Table No.3.6) also situation did not improve in the states like H.P. (17.33%), Sikkim (26.38%), and West Bengal (14.16%) Assam (22.4%), Bihar (27.13%).

Table No. 3.6

Proportion Of Rural Population With Access To Middle Schools(1993)

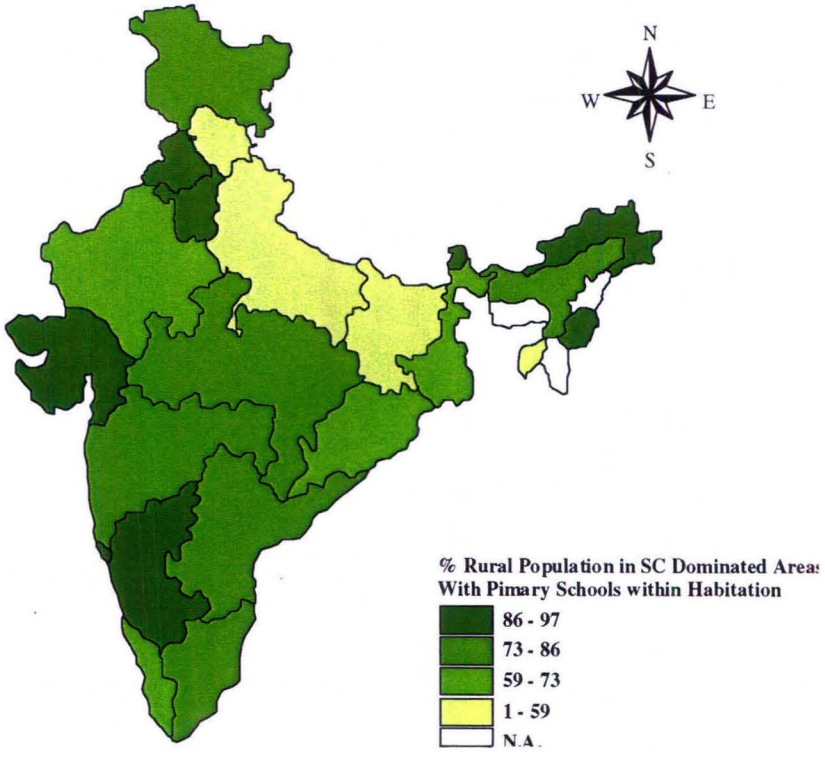
	(All Areas)		(SC. Dominated Areas)		(ST. Dominated Areas)	
States/ Uts	**Within Habitation.**	**Within 3Km.**	**Within Habitation.**	**Within 3Km**	**Within Habitation.**	**Within 3Km.**
A.P.	42.99	79.3	17.24	79.46	10.06	50.27
Arunachal Pradesh	33.13	54.39	45.03	59.75	33.71	52.89
Assam	22.4	87.13	23.71	88.95	17.29	79.87
Bihar	27.13	88.33	12.07	83.84	11.03	70.22
Goa	63.94	92.87	84.34	95.82	0	0
Gujarat	76.79	94.48	63.45	94.05	52.04	85.85
Haryana	64.79	93.26	41.25	86.13	0	0
Hp	17.33	78.22	10.44	72.48	18.55	67.86
J&K	38.41	86.78	28.2	86.44	19.26	66.96
Karnataka	60.86	91.42	33.66	80.51	39.58	78.91
Kerala	50.54	91.84	27.1	80.8	26.3	62.03
M.P.	31.36	72.6	22.61	73.02	14.87	58.99
Maharastra	61.08	87.64	37.12	86.94	28.02	65.85
Manipur	37.25	82.24	23.18	81.44	36.99	68.85
Meghalaya	25.57	69.5	0	0	25.28	68.87
Mizoram	77.55	83.38	0	0	78.3	84.24
Nagaland	47.76	74.54	0	0	47.76	74.54
Orissa	34.21	87.88	26.54	88.15	17.57	73.57
Punjab	45.41	89.68	31.62	87.75	0	0
Rajasthan	46.96	79	28.6	72.02	24.04	70.52
Sikkim	26.38	79.01	55.46	89.04	28.98	79.15
Tamilnadu	35.36	87.78	25.06	85.25	25.91	74.15
Tripura	24.92	85.59	26.92	94.32	11.75	70.08
U.P.	21.69	82.09	10.93	78.25	25.75	79.76
West Bengal	14.16	87.51	11.7	85.48	6.23	72.52
A&N Island	44.39	77.03	0	0	43.68	78.91
Chandigarh	47.15	99.3	0	100	0	0
Dnh	10.07	76.05	6.5	83.55	10.56	72.76
Daman & Diu	63.67	100	0	0	53.12	100
Delhi	58.31	99.05	67.4	96.63	100	100
Lakshadweep	73.29	98.74	0	0	73.29	98.74
Pondicherry	43.73	95.76	9.13	94.62	0	0
India	**37.02**	**85**	**18.5**	**82.59**	**21.56**	**68.95**
C.V.	43.29	11.63	89.82	50.20	87.68	47.31

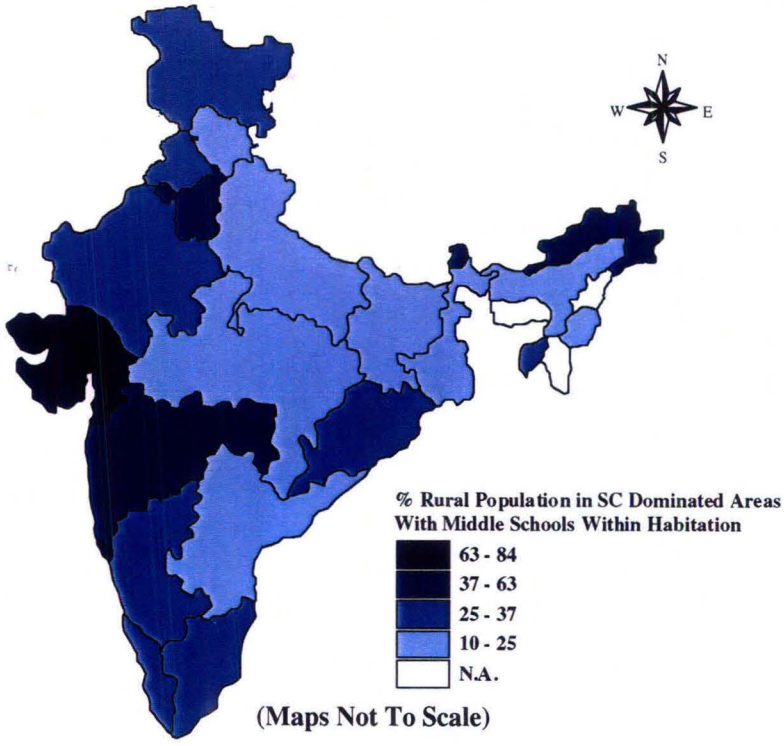
Source: Calculated From Sixth AIES.

They still had a significant proportion of population not being served by middle schools within the habitation.

Map No.3.2

Availability of Elementary Schools in SC Dominated Areas in Rural India (1993)





(Maps Not To Scale)

N.A.=Not Applicable

Proportion of population served by upper primary sections within **walking distance** of three kilometers was 78.83% in the Fourth Survey, became 83.98% in the Fifth and 85.00% in the Sixth Survey. According to Fourth Survey Arunanchal Pradesh (28.15%), Sikkim (42.3%), Meghalaya (53.03%) had large section of population beyond the range of walking distance from a school with middle section. This proportion had gone down over a period of time. Still 1993 data reflected that states like Arunanchal Pradesh (54.39%), H.P. (78.22%), M.P. (72.6%) and Nagaland (74.54%), still had large proportion of population not served by middle schools even within walking distance. So the achievement of the cherished goal of providing middle school facilities within easy access remains a far cry. Plight of the hill states and some of the educationally backward states persist even at this stage. Sensible regional planning efforts are urgently called for to ameliorate the situation.

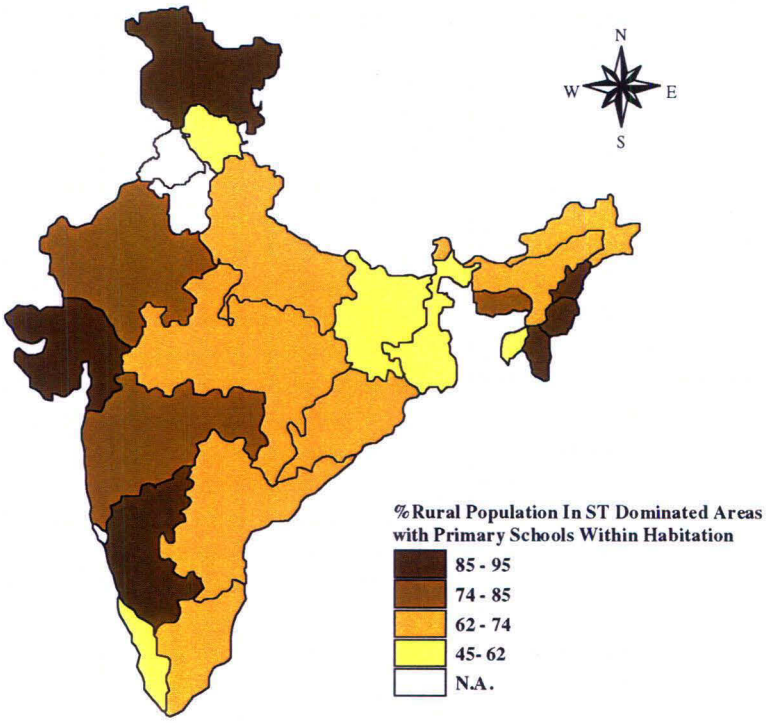
According to Fourth, Fifth and Sixth AIES data proportion of population served by middle schools **within habitation** in areas inhabited **predominately by SC communities** were significantly less than the figures for all areas. It is 12.92%, 15.42% and 18.5% respectively for all three surveys at the national level. But proportion of population in SC dominated areas, served by upper primary schools within walking distance, were almost at par with that of all areas. At the national level, figures were 7414%, 79.83%, 82.59% respectively for all three surveys.

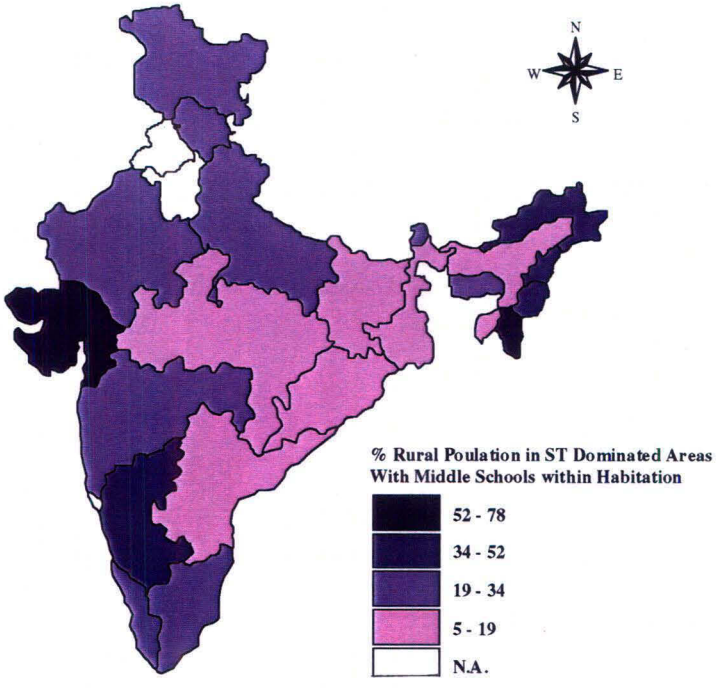
According to Fourth AIES (see Table No.3.4), U.P. (3.45%), Andhra Pradesh (6.54%), Bihar (5.29%), and H.P. (8.01%), Haryana (8.77%), Rajasthan (9.9%) had abysmally low proportion of population covered by middle schools within habitation in the SC dominated areas. 1986(see Table No.3.5) and 1993(see Table No.3.6) data showed improvement in terms of magnitude of coverage by middle schools within habitation. Even in 1993, the figures were very less for some of the states like H.P. (10.44%), U.P. (10.93%) and Bihar (12.07%), West Bengal (11.7%). Most worrisome fact reflected was that even for educationally developed states like Kerala (27.1%), Tamil Nadu (25.06%) etc. figures were low. Situations were better for Haryana (41.25%) Gujarat (63.45%), Goa (84.34%) etc.

Proportion of population served by middle sections within walking **distance** was comparable with all areas even in case of **SC dominated areas**. States like Kerala (92.48%), Punjab (91.77%), and Delhi (99.33%) Lakshadweep (99.64%) had near universal expansion of middle school facilities even in SC dominated areas. Data showed that apart from these states, Gujarat (94.43%), Haryana (93.12%) had

Map No.3.3

Availability of Elementary Schools in ST Dominated Areas in Rural India (1993)





(Maps Not To Scale)

N.A.= Not Applicable

more than 90% of population covered by middle schools/sections even within SC dominated areas. Even then, 1993 figure showed that H.P. (72.48%), Rajasthan (72.02%), M.P. (72.48%), UP (78.25%) Andhra Pradesh (79.46%) had more than 20% of population not covered by middle sections even within convenient walking distance.

As the Fourth, Fifth and Sixth AIES data revealed, the proportion of population living in **ST dominated areas** served by **middle schools/sections within habitation** were 13.35%, 18.71% and 21.56% for the entire country. Corresponding figures for population served by middle sections within walking distance of three kilometres were 53.77%, 63.86%, and 68.95% respectively, for three AIESs. Those figures suggested that expansion of upper-primary education in ST dominated areas had been impressive, considering the remoteness and hostility of terrain of most ST dominated areas and dispersed nature of such habitations. Some of the states like Andhra Pradesh (3.58%), Bihar (6.6%), Tamil Nadu (6.72%), MP (6.78%) and Orissa (8.82%) had very low coverage in 1986. In 1993 noticeable improvements were achieved in some of these states. Even then overwhelming majority of population in the ST dominated areas had not been served by middle sections within walking distance. In 1993, Gujarat (52.04%), Kerala (39.58%), Nagaland (47.76%) were the high achievers in this field. Still there were large proportions of populations left to be covered by middle sections within habitation.

Increment in proportion of population in **ST dominated areas** served by **middle sections within walking distance** had been commendable since 1978. Even the states with very low proportion of population having middle sections within habitations, had considerable proportion of population served within convenient walking distance. According to 1978 data (see Table No.3.4), A.P. (28.54%) and Tamil Nadu (24.48%) had lowest proportion of population served by middle schools within walking distance. Other than these two states all the major states had more than 50% of their population in ST dominated areas with access to upper primary schools within convenient walking distance. 1986 data showed (see Table No.3.5) that Tamil Nadu (31.84%), Andhra Pradesh (52.09%) had improved their school network considerably to provide middle school facilities to more people within walking distance in ST dominated areas. 1993 data showed, barring a few states like A.P. (50.27%), Arunanchal Pradesh (52.89%), and M.P. (58.99%) etc. All the other

had at least more than 60% of the population in St dominated areas with access to middle section within walking distance.

Glaring regional discrimination exists in provision of middle school facilities in the regions predominantly inhabited by SC/ST communities. Disparity is starker in case of expansion of the facilities within the habitation. While considering access within convenient walking distance the grim picture turns brighter. This may be due to the fact that though SC/ST dominated habitations are discriminated against, settlements in surrounding areas offer better educational facilities and many students commute to neighbouring villages to attend schools. This phenomenon is more common in case of SC dominated areas as their habitations are intermingled with those of the privileged classes. On the contrary, in the ST dominated areas inhospitable terrain and isolation of individual hamlets make it difficult for the students to attend schools in the vicinity.

3.2.3. Regional Disparity in Availability of School Facilities

Level of regional disparity across the states with regard to availability of school facilities at primary and middle stage in rural India has gradually decreased since Fourth AIES in 1978. For all three time points disparity, was much higher for the middle stage than for the primary stage. That observation was the suggestive of the fact that more ubiquitous distribution of primary schools exists across states. Level of regional disparity was staggeringly high for the proportion of population served by middle schools within habitation e.g. 1993 that figure was 43.29%, while corresponding figure for primary stage was 17.40% .Regional disparity was much lower in case of population served by middle schools within walking distance (11.63% in 1993), corresponding figure for primary section was 6.8% It was due to the fact that some of the BIMARU states along with A.P. and northeastern states like Tripura, Arunanchal Pradesh, and hill states of Sikkim, H.P. had very less proportion of population served by middle schools within habitation. Even a sizeable proportion of population still did not have middle schools/sections within easy access from home. The gap between these states and the states, which have well expanded school facility network, was very wide. This resulted in high disparity at the middle level, whereas primary school facilities are distributed across space more or less equitably.

Data for the year 1993 showed (see Table No.3.6)that low level of disparity had been achieved in expansion of school facilities within habitation and within walking distance both, at the primary stage (figures are 17.40% and 6.8% respectively). The figure in the later category for middle schools was also low (11.63%) Achievement of this low level of disparity was mainly due to consistent effort by Government agencies to spread schooling facilities in every corner of the nation. This effort had achieved commendable success, as low level in the magnitude of disparity could only be attained with the establishment of schools in every remote corner of the country. It was an established fact that level of regional disparity was higher in case of provision of middle schools than that of primary schools. If provision of schooling walking distance was considered, that stark contrast was diluted to a certain extent. (6.8% in primary and 11.63% in middle stages in 1993). The explanation of this fallacious finding lies in the performance of states with poor educational infrastructure. At the primary level there were very few states with dismally low level of expansion of formal schooling network to rural areas. At the middle stage, the states which had very low percentage of population served by middle school from within the habitation, actually had fare share of population covered by middle schools within walking distance, at par with states having good coverage. So, the inter state disparity declined in case of availability of middle schools within convenient walking distance had became almost comparable with that of the primary stage.

Magnitude of regional disparity in case availability of schooling facilities in SC/ST dominated areas had been much higher compared to all areas. It was highest in case of availability of school with middle sections within habitation. That might be due to appalling situation prevailing in some of the states to provide middle school facilities to the SC/ST dominated areas, sometimes even within walking distance. So, a wide gap exists between these states and the states with better infrastructure facilities resulting in high level of regional disparity.

In case of SC/ST dominated areas, though the coverage was better at the primary stage, as proportion of population not having primary section within walking distance was less compared to middle stage, near-parity situation existed in the level of regional disparity at both the stages. This was suggestive of the fact that discrimination against SC/ST dominated areas pervades both stages of elementary

education almost equitably. So, it can be inferred that restricted coverage of basic schools in these areas are not so much due to pecuniary or logistic constraints but due to inequities deep rooted in the hierarchical societal structure.

Regional disparity in ST dominated areas was more pronounced as compared to SC dominated areas. That might be due to the fact that the states where STs form local majority, especially in the northeast, had much better coverage in terms of institutionalized education. In some of the states like Gujarat, Karnataka, as well as in UTs like Dadra & Nagar Haveli, Daman & Diu, Andaman and Nicober Islands, Lakshadweep had excellent provision of schooling facilities in those areas. But, in places where STs were penetrated minorities i.e. their hamlets were located in pockets, surrounded by non-scheduled population had poor institutionalised education facilities. That had led to the prevalence of more disparity among ST dominated areas across states. In case of the areas dominated by SC communities, situation in all the states are almost the same as they are everywhere immersed in the seas of majority communities and discriminated against almost everywhere. This makes the interstate disparity starker in relation to ST dominated areas than that with SC dominated areas.

It is clear from the aforesaid analysis is that; so far the majority of Indian rural population has been provided the access elementary educational institutions in physical terms. But the question of access is culturally defined. Moreover, establishment of schools do not ensure effective delivery of instructional facilities. So, the question of 'schooling' takes precedence over mere availability of 'schools'. It is equally important to ensure effective and smooth functioning of school in order to unversalise elementary education in rural areas.

3.3 Quality of Elementary Education in Rural India

The term 'quality', in the context of elementary school education, is generic in nature, and it has further ramifications. In the existing literature, the 'quality' is equated with conditions of learning within the premises of educational institutions. Conditions of learning have to be viewed in complex context, where innumerable factors belonging to and beyond the reach of education sector, are interwoven. These conditions may pertain to physical facilities, as well as, instructional and pedagogic infrastructure available in schools and other factors like classroom environment, teacher-student and parent-teacher relationship etc. The last group of factors is

intangible in nature and more abstract. So measurement and assessment of these factors throw formidable challenges to the researchers.

The mere existence of instructional and physical infrastructure and teaching-learning materials do not ensure their judicious and optimum utilisation. The dictums that can be established from the existing literature, clearly state that, schooling effectiveness measured in terms of cognitive achievement of the learners, as well as enrollment and retention of the students, is more closely associated with utilisation of existing infrastructure (Yadava and Bhardwaj, 2000, p.49). As the indicators associated with purposeful utilisation of existing facilities are not easily quantifiable, data for these are not available at the macro level.

Educational infrastructure can be broadly divided into two categories – physical infrastructure and instructional infrastructure. Physical infrastructure can be further such divided into two parts - availability buildings and rooms; and availability of ancillary facilities like drinking water, toilet, lavatory, etc. Instructional infrastructure is also comprised of two important components, availability of teachers and supply of teaching - learning materials.

During post NPE (1986) period considerable emphasis was laid on improvement of schooling quality and was reiterated in revised NPE (1992). So, late eighties and nineties had seen significant betterment of physical and instructional infrastructure at the elementary level in rural India. Nevertheless, scope is still left for lot more improvement as regional disparity still exists in terms of quality of educational facilities in rural India. It is against this context existing data should be assessed to arrive at meaningful conclusions which can be instrumental in eradicating the malady.

3.3.1 Availability of Physical Infrastructure and Ancillary Facilities

While discussing the physical infrastructure available in rural elementary schools, the question that surfaces is that: what constitutes a school in physical terms? According to Heyneman, "At the minimum, a school is acceptable, if it can provide a place for students to work without danger of roof collapsing, if neither winter wind nor rain sends students into a corner for protection, if there is place for each to sit down, a place to write, material to write with and a certain minimal number of maps, charts and reference books from which to derive information" (Varghese, 1995, p. 98). If this is the definition of minimum level, then a large number of schools in rural India

fail to qualify as schools. Nevertheless, the perusal of data available shows that there is improvement in term of building facilities available in rural elementary schools.

According to Fourth AIES (1978) data, 9.17% primary and 1.80% upper primary schools in rural India, had no building. In the fifth AIES, this figure declined to 8.00% at the primary stage but increased marginally to 2.45% in upper primary stage. The corresponding figures in sixth AIES were 4.0% for primary and 2.1% for the upper primary stages. On contrary to this scenario, the number of schools having pucca buildings had increased, from 44.5% in 1978 to 54.5% in 1986 and 64.2% in 1993 at the primary stage. But at the upper-primary stage, the trend was declining, albeit marginally. It was 67.26% in 1978, 66.4% in 1986 and 65.7% in 1993 for the upper primary stage. So, over the years increasing number of schools was being housed in pucca buildings. Meanwhile increment in the number of schools with no buildings suggested that schools were being opened without adequate infrastructure facilities.

As we delve into the question of regional distribution of the various types of schools buildings, the most visible trend that emerged that all the northeastern states were experiencing appalling conditions as only a low proportion of elementary school buildings in these areas were pucca. Most of the buildings are semi-pucca or kuchcha. On the other hand Goa (96.5%), Haryana (92.8%), Punjab (91.6%) and Rajasthan (91.2%) had more than 90% of the primary schools in the rural sector with pucca buildings. At the upper primary level also states like Goa (98.9%), Punjab (89.9%), Rahjasthan (92.4%), and Haryana (95.8%) had 90% or more schools had pucca buildings. On the contrary, the northeastern states like Mizoram (1.9%), Manipur (7.6%), and Assam (9.4%) had staggering low proportion of pucca school buildings.

One interesting revelation noticeable in the data was that none of the northeastern states had significant number of primary schools without building. That proportion was very high in Bihar (11.2%), M.P. (7.0%), J&K (5.6%) primary level. At the upper primary level HP (7.3%), Tripura (9.8%) and MP (4.4%) had considerable proportions of rural schools without any building.

A more insightful analysis of data revealed that the usage of building materials was climate and culture specific. Northeastern states, with tribal predominance, were likely to have buildings where logs, stones and reed are frequently used, which do not necessarily lead to the inference that quality of housing was poor, as they are

categorized as semi-pucca or kuchcha. On the other hand, in the north Indian states, where significant numbers of schools were being run without building, portrayed the grimmer side of the story. Moreover , that there were evidences produced by micro level studies that dilapidated condition of the buildings due to lack of maintenance facilities actually forced the students of all grades to assemble in verandah or even under the tree shades for classes, which were not conducive for concentrated study (Gazdar, 1996, p. 45-46).

Table No. 3. 7

Proportion of Pucca School Buildings (1978)
(Values in Percentages)

States/ Uts	Primary	Middle
A.P.	43.55	67.89
Assam	6.16	12.09
Bihar	22.33	47.03
Gujarat	71.75	93.53
Haryana	86.62	92.59
H.P.	11.22	54.75
J&K	21.73	58.56
Karnataka	72.23	86.93
Kerala	77.78	81.32
Mp	47.96	71.52
Maharastra	60.80	79.18
Manipur	1.42	2.96
Meghalaya	7.16	23.56
Nagaland	1.06	17.92
Orissa	21.17	34.65
Punjab	54.61	69.76
Rajasthan	61.35	84.26
Sikkim	56.36	100.00
Tamilnadu	70.32	74.93
Tripura	1.39	1.32
U.P.	68.57	78.58
West Bengal	14.21	40.14
A&N Island	53.85	82.76
Arunachal Prd.	6.92	28.16
Chandigarh	54.55	57.14
Dadra & N. Haveli	44.78	100.00
Delhi	53.22	46.94
Goa, Daman & Diu	84.55	83.33
Lakshadweep	64.71	80.00
Mizoram	0.44	0.00
Pondicherry	57.42	58.49
India	44.47	68.39

Source: Calculated from Fourth AIES (1978).

Even where school buildings were available, a part of was put to some other use virtually disallowing the rooms to be used for instructional purposes (Gazdar, 1996, p. 64). Operation Black Board Scheme initiated in 1987-88, professed objective of providing a building comprising at least two reasonably large all weather rooms for all primary schools. That lofty goal remained on paper as ground reality showed a different picture.

Table No.3.8
Proportion of Pucca School Buildings
(Values in Percentages)

States/ Uts	Primary (1986)	Middle (1986)	Primary (1993)	Middle (1993)
A.P.	67.24	77.62	75.3	74.6
Arunachal Pradesh	13.10	39.08	25.8	41.8
Assam	7.16	7.04	13.9	9.4
Bihar	31.90	33.65	63.1	41.8
Goa	84.88	95.58	96.5	98.9
Gujarat	87.59	95.53	81.3	90.8
Haryana	85.63	92.21	92.8	95.8
H.P.	23.84	23.04	34.1	33.7
J&K	28.47	37.32	48.7	60.2
Karnataka	84.83	91.25	38.7	88.3
Kerala	68.70	67.01	77.6	74.4
Mp	51.87	61.35	54.6	58.4
Maharastra	64.32	73.26	69	70.9
Manipur	1.71	3.32	9	7.6
Meghalaya	6.80	19.10	20.7	23
Mizoram	0.00	0.00	0.9	1.9
Nagaland	6.54	30.59	3.6	23.5
Orissa	47.49	42.40	58.4	41
Punjab	84.91	91.97	91.6	89.9
Rajasthan	77.22	83.54	91.2	92.4
Sikkim	29.40	48.76	17.4	23.7
Tamilnadu	79.32	78.51	62.2	57.7
Tripura	2.51	1.50	16.7	5.5
U.P.	72.39	72.01	89.8	75.2
West Bengal	21.42	45.02	33.6	40.5
A&N Island	56.40	91.67	54.7	73.7
Chandigarh	77.78	100.00	85.7	100
Dadra & N.Haveli	61.16	100.00	88.6	100
Daman & Diu	100.00	100.00	100	100
Delhi	63.75	16.67	45.7	49.2
Lakshadweep	100.00	100.00	100	100
Pondicherry	60.09	59.18	51.9	63.5
India	54.49	66.38	64.2	65.7

Source: Calculated from Fifth (1986) & Sixth (1993) AIES

According to Sixth AIES (1993) (see Table No.3.8), data showed that, on an average, there were 2.03 rooms available at the primary and 4.44 rooms at the upper primary schools for instructional purposes. At primary level, where according to set norms at least two rooms should be made available for instructional purposes states like Bihar (1.23), Assam (1.35), Andhra Pradesh (1.60), Meghalaya (1.7) had figures much less than that. At the upper primary level HP (2.77) M.P. (3.18), UP (3.48), Bihar (3.57), Orissa (3.17) had figures, which were below the established norm. On the other hand, average number of rooms devoted for instructional purposes are 5.86 at primary and 12.07 at the upper primary level in Kerala.

Availability of ancilliary amenities like drinking water, separate toilet and lavatory for boys and girls, etc. had important roles to play in creation of healthy ambience in schools and to make it more attractive to parents and students alike. Parental opinion in this context was of utmost importance as the decision to send and keep the children in school was taken by the parents only. Availability of ancillary facilities like drinking water, urinal and lavatory in primary schools had increased gradually during the period 1986 to 1997, as revealed by Yadava, and Bhardwaj (2000, p. 97). But the situation was far from satisfactory in rural India, as only 50.22% schools in primary and 65.35% schools at upper primary level had access to drinking water at the primary level. Corresponding figures for availability of urinals were 20.57% at primary and 47.1% at the upper primary stage while the same were 9.14% and 29.93% respectively in case of separate urinals for girls. Only 10.20% primary and 25.84% upper primary rural schools had lavatory for students and 4.19% and 11.97% have the same separately for girls.

In order to draw a holistic picture of the physical infrastructure and ancillary facilities available at the state level, composite indices had been calculated by ranking the states and summing up their ranks following the norm that the best performing state had the highest rank and had the highest composite score. The trend that emerged was far from consistent. It can be broadly stated that among the UTs, Chandigarh, Delhi, Lakshwadeep, Pondicherry had better ranking. Among the major states Kerala along with Punjab and Haryana had better physical amenities available. Economically developed states like Maharashtra (Rank 14 at Primary and 17 at upper primary stage in 1993), Tamil Nadu (Rank 13 and 14) and Goa (Rank 12 and 19) had moderate level of infrastructure development.

They were almost at par with UP and Sikkim, two most neglected states in terms of educational development. On the other hand another economically developed state Karnataka (Rank 31 and 24 in both stages) had performed poorly at almost all the time points. Among the other states which had failed to secure desirable schooling conditions in terms of physical infrastructure were mainly the northeastern states, especially Meghalaya and Tripura, along with M.P. etc. Orissa, Nagaland and Assam had poor ranking but had improved considerably in recent years

Though the availability of physical infrastructure and ancillary facilities had improved in recent year access to these facilities fluctuate from one locality to the other, which has considerable negative impact on enrolment and retention as well as cognitive achievement level among the students. More purposeful utilisation of existing facilities and expansion of facilities in backward areas should be carried out simultaneously with more equitable provision of facilities to ensure provision of healthy learning conditions in rural elementary schools.

3.3.2 Availability Of Instructional Infrastructure In Rural Elementary Schools

The most important component of instructional infrastructure is the availability of teacher. The quality of instruction imparted in the class is by and large dependent on professional competence of the teachers. But in Indian context the issue of proficiency of the teacher takes a backseat due to preoccupation with a more rudimentary problem of availability of the teachers. Still there was preponderance of elementary schools with zero or single teacher, in sharp contrast to the explicitly declared strategy in Operation Black Board. The scheme reiterated the need for at least two teachers in every primary school, if possible one of them woman. Department of Education made optimistic claims that 99.9% of the primary schools actually had the number of teachers as par the stated norm, but in reality the situation is quite contrary to what has been reported (Gazdar, 1996, p. 65).

Efficiency of the teacher is dependent on the size of class. A substantial increase in the mere number of teachers can improve the teaching performance of the individual teachers. It had been observed that teaching quality was particularly low in the single teacher schools (Dreze and Sen, 1995, p.126). Pupil Teachers Ratio is the most widely referred indicator for measurement of the quality of teaching in the school. Increase in pupil-teacher ratio over the period of 1978 to 1986, suggested that the number of teachers recruited could not keep pace with expanding enrolment rate.

Table No.3.9

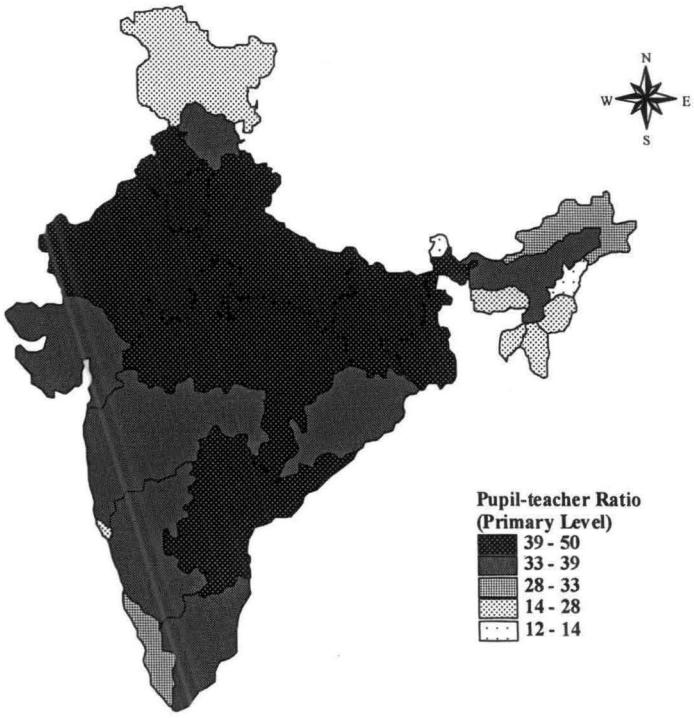
Composite Indices of Physical Amenities Available in Rural Elementary School

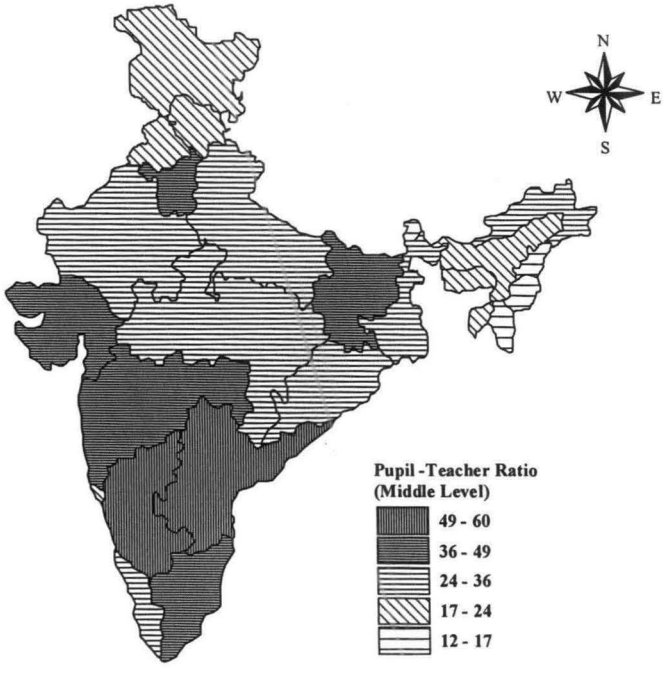
Ranks	STATES/ Uts	Primary (1993)	STATES/ Uts	Upper Primary (1993)	STATES/ Uts	Primary (1986)	States /Uts	Upper Primary (1986)	States /Uts	Primary (1978)	States /Uts	Upper Primary (1978)
1	CHANDIGARH	209	LAKSHADWEEP	185	DELHI	173	CHANDIGARH	177	KERALA	88	A&N ISLAND	83
2	LAKSHADWEEP	205	KERALA	164	KERALA	164	A&N ISLAND	175	HARYANA	81	DNH	76
3	D&D	200	A&N ISLAND	161	PUNJAB	159	DNH	169	LAKSHADWEEP	81	HARYANA	74
4	DELHI	191	DNH	153	D&D	158	PUNJAB	166	DELHI	77	CHANDIGARH	70
5	KERALA	188	HARYANA	153	A&N ISLAND	156	PONDICHERRY	152	DNH	73	LAKSHADWEEP	68
6	PONDICHERRY	182	PONDICHERRY	151	HARYANA	155	DELHI	151	TAMILNADU	71	KERALA	67
7	PUNJAB	174	DELHI	145	PONDICHERRY	155	HARYANA	149	PUNJAB	69	GOA, D&D	65
8	A&N ISLAND	172	PUNJAB	140	LAKSHADWEEP	150	WEST BENGAL	148	A&N ISLAND	68	GUJARAT	62
9	HARYANA	169	D&D	136	DNH	140	KERALA	139	GUJARAT	64	DELHI	61
10	RAJASTHAN	141	CHANDIGARH	134	TAMILNADU	138	D&D	129	CHANDIGARH	62	ARP	56
11	MIZORAM	139	WEST BENGAL	131	GOA	115	TAMILNADU	129	GOA, D&D	58	ASSAM	56
12	GOA	137	RAJASTHAN	115	GUJARAT	111	GOA	113	PONDICHERRY	58	KARNATAKA	49
13	TAMILNADU	137	GUJARAT	111	MIZORAM	111	GUJARAT	96	RAJASTHAN	58	AP	48
14	MAHARASTRA	129	TAMILNADU	102	CHANDIGARH	107	RAJASTHAN	94	UP	54	BIHAR	45
15	UP	124	SIKKIM	101	ARP	105	ARP	93	WEST BENGAL	48	PUNJAB	45
16	SIKKIM	117	UP	100	HP	91	UP	89	MAHARASTRA	47	RAJASTHAN	44
17	DNH	104	MAHARASTRA	90	SIKKIM	90	LAKSHADWEEP	85	ORISSA	40	MAHARASTRA	41
18	HP	97	MANIPUR	86	MAHARASTRA	84	SIKKIM	84	ASSAM	39	TAMILNADU	41
19	NAGALAND	96	GOA	85	RAJASTHAN	82	NAGALAND	83	ARP	38	SIKKIM	39
20	WEST BENGAL	88	MIZORAM	83	UP	79	MIZORAM	77	KARNATAKA	38	WEST BENGAL	39
21	GUJARAT	85	NAGALAND	83	NAGALAND	78	MANIPUR	74	AP	34	HP	38
22	MANIPUR	84	ARP	65	WEST BENGAL	78	MEGHALAYA	72	J&K	33	MP	37
23	ARP	79	AP	60	TRIPURA	73	BIHAR	66	SIKKIM	32	PONDICHERRY	37
24	AP	74	KARNATAKA	60	MANIPUR	71	AP	65	HP	31	MIZORAM	36
25	MP	72	BIHAR	58	AP	66	ASSAM	64	MIZORAM	31	UP	36
26	ORISSA	63	HP	56	KARNATAKA	59	MAHARASTRA	61	MP	29	J&K	35
27	TRIPURA	61	MP	56	MP	46	TRIPURA	57	BIHAR	24	ORISSA	33
28	BIHAR	57	MEGHALAYA	46	BIHAR	39	KARNATAKA	56	NAGALAND	21	MANIPUR	30
29	J&K	37	TRIPURA	43	MEGHALAYA	36	HP	52	TRIPURA	19	MEGHALAYA	28
30	MEGHALAYA	31	J&K	40	ORISSA	35	MP	48	MEGHALAYA	14	NAGALAND	25
31	KARNATAKA	30	ORISSA	40	ASSAM	32	ORISSA	36	MANIPUR	8	TRIPURA	24

Source: Calculated from Fourth, Fifth and Sixth AIES.

Map No.3.4

Regional Disparity in Availability of Teachers in Elementary Schools in Rural India (1993)





(Maps Not to Scale)

Between the Fifth and Sixth Survey, though the ratio had declined from 46 to 40 for the primary stage, it had increased from 29 to 35 at the upper primary level. That

Table No.3. 10

Pupil-Teacher Ratio

	Primary(1986)	Middle(1986)	Primary(1993)	Upper Primary(1993)
A.P.	56	28	49.8	49.24
Arunachal Pradesh	34	16	27.6	23.80
Assam	37	29	35.3	19.67
Bihar	58	23	50.2	43.60
Goa	28	36	20.2	17.22
Gujarat	64	18	33.3	38.88
Haryana	54	37	48.9	41.88
H.P.	38	29	36.2	20.00
J&K	35	20	24.9	21.80
Karnataka	49	42	38.0	59.65
Kerala	40	29	31.0	30.88
Maharastra	46	28	33.4	36.08
Manipur	16	14	14.3	14.36
Meghalaya	35	20	23.4	18.56
Mizoram	29	12	24.6	11.83
M.P.	39	31	42.9	31.84
Nagaland	19	13	11.6	12.40
Orissa	38	28	37.4	30.86
Punjab	39	37	43.5	22.30
Rajasthan	58	18	39.0	29.92
Sikkim	15	17	11.5	14.56
Tamilnadu	58	38	37.9	43.19
Tripura	36	27	22.8	21.43
U.P.	42	36	44.3	28.88
West Bengal	41	39	45.3	33.66
A&N Island	31	25	19.4	19.81
Chandigarh	36	21	37.2	17.50
Daman & Diu	40	34	28.5	38.44
Delhi	34	35	43.9	30.38
Dadra &N.Haveli	36	27	40.5	33.13
Lakshadweep	27	17	20.5	22.19
Pondicherry	34	29	26.9	35.08
India	**46**	**29**	**40.84**	**35.84**
C.V.	33.47	33.97	35.11	43.34

Source: Fifth (1986) and Sixth AIES.

decline at the primary stage was in congruence with the initiatives taken under operation Black Board and District primary Education Programme. Under the auspices of these schemes teacher recruitment process and availability of fund had increased considerably (Yadav and Bhardwaj, 2000, p. 47).

Table No.3.11

Composite Indices of Instructional Facilities Available in Rural Elementary Schools

Ranks	STATES/ Uts	Primary (1993)	STATES/ Uts	Upper Primary (1993)	STATES/ Uts	Primary (1978)	STATES/ Uts	Upper Primary (1978)
1	GOA	109	DELHI	92	CHANDIGARH	86	A&N ISLAND	86
2	DAMAN & DIU	103	GOA	92	A&N ISLAND	72	DADRA & NH	72
3	DADRA & NH	83	HARYANA	88	HP	63	CHANDIGARH	63
4	HARYANA	82	A&N ISLAND	87	MIZORAM	61	HARYANA	61
5	MAHARASTRA	82	SIKKIM	84	KERALA	60	HP	60
6	A&N ISLAND	81	MAHARASTRA	79	TRIPURA	58	MAHARASTRA	58
7	DELHI	79	TAMILNADU	75	TAMILNADU	57	KARNATAKA	57
8	LAKSHADWEEP	77	DADRA, N.HAVELI	74	MAHARASTRA	57	TAMILNADU	57
9	HP	74	HP	74	J&K	57	PONDICHERRY	57
10	MANIPUR	71	KARNATAKA	71	HARYANA	55	TRIPURA	55
11	SIKKIM	70	WEST BENGAL	71	SIKKIM	52	J&K	52
12	KARNATAKA	68	MANIPUR	70	DNH	52	MP	52
13	TAMILNADU	68	MEGHALAYA	70	PONDICHERRY	49	ARP	49
14	J&K	61	ASSAM	66	GOA, D&D	48	GOA, D&D	48
15	PONDICHERRY	61	DAMAN & DIU	66	WEST BENGAL	47	GUJARAT	47
16	GUJARAT	59	MP	66	ORISSA	47	KERALA	47
17	KERALA	59	PUNJAB	64	KARNATAKA	46	RAJASTHAN	46
18	RAJASTHAN	59	ARP	63	GUJARAT	46	MEGHALAYA	46
19	MEGHALAYA	57	KERALA	63	MP	45	ORISSA	45
20	MIZORAM	57	RAJASTHAN	63	DELHI	44	SIKKIM	44
21	MP	55	PONDICHERRY	60	RAJASTHAN	43	WEST BENGAL	43
22	ARP	50	ORISSA	59	NAGALAND	41	MIZORAM	41
23	NAGALAND	50	GUJARAT	57	ARP	41	AP	41
24	ORISSA	50	J&K	57	MANIPUR	39	PUNJAB	39
25	CHANDIGARH	48	AP	56	UP	38	ASSAM	38
26	ASSAM	46	LAKSHADWEEP	56	MEGHALAYA	38	NAGALAND	38
27	PUNJAB	46	UP	54	LAKSHADWEEP	35	MANIPUR	35
28	TRIPURA	42	TRIPURA	53	ASSAM	34	LAKSHADWEEP	34
29	AP	29	BIHAR	51	PUNJAB	30	BIHAR	30
30	WEST BENGAL	27	MIZORAM	49	BIHAR	27	UP	27
31	UP	17	NAGALAND	49	AP	20	DELHI	20

Source: Calculated from Fourth, Fifth and Sixth AIES

In the year 1986, most of the states and UTs, had experienced a spurt in terms of class size and the trend was more evident in case of educationally backward states. At the primary stage, states like Sikkim (15) Manipur (16), Nagaland (19), and Mizoram and among UTs like Lakshawdeep and Andaman and Nicobar Islands (31) had low values of the ratio. It was very high in case of Andhra Pradesh (56), Bihar (58), Rajasthan (58), and Gujarat (64). All these states experienced increase in class size from the previous year. On the other hand, in case of some educationally developed states, the value had plummeted and settled somewhere around the normative value of 40 e.g. Kerala (50.27 to 40.00), Karnataka (60.98 to 44). On the other hand, in case of Tamil Nadu it had increased from 39 to 58. At the upper primary level, values were low for Lakshwadeep and northeasten states. Unlike the primary stage Rajasthan (18) and Gujarat (18) also had small classes at the middle stage. On the other hand, some of the educationally advanced states like Goa (36), Haryana (57), Punjab (37), Tamil Nadu (38), had more incidence of large classes along with states like U.P. (36) and W.B. (39) which are known for their jaded performance in the education sector.

In the year 1993, some states exhibited signs of improvement in quqlity of education in the form declining of Pupil Teacher Ratio. Sikkim (11.5) had the lowest value among the states in India. Other northeastern states also had values much lower than national average. Some of the Uts like Andaman and Nicobar Island (19.9), Lakshwadeep (20.5), Pondicherry (26.4), had low pupil –teacher in ratio in rural areas. Goa (20.2) also had value much lower than normative value. In case of Kerala there was perceptible sign of improvement decline in Pupil Teacher Ratio, from 40 in 1986 to 31 in 1993. Gujarat (64 to 33.3) and Rajasthan (58 to 39) had also displayed encouraging performance. Some of the states marked by poor conditions in the field of education, like U.P. (44.3), West Bengal (45.3), Haryana (48.9), Andhra Pradesh (49.8) and Bihar (50.2) continued to have disproportionately large size of classes. At the upper primary level, northeastern states along with Goa (17.5) and H.P. (20.00) had small classes. Most significant decline was visible in case of Punjab (37 to 23.8) and Goa (36 to 17) between 1986 and 1993, while for Kerala the value remained static (30.88). States like Haryana (43), Tamil Nadu (43.19), Bihar (43.6), Andhra Pradesh (49.24), and Karnataka (59.65) had more frequent incidences of large classes in rural areas.

Regional disparity measured in terms of CV showed that the value had increased consistently between 1978 and 1993. This may be due to the fact that in

1978 situation was homogenous among states as the level of enrolment was low. Since then, enrolment had increased and pupil-teacher ratio had also increased in almost all states. This increase was more pronounced in case of states with low literacy level. In educationally developed states, number of teachers increased more or less in concurrence with the number of students (Yadava and Bhardwaj, 2000, p. 45). So, the disparity among states kept on increasing as the underdeveloped states failed to arrest their ever increasing pupil teacher ratio. At the upper primary stage the scenario was quite different as the value of C.V. declined from 37.50% in 1978 to 31.27% in 1986 and again surged to reach 39.7%. This decline between Fourth and Fifth survey areas accompanied by increase in pupil-teacher ratio across all state, which made the situation similar for almost all states, resulting in a decline in the level of regional disparity. In 1993, the ratio declined for some of the educationally developed states and level of regional disparity increased again.

Non-availability of teachers and large size of classes are more tangible and rudimentary problems, sincere planning intervention can easily ameliorate the situation. More subtle but insidious malady that has plagued the system was insincerity and lack of creativity and motivation on part of the teachers and school administration. Teachers' absenteeism and their apathy to hold class in an orderly and regular manner was responsible for the plight of rural elementary schools (Gazdar, 1996, p. 65-66). Purposeful utilisation of the instructional inputs available was dependent on the ingenuity and motivation level of the teachers in concern. That is why, with the same level of infrastructure available, performance of the states varied due to specificity in the quality of manpower available.

Another most important aspect of instructional facility was the proportion of women among teachers. In order to ensure enrolment and retention of girl children in the fold of formal education, it was mandatory to have at least one women teacher in the school. Orthodox minded parents do not want their daughters to learn from male teachers, and that is more prominent at the upper primary stage as the gender stereotypes get entrenched more firmly after attainment of puberty.

According to the set norms at least fifty percent of the teachers should be women. In reality situation was far from satisfactory. Fifth AIES data revealed that only 20.94% teachers were women in the primary stage. At the upper primary stage it was 23.97%. Even there was no significant change in the sixth AIES as the figures were 24.00% and 23.01% for the corresponding stages. That figures was especially

low where women are discriminated against in the field of education like UP, Rajasthan, MP, and Bihar. On the other hand, in Kerala (66.46% for primary and 62.71% at upper primary stage) and Goa (60.17% and 58.53%) it was very high. Studies had revealed that female teachers work in larger settlements and dearth of their presence in remote areas impede the expansion of female education in rural area (Gazdar, 1996, p. 68-69). Reluctance to send daughter to male teachers start as early as at two age of seven to eight years. Presence of female teachers in the school not only boost up confidence of the parents to send their daughter to school but also provided the young girls a role model in the school as far as school as an agency for socialisation is concerned. One of the possible solutions to that problem could be offered by providing residential quarter facilities for women within the habitation. That would have ruled out the problems of commuting long distances, which many people did not find safe enough for women (MHRD and UNESCO, 2001, p.65).

In order to achieve universal enrolment and retention, recognition of the necessity of well-equipped elementary schools is axiomatic. Among the necessary instructional inputs, textbooks are most important. A large section of students in the rural primary and upper primary schools come from impoverished households and in many cases the parents are reluctant to pay the attention to their children's performance in schools due to other pre-occupations. So, it is customary on the part of the Government to ensure the supply of textbooks to every child, free of cost. This requirement had been addressed with empathy by the administration and initiatives had been mobilised to cover all schools in the rural areas. Sincere efforts had been made to establish Textbook Banks and libraries in every primary and upper primary school. According to Sixth AIES data only 26.6% in primary and 35.8% middle school had these facilities. The range varied from 1.14% in Bihar to 85.11% in Haryana. Among the UTs Lakshwadeep and Pondicherry had totally denied of the facility at the primary stage. Some of the educationally backward states like UP (6.61%), Orissa (2.81%), AP (8.7%), Jammu and Kashmir (2.61%) had low coverage under this scheme. At the upper primary stage also states like Bihar (8.9%), Jammu and Kashmir (6.6%), and Tripura (5.8%) had very low coverage. Moreover, in order to make class room interaction more effective it is imperative that the textbooks contain the language comprehendible for the learners. The teachers also speak the indigenous dialect as at this level linguistic abilities of the learners are very restricted (Rajput, 1994,p.118).

Only 40.87% primary and 58.2% upper primary schools had libraries at the national level. While 100% schools had libraries in Lakshadweep at the primary stage in U.P. no school had library facility at the primary stage. Figures were abysmally low in northeast as well as Assam (21.10%), Tripura (17.87%), M.P.(24.18%) and Bihar (35.03%). At the upper primary level figures are low for northeast as except Arunanchal Pradesh and for Orissa (20.1%), M.P. (32.7%) and Rajasthan (36.2%).

One important observation worth special note, that some of the educationally developed states like Kerala, Tamilnadu etc. (see Table No.3.11) did not have best coverage under these programmes but it would not be wrong to say that the educationally backward states are the ones which need impetus in terms of policy intervention to get rid of their burden of inertia. Quality of schooling in the rural areas is plagued with various maladies. Inadequate number of qualified teachers, along with large size of classes hinders fullest utilisation of teacher's professional competence. On the other hand, the factors like teacher's absenteeism, lack of commitment to the duty, etc. lead to underutilization and indiscreet utilisation of existing infrastructure pose greater threat to our education system. These factors are not quantifiable at the macro level but there are enough evidences supplied by schools may not necessarily be well managed and impart quality education to the children.

3.3 Conclusions

The conclusions that can be arrived at from the ongoing discussion are that,

- Proportion of rural population not having access to primary schools within walking distance is negligible barring a few hilly states like H.P., Sikkim, and Tripura etc. Provision of access to middle school has been proved incommensurate with the desired goal of achievement of UEE in almost all states.
- Discrimination against SCs/STs had two different dimensions. SCs are dispersed minorities (Aggarwala and Sibou, 1996,p.7) as they are intermingled with majorities in all areas, without forming majority in any district. Setting up elementary schools, especially by Government initiatives have tangible political factors involved in them. The majority community having more political clout actually deprives the minorities of their share of facilities (Gazdar, 1996,p.63). As a result of that though the number of habitations dominated by SCs are less but the population of SC dominated areas having access to schools within

walking distance is almost at per with the figure for all areas, as SC children can go to nearly hamlets, dominated by majority communities to attend schools.

- ST populations in most of the states are concentrated in isolated pockets, mostly in hilly and forested areas. Their hamlets are few and far between, interspersed with difficult terrain which makes commuting a daunting task. As the STs from local majorities in place where they inhabit, and have more political clout, consequently have more population served by education institutions within the habitation. As their habitations are dispersed, provision of educational institutions within walking distance became very difficult.
- Not only ST dominated areas but all the hilly states are affected by the same problems as the hamlets in these states are much dispersed, and size of the population is very small and a large section of population in these hill states like H.P., Sikkim. Tripura, Arunanchal Pradesh remains outside the sphere of influence of any formal school. Prevalence of ethnic inequality in the form of discrimination against SC/ST dominated areas in relations to setting up schools, endemic to all Indian states. Even the educationally developed states the Kerala, Tamil Nadu, H.P. are not free from this malaise.
- Prevalence of ethnic inequality in the form of discrimination against SC/ST dominated areas in relation to setting up schools, endemic to all Indian states. Even the educationally developed states the Kerala, Tamil Nadu, H.P. are not free from this malaise.
- Quality of education provided in rural elementary schools falls shorter than the desired standard. Inadequate number of qualified teachers, especially women teachers, has been proved inimical to the expansion of basic education in the rural areas. Dilapidated school buildings, non-availability of rooms for instructional purposes, lack of basic amenities, and dearth of pedagogic materials like books etc. make school environment unattractive to the students and parents. This phenomenon ultimately leads to non-enrolment or early withdrawal of the students from the education system. Development of cognitive competencies of the students is also affected unfavouraby due these problems.
- This argument paves way to another relevant observation. Indicators related to school quality do not always show significantly low values for states which are marked by shorter, than desirable performance. Key to the solution of this enigma

lies in the creative utilisation existing facilities than there were presence. That is possible only when the school administration and reacting community display more accountability to the people.

Finally, it can be stated that after almost 50 years planning intervention, physical access to elementary school age has been ensured. But, by and large, smooth and well-coordinated operation of these schools is yet to be ensured. In order bring about such deep rooted transformation it is not sufficient to ponder over only the questions related to planning strategy but emphasis should be given to the adoption of more reform oriented endeavours make it a compelling political issue.

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CHAPTER –IV

Enrolment and Retention in Elementary Education in Rural India: A State Level Analysis

4.1 Introduction

The progress of elementary education, in the post-independence era has been impressive in certain parts of the country, but by and large it has been incommensurate with the fulfillment of the constitutional obligation of universalisation of elementary education (UEE). To accomplish the goal of UEE, three important thrust areas have been identified, which have to be pursued simultaneously. These are:

1. Universal provision of schooling facilities to every child in 6 to 14 year age group.
2. Ensuring universal enrolment in formal education system.
3. Improvement of the level of retention and checking dropout rates which are still high.

The current chapter focuses on the issues related to enrolment and retention in the education system. Enrolment is definitely the most important and popular indicator of performance of the education system. As far as the Indian scenario is concerned, it reflects only one side of the story, as 'wastage' in form of 'drop-out' and 'stagnation' in the education system is very high. The word 'drop-out' refers to the premature withdrawal of pupils from educational system at a particular stage of instruction, while 'stagnation' or 'repetition' refers to the continuance of the pupil in the same grade for more than a year. Studies reveal that these phenomena are observed more in rural areas than in urban areas. In case of dropouts, wastage is caused directly, while in stagnation the effective duration of course is actually lengthened and in many cases pupil become disinterested in school and leave school early, adding to the pool of wastage. In order to ensure achievement of 'functional literary', it is mandatory to provide at least four years of primary schooling or otherwise the persons once enrolled in school will lapse back into illiteracy (Sen. 1972, p. 75) and resources invested for the education of the person is treated as wastage.

4.2 Secondary Data On Education: Biases And Constraints

The reliability and authenticity of the enrolment statistics in India has been questioned by the researchers in several occasions. The enrolment data based on household surveys, as conducted by NSSO and Census of India are regarded to be more reliable than data published by Government agencies, which are based on enrolment figures collected from the schools (Vaidyanathan and Nair, 2001, p.27). The information provided by schools is believed to have upward bias (Sen A. & Dreze Jean, 1995, p.113). The funds are allocated on the basis of the performance of the schools, of which enrolment is an indicator. The All India Education Surveys (AIES) conducted by NCERT are also based on information provided by schools but are regarded as less biased and detailed account of the enrolment scenario is presented in this data set (Sen, 1967, pp.72-73).

Three important social institutions i.e. family, school and the community, determine the schooling prospects of an individual. Secondary data on education is completely silent on familial and community level issues. Another major handicap in education statistics is that it provides hardly any information regarding the functioning of schools, teacher-students, or teacher-parent relationship etc. At the school level the data regarding physical environment and pedagogic infrastructure is provided but interpersonal relations at the schools, which motivates the child, is not available. To incorporate these aspects one has to rely on primary survey. Since it is not possible to cover large geographical area with this kind of survey, in capacity of an individual or an organisation, these studies are restricted to disaggregated, local levels. Lack of insightful analysis at the macro level has serious negative bearing on the policy formulations at the national or state level.

4.3 Regional Disparities In Elementary School Enrolment

There are vast variations in educational progress across regions and across socio-economic classes. This section presents findings of the analysis of enrolment data of Fourth, Fifth and Sixth All India Educational Survey, conducted in 1978, 1986 and 1993 respectively. The analysis is based on three indicators, age specific enrolment ratio, gross enrolment ratio and net enrolment ratio.

- Age – Specific enrolment ratio for the age-group 6 to below 11 years / 11 to below 14 years, is the percentage of the number of students in the

corresponding age group, to the total population in that age-group, irrespective of the class in which they are going. This is an indicator for the achievement of the goal of UEE. The value of the ratio in most cases is less than 100, but as here we are calculating the ratio for rural areas, if students from urban areas come to rural schools or vice-versa the value may exceed 100% level, but that phenomenon is extremely unusual.

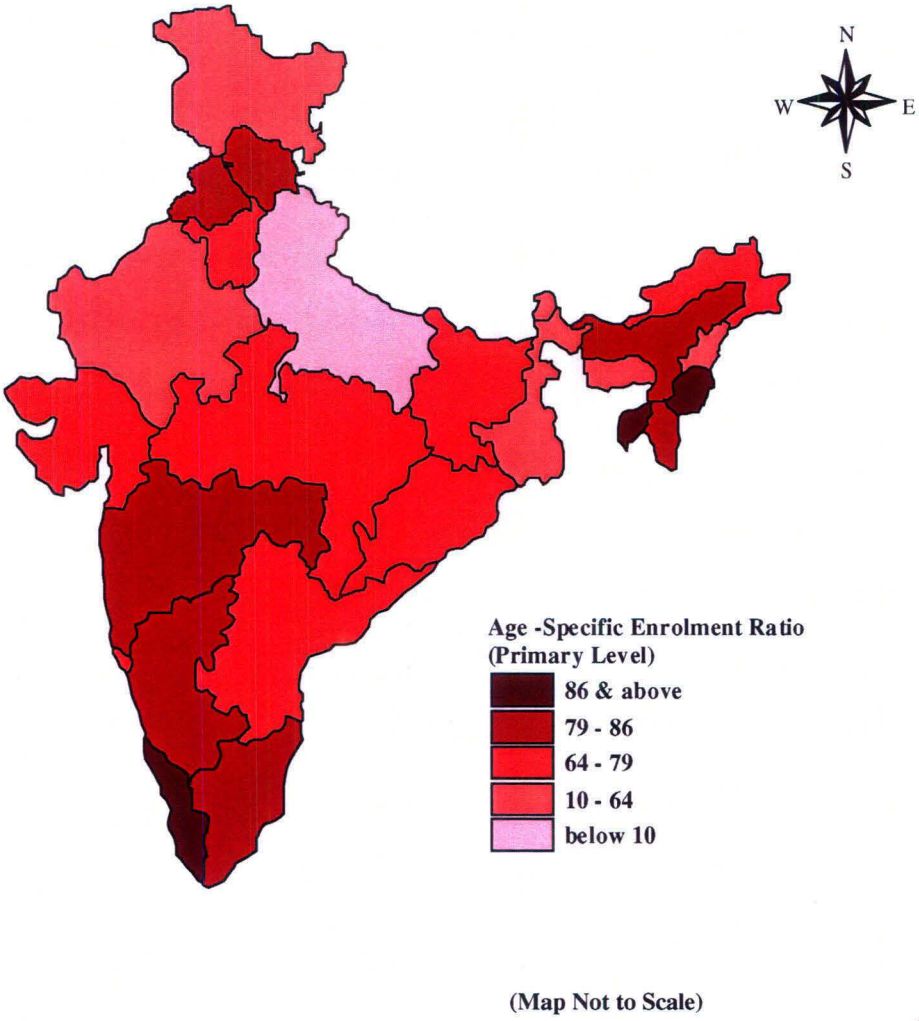
- Gross enrolment ratio, is the percentage of students going to primary upper/ primary schools, in the 6 to below 11 years / 11 to below 14 years age group. This is a crude measurement of enrolment at any stage of education system, as it does not rule out the factors of underage or overage enrolment. As a result of that GER values can exceed 100. If it is well above 100, in most cases is due to inefficiency of the education system
- The net enrolment ratio, is the percentage of enrolment in Classes-I-V/ Classes VI-VIII, in the age group 6 to below 11 years / 11 to below 14 years, to the child population in the same age group. Unlike GER, it does not take into account the overage or underage enrolment. NER can never be more than 100. In ideal case it will be 100 and GER should also be ideally equal to NER. NER is the most precise measurement of the functioning of the education sector, as it implicitly takes the quality criteria into account. Due to scarcity of data calculation of NER is only possible for the Sixth AIES.

4.3.1 Age-Specific Enrolment Ratio

The Fourth AIES data revealed (see Table No.4.1) that **age specific enrolment** ratio for 6 to below 11 years of age group was 61.72%, and for 11 to below 14 years it was 37.09%. In the former age cohort, Punjab (96.46%), Kerala (87.97%) and Tamil Nadu (80.05%) were the frontrunners, along with Delhi (92.65%), Mizoram (88.69%) and Lakshdweep (92.75%). In the age group 11 to below 14 years, in most cases the enrolment ratio had fallen drastically as compared to the lower age- group. Among the states, which fared well even at that stage were, Kerala (74:67%), Punjab (60.42%), along with Goa, Daman & Diu (75.18%), Lakshadweep (79.64%), Delhi (70.2%) etc. Significant decline in the enrolment ratio from the higher to the lower age group was found mostly in the states which had low enrolment ratio prevalent in the former age group. Most

Map No.4.1

Regional Disparity in School Enrolment at Primary Level in Rural India (1993)



(Map Not to Scale)

Table No. 4.1

Age- Specific Enrolment Ratio (1978)

	6 to 11 years age group				11 to 14 years age group			
States/Uts	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	69.23	46.41	58.08	0.24	31.56	13.83	22.84	0.40
Assam	81.38	61.74	71.81	0.19	45.72	30.65	38.46	0.21
Bihar	68.3	34.64	51.98	0.39	37.56	9.56	24.02	0.66
Gujarat	83.26	58.38	71.54	0.24	67.53	40.64	54.76	0.30
Haryana	79.74	41.78	62.13	0.40	58.16	18.98	40.42	0.59
H.P.	90.43	68.4	79.73	0.20	77.2	42.45	60.74	0.37
J & K	70.71	36.33	54.48	0.39	50.96	19.89	36.5	0.49
Karnataka	86.27	68.12	77.48	0.17	49.8	27.77	39.14	0.31
Kerala	88.7	87.22	87.97	0.01	78.4	70.87	74.67	0.07
M.P.	59.47	26.77	43.9	0.44	43.61	12.21	28.7	0.63
Maharastra	71.16	52.18	61.82	0.19	61.39	37.97	50.36	0.28
Manipur	87.49	63.88	75.47	0.22	61.37	33.17	46.66	0.35
Meghalaya	71.63	65.76	68.6	0.06	61.99	48.32	54.88	0.15
Nagaland	72.24	58.26	65.31	0.14	65.55	48.48	57.03	0.18
Orissa	69.97	46.11	58.51	0.25	53.49	26.71	40.89	0.37
Punjab	100.74	91.68	96.46	0.08	70.71	49.7	60.92	0.22
Rajasthan	69.6	19.58	46.48	0.69	42.87	7.1	26.68	0.87
Sikkim	67.72	45.35	56.6	0.24	67.14	33.44	50.38	0.40
Tamilnadu	92.76	80.63	80.05	0.11	56.76	34.17	46	0.28
Tripura	86.64	58.56	72.41	0.27	44.34	23.42	33.18	0.33
U.P.	72.82	30	52.42	0.51	44.72	12.25	29.62	0.64
West Bengal	81.82	59.31	70.86	0.22	46.96	28.34	46.24	0.27
A & N Island	65.67	57.85	61.84	0.08	54.73	37.86	37.78	0.21
ARUNACHAL Pradesh	63.98	30.6	47.57	0.42	47.53	18.48	32.93	0.49
Chandigarh	80.29	76.64	78.6	0.03	64.37	54.24	59.8	0.11
Dadra &N.Haveli	86.52	54.16	70.17	0.31	58.42	27.16	42.41	0.42
Delhi	95.83	88.41	92.65	0.06	82.17	55.53	70.2	0.26
Goa, Daman & Diu	88.95	73.37	81.16	0.14	85.04	65.74	75.18	0.18
Lakshadweep	94.2	91.11	92.75	0.03	92.21	66.67	79.64	0.23
Mizoram	90.26	87.04	88.69	0.03	72.66	57.33	65.05	0.15
Pondicherry	85.76	68.42	77.14	0.16	78.21	54.99	67.87	0.23
India	**85.76**	**47.36**	**61.72**	**0.38**	49.27	23.71	37.09	0.39
C.V.	13.51	34.04	20.72	72.08	25.03	50.16	33.15	53.84

Source : Calculated from Fourth AIES(1978).

staggering examples of such decline were observed in Andhra Pradesh (from 58.08% to 22.84%). Bihar (51.98% to 24.2%), Madhya Pradesh (43.9% to

28.7%), Rajasthan (46.48% to 26.68%). That decline in those states could be attributed to abysmally low age-specific enrolment ratio for girls in this upper age cohort. It can be substantiated by fact that these states had very low girls' enrolment in this age group e.g. Andhra Pradesh (13.83%), Bihar (9.56%), Madhya Pradesh (12.21%), and Rajasthan (7.1%).

The regional pattern did not change significantly even during the Fifth Survey (see Table No.4.2).

Table No.4.2

Age –Specific Enrolment Ratio (1986)

	6To Below 11Yrs Age Group				11To Below 14Yrs Age Group			
States/ Uts	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	86.04	61.73	73.97	0.23	38.91	17.95	28.42	0.39
Arunachal Pradesh	71.38	51.81	61.83	0.20	53.38	34.61	44.22	0.24
Assam	89.1	73.53	81.83	0.14	52.189	39.9	46.4	0.15
Bihar	96.31	49.5	73.04	0.45	42.16	12.69	27.83	0.60
Goa	84.62	77.68	81.18	0.06	81.39	75.7	78.61	0.05
Gujarat	85.7	67.87	76.98	0.16	73.37	48.59	61.43	0.26
Haryana	89.52	69.81	80.4	0.18	71.39	34.08	53.87	0.43
H.P.	83.19	72.88	78.12	0.09	84.78	60.95	73.1	0.22
J&K	86.89	58.38	73.39	0.27	64.1	33.1	49.56	0.38
Karnataka	85.54	69.83	77.77	0.14	59.94	36.86	48.49	0.28
Kerala	87.22	85.7	86.47	0.01	84.58	83.42	84.01	0.01
M.P.	98.33	60.86	80.06	0.34	60.28	19.94	40.39	0.59
Maharastra	91.09	77.63	84.5	0.12	76.33	51.15	64.14	0.25
Manipur	84.62	75.97	80.32	0.08	71.97	51.08	61.7	0.21
Meghalaya	54.5	52.53	53.51	0.02	62.45	56.92	59.68	0.06
Mizoram	89.8	86.66	88.25	0.03	86.41	78.37	82.46	0.07
Nagaland	57.55	59.55	58.53	-0.02	56.67	36.78	46.96	0.24
Orissa	83.94	60.31	72.26	0.22	47.18	25.81	36.62	0.32
Punjab	96.31	92.43	94.5	0.03	70.7	53.13	62.53	0.18
Rajasthan	85.74	35.16	63.41	0.55	57.61	9.96	34.84	0.89
Sikkim	78.37	64.86	71.68	0.13	87.63	75.18	81.63	0.11
Tamilnadu	97.37	93.26	95.48	0.04	98.61	64.84	82.76	0.31
Tripura	126.86	105.4	116.33	0.19	65.18	48.16	56.85	0.18
U.P.	75.29	40.2	58.76	0.38	45.84	19.27	33.45	0.45
West Bengal	84.91	67.12	76.22	0.16	53.71	33.67	43.95	0.26
A&N Island	73.83	65.44	69.63	0.08	72.71	67.39	70.18	0.05
Chandigarh	86.35	86.48	86.41	0.00	61.87	49.11	56.13	0.14
Dadra & N.Haveli	92.48	75.8	84.79	0.15	66.99	44.71	56.64	0.24
D&D	86.95	82.39	84.69	0.04	80.6	63.9	72.46	0.16
Delhi	124.53	115.59	120.43	0.08	107.24	78.84	94.15	0.25
Lakshadweep	96.69	95.2	95.96	0.01	90.1	87.43	88.78	0.02
Pondicherry	97.44	94.13	95.83	0.03	96.63	86.62	92.11	0.09
India	**87.43**	**61.28**	**74.82**	**0.25**	**57.64**	**31.03**	**44.79**	**0.34**
C.V.	16.19	24.99	18.31	94.02	24.60	45.51	32.02	74.63

Source: Calculated from Fifth AIES.

The age –specific enrolment ratio had gone up for both the age groups at the national level. It was 74.82% for 6 to below 11 years and 49.59% for 11 to below 14 yeas age group, during Fifth AIES.

In the former age group there was marginal improvement in the enrolment ratio for the boys (85.76% to 87.43%) between two surveys, but for the girls the increase was impressive (47.36% to 61.28%). Even at the later age group also the improvement was more striking for the girls.

The state level disaggregation showed that Kerala (85.47%), Tamil Nadu (95.48%) and Punjab (94.5%) were ahead of other major Indian states in the former age group. One striking feature was that, at that stage even a state like Bihar (96.31%) had achieved almost universal enrolment for boys, but for girls it remained at 46.6%, which was a marginal decline from previous year's 49.5%. Drastic decline in the enrolment in 11 to below 14 years age group remained the characteristic of educationally backward states e.g. in Bihar (decline from 73.04% to 27.83%), Andhra Pradesh (73.97% to 28.42%), Madhya Pradesh (80.00% to 40.39%). In all cases, the female enrolment had fallen drastically e.g. in Andhra Pradesh it had fallen from 61.73% to 17.95%, Bihar 49.5% to 12.69% and in Madhya Pradesh 60.86% to 19.94% between two stages of elementary education. In case of Rajasthan the girls' enrolment had declined from 35.16% to 9.96% from the higher to the lower age group, but for the boys the decline was from 85.74% to 57.61%. So, in terms of percentage points, it was not very significant. The dismal performance in girls' enrolment was mainly due to regressive traditions in the society which granted lower status to women. The intervention in form of educational planning could not ameliorate situation.

The results of the Sixth AIES registered a decline in age specific enrolment ratio in the lower age group (see TableNo.4.3). It was 74.82% in the 5th Survey became 67.40% in the Sixth AIES. There was marginal increment in the age specific enrolment ratio of 11 to below 14 years age group, as it was 44.79% in Fifth survey became 49.59% in the sixth survey.

The regional pattern remained almost the same, as the states like Andhra Pradesh (63.74%), Bihar (64.31%), and J&K (58.94%), Rajasthan (55.55%) and West Bengal (60.65%) fared badly in the lower age group. Most of these states had shown decline in the enrolment in upper primary stage also, e.g. Bihar (64.31% to 27.23%), Andhra Pradesh (63.74% to 34.28%). Tripura (93.20% to 40.00%) and Orissa (77.07% to 46.61%). Whereas, the states which actually had

Table No .4.3
Age –Specific Enrolment Ratio (1993)

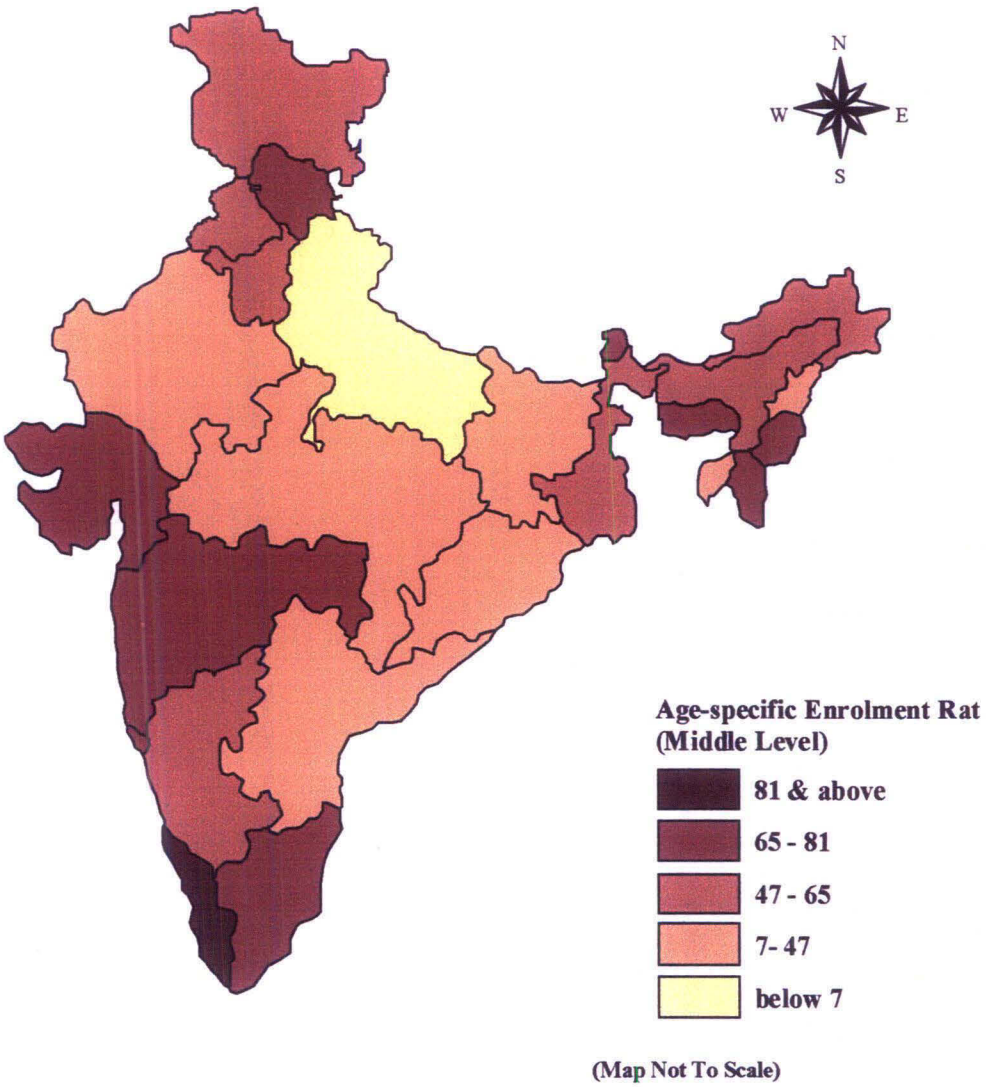
States/ Uts	6 To Below 11 Years Age Group				11 To below 14 Years Age Group			
	Boys	Girls	TOTAL	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	70.87	56.41	63.74	0.145	42.72	25.06	34.28	0.28
Arunachal Pradesh	77.95	62.82	70.63	0.144	73.38	55.46	64.81	0.18
Assam	85.37	72.70	79.12	0.115	57.34	47.74	52.66	0.11
Bihar	80.28	46.60	64.31	0.344	36.50	15.98	27.23	0.41
Goa	76.25	74.05	75.16	0.020	73.66	71.32	72.52	0.02
Gujarat	82.64	69.22	76.13	0.124	80.42	59.53	70.51	0.20
Haryana	78.09	72.48	75.46	0.052	61.58	47.44	55.12	0.16
H.P.	86.37	82.57	84.50	0.034	78.25	72.84	75.61	0.05
J&K	68.95	48.85	58.94	0.212	63.46	41.01	52.75	0.26
Karnataka	87.27	75.39	81.33	0.107	73.30	54.25	63.92	0.19
Kerala	87.85	84.54	86.21	0.029	97.12	94.63	95.89	0.02
M.P.	84.72	67.92	76.52	0.155	59.47	25.37	43.38	0.46
Maharastra	84.53	77.78	81.24	0.061	76.39	61.16	69.10	0.15
Manipur	95.30	88.75	92.07	0.057	80.09	69.13	74.67	0.10
Meghalaya	55.23	56.66	55.94	-0.015	76.78	74.57	75.69	0.02
Mizoram	86.42	76.85	81.64	0.086	86.81	75.11	80.99	0.11
Nagaland	42.97	41.42	42.21	0.020	43.07	42.73	42.91	0.00
Orissa	86.52	67.41	77.07	0.176	56.69	36.40	46.61	0.25
Punjab	86.01	81.93	84.09	0.036	76.30	60.73	68.99	0.15
Rajasthan	73.70	35.49	55.55	0.432	61.43	17.43	40.93	0.67
Sikkim	65.80	56.57	61.18	0.095	77.90	73.52	75.78	0.04
Tamilnadu	87.22	82.20	84.75	0.045	84.21	70.23	77.39	0.13
Tripura	98.42	87.79	93.20	0.093	29.52	51.07	40.00	-0.30
U.P.	58.88	3.64	9.27	1.352	47.04	2.13	6.94	1.46
West Bengal	65.41	55.70	60.65	0.100	64.46	45.99	55.49	0.20
A&N Island	86.76	84.44	85.61	0.021	86.25	84.32	85.33	0.02
Chandigarh	65.86	64.67	65.30	0.012	49.86	47.88	48.96	0.02
Dadra & N.Haveli	80.60	56.89	68.87	0.230	62.44	38.75	51.24	0.28
D&D	84.47	83.55	84.03	0.008	68.55	55.59	62.18	0.13
Delhi	79.37	82.22	80.71	-0.026	81.79	77.88	79.98	0.04
Lakshadweep	92.26	90.38	91.35	0.016	91.16	89.59	90.41	0.01
Pondicherry	98.39	93.26	95.86	0.045	84.33	77.21	80.81	0.06
India	75.87	58.33	67.40	0.172	59.27	38.77	49.59	0.24
C.V.	15.73	28.01	23.50		24.37	40.74	32.35	

Source: Calculated from Sixth AIES

high enrolment ratio had shown some improvement in enrolment as one moved up from the lower to the higher age cohort, e.g. Kerala (86.21% to 95.89%) and Meghalaya (55.94% to 75.69%). In case of other states also, which had fared moderately well have not experienced any drastic decline in enrolment ratio in the 11 to below 14 years age group in comparison with the former age cohort. Decline in upper age-group, in case of many states was due to significant decline

Map No. 4.2

Regional Disparity in School Enrolment at Middle Level In Rural India (1993)



in the enrolment of the girls e.g. in Bihar it was 46.60% in the lower age group, plummeted to 15.98% in the next level, and in case of Andhra Pradesh it declined from 56.415% to 25.06%, from one age group to the other.

4.3.2 Gross Enrolment Ratio

An analysis of statistics related to **Gross Enrolment Ratio** (GER) (see Table No.4.4) revealed that during the Fourth AIES it was 79.22% for primary level. It was 111.36% for boys, whereas only 59.88% for girls. The figures were exceptionally low at the upper primary level, as it was only 19.97% for all, 20.73% for boys and 18.23% for girls.

This trend could be explained in conjunction with the age-specific enrolment ratio. As we have already noticed that during the fourth survey, the age-specific enrolment ratio for the age group 6 to below 11 years was nowhere near universal, more than 100% GER for males can be attributed to the presence of overage and underage students in the primary section. The GER at the upper primary level for both boys and girls was exceptionally low, but the age specific enrolment ratio in the corresponding age group was not so dismal. So, it can be assumed that a large chunk of students in to 11 to below 14 years of age group who went to school actually went to primary schools, though they were overage for that level. As a result of that, the GER for primary level was inflated and spurious.

The regional trend that was revealed was that, Kerala (103.86%), Tamil Nadu (102.62%) and Punjab (112.10%) along with the northeastern states and the UTs had more than 100% GER. Except for Kerala none of these states could sustain that trend at the upper primary level. Only Kerala had GER of 85.31% at the upper primary level. For the other major states, even the ones with near universal GER at primary level, had registered very low values for upper primary level.

Table No. 4.4

Gross Enrolment Ratio (1978)

	Primary				Upper Primary			
States/Uts	**Boys**	**Girls**	**Total**	**Gender Disparity Index**	**Boys**	**Girls**	**Total**	**Gender Disparity Index**
A.P.	88.58	60.73	74.97	0.26	12.34	10.91	11.92	0.06
Assam	91.77	69.09	80.72	0.21	45.79	2.87	29.31	1.31
Bihar	99.20	40.06	70.53	0.59	7.72	5.96	7.38	0.12
Gujarat	119.88	80.95	101.52	0.34	29.28	26.65	28.35	0.05
Haryana	93.79	48.10	72.60	0.45	19.32	15.27	18.46	0.11
H.P.	117.80	86.73	102.71	0.27	41.22	31.78	38.10	0.14
J & K	80.03	40.92	61.57	0.41	17.97	16.40	17.58	0.04
Karnataka	104.92	80.64	93.16	0.21	20.32	17.27	19.27	0.08
Kerala	105.26	102.41	103.86	0.02	86.09	84.43	85.31	0.01
M.P.	78.58	33.60	57.17	0.51	9.91	7.47	9.42	0.13
Maharastra	97.15	69.17	83.38	0.25	27.71	21.18	25.39	0.13
Manipur	137.10	101.95	119.21	0.32	30.82	30.31	30.63	0.01
Meghalaya	146.85	133.84	140.14	0.14	32.11	30.51	31.38	0.03
Nagaland	150.51	122.17	136.46	0.29	43.54	42.80	43.23	0.01
Orissa	102.10	66.60	85.05	0.32	17.27	15.09	16.60	0.06
Punjab	118.19	105.29	112.10	0.11	45.10	39.51	42.97	0.07
Rajasthan	89.92	24.62	59.74	0.76	6.42	5.27	6.29	0.09
Sikkim	138.82	79.78	109.48	0.53	13.08	10.04	12.08	0.12
Tamilnadu	116.81	105.73	102.62	0.10	31.60	28.05	30.34	0.06
Tripura	95.81	63.97	79.67	0.29	20.47	19.81	20.22	0.02
U.P.	92.45	40.00	67.46	0.54	12.69	9.97	12.16	0.11
West Bengal	97.99	70.55	84.63	0.25	20.96	20.27	20.70	0.02
A & N Island	92.09	78.61	85.49	0.12	34.56	31.78	33.41	0.04
Arunachal Prad.	97.92	46.78	72.78	0.50	10.13	9.48	9.95	0.03
Chandigarh	102.37	95.99	99.41	0.06	61.12	58.48	60.04	0.03
Dnh	139.98	83.40	111.39	0.51	16.73	15.59	16.36	0.03
Delhi	119.68	112.85	116.75	0.06	65.84	52.78	61.20	0.14
Goa, D&D	135.19	109.06	122.12	0.24	59.31	58.14	58.79	0.01
Lakshadweep	143.19	128.91	136.47	0.14	72.97	58.63	67.06	0.14
Mizoram	147.65	140.74	144.28	0.07	52.36	54.66	53.37	-0.03
Pondicherry	110.48	87.29	98.95	0.20	54.90	51.01	53.50	0.04
India	111.36	59.58	79.22	0.47	20.73	18.23	19.97	0.06
C.V.	112.09	80.95	96.47	0.30	33.16	28.70	31.57	0.10

Source: Calculated from Fourth AIES.

In the Fifth AIES (see Table No.4.5) the value of GER had improved for both primary (90.84%) and upper primary (40.32%) level. Nonetheless, the gap between the two remained significant. In the regional front, the picture remained almost the same as Kerala, Himachal Pardesh, Tamil Nadu and the northeastern

states, along with the UTs had GER more than 100%. Among the backward states like Orissa (98.70%), situation had improved at the primary level, while some other backward states like Uttar Pradesh (68.80%), Rajasthan (77.97%) were still lagging behind. At the upper primary level, only Delhi (114.39%) had GER more than 100%, with Goa (96.10%) approaching closer to the 100% mark. Even Kerala had GER of only 86.62% at the upper primary level.

Sixth AIES revealed (see Table No.4.6) that, GER at primary level had declined from 90.84% to 82.65% but at the upper primary level it had experienced increment from 40.32% to 46.42%. GER for girls increased significantly from 26.56% to 35.82%, at the upper primary level, whereas for boys the increase was marginal.

On the other hand, the decline at the primary level GER was mainly due to significant diminution of GER among boys, which was 106.18% in Fifth survey and 92.76% in the sixth survey. During the same period, the age-specific enrolment ratio for 6 to below 11 years of age had also declined. In that case also enrolments of boys were more adversely affected than that of girls. If it was due to some retrograde policy measures, administered during that period, the effect would have been more detrimental to the girls' enrolment, but the situation was reverse. Moreover the enrolment at the upper primary level had experienced upward growth. So, it can be inferred that the diminution of GER for boys at primary level was due to elimination of upward bias that was there in the fifth AIES. The sixth AIES had been regarded as the most accurate and detailed survey by a large section of the academia.

Table No. 4.5
Gross Enrolment Ratio (1986)

States/ Uts	Primary				Upper Primary			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	107.44	78.83	93.24	0.25	38.14	17.20	27.66	0.40
Arunachal Prad.	109.76	76.72	93.63	0.29	37.12	24.13	30.92	0.22
Assam	98.88	80.73	90.12	0.16	46.25	34.83	40.87	0.15
Bihar	108.20	51.41	79.97	0.53	38.83	12.28	25.91	0.57
Goa	137.47	125.70	131.63	0.11	101.31	90.62	96.10	0.09
Gujarat	124.43	94.52	109.80	0.26	56.67	34.69	46.08	0.28
Haryana	103.00	79.86	92.29	0.20	73.44	31.40	53.70	0.49
H.P.	159.24	92.27	119.59	0.66	91.00	60.72	76.16	0.28
J&K	91.14	61.25	76.99	0.28	64.61	32.69	49.63	0.39
Karnataka	107.44	85.98	96.82	0.19	45.87	26.79	36.41	0.28
Kerala	107.71	105.16	106.45	0.02	87.27	85.96	86.62	0.01
M.P.	114.83	69.48	92.72	0.40	53.94	14.24	34.17	0.68
Maharastra	128.01	105.58	117.03	0.20	67.42	42.03	55.13	0.28
Manipur	101.34	88.57	95.00	0.11	54.44	39.66	47.16	0.18
Meghalaya	113.56	11.01	20.18	1.35	49.16	44.14	46.64	0.06
Mizoram	156.31	142.44	149.48	0.16	62.14	58.51	60.35	0.04
Nagaland	119.10	112.18	115.70	0.06	44.91	35.24	40.19	0.13
Orissa	110.26	86.04	98.70	0.21	46.15	2.53	24.59	1.37
Punjab	106.52	99.92	103.44	0.06	64.19	48.67	56.97	0.17
Rajasthan	102.46	45.19	77.97	0.56	55.40	8.38	32.93	0.94
Sikkim	157.52	129.66	143.72	0.30	64.55	52.02	58.51	0.13
Tamilnadu	132.30	128.10	130.36	0.04	77.29	53.09	65.93	0.24
Tripura	138.63	114.34	126.72	0.23	60.80	43.81	52.48	0.19
U.P.	87.51	47.81	68.80	0.39	49.74	15.89	33.96	0.58
West Bengal	91.72	72.26	82.22	0.18	46.11	27.19	36.89	0.28
A&N Island	95.45	83.17	89.30	0.11	81.38	71.88	76.87	0.09
Chandigarh	109.21	109.05	109.14	0.00	61.67	50.73	56.75	0.12
Dadra & N.Haveli	139.37	110.00	125.83	0.27	44.28	28.46	36.92	0.23
Daman & Diu	169.59	153.72	161.71	0.23	88.46	63.52	76.29	0.23
Delhi	152.95	143.52	148.62	0.11	130.49	95.57	114.39	0.31
Lakshadweep	151.09	142.64	146.97	0.09	95.19	76.53	86.00	0.17
Pondicherry	128.55	126.14	127.38	0.02	83.31	68.78	76.74	0.13
India	106.18	74.37	90.84	0.28	53.15	26.56	40.32	0.37
C.V.	18.80	34.30	27.05	101.57	33.48	55.82	40.88	92.03

Source: Calculated from Fifth AIES.

Table No.4.6

Gross Enrolment Ratio (1993)

States/ Uts	Primary				Middle			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	84.92	70.05	77.58	0.14	43.54	25.88	35.10	0.27
Arunachal Prad.	110.25	89.21	100.08	0.18	55.63	39.33	47.83	0.20
Assam	94.10	79.84	87.06	0.13	57.08	48.14	52.73	0.10
Bihar	80.32	46.62	64.34	0.34	36.45	15.96	27.20	0.41
Goa	103.15	97.55	100.39	0.05	89.11	79.81	84.58	0.08
Gujarat	112.56	92.82	102.99	0.17	64.52	44.77	55.15	0.22
Haryana	86.92	80.73	84.02	0.06	64.74	48.08	57.13	0.18
H.P.	111.35	105.81	108.63	0.05	90.53	76.20	83.54	0.13
J&K	82.54	59.16	70.89	0.22	64.06	40.68	52.90	0.27
Karnataka	108.84	93.43	101.14	0.13	57.61	40.31	49.09	0.20
Kerala	103.09	98.96	101.05	0.04	98.20	94.80	96.52	0.03
M.P.	97.06	72.24	84.95	0.22	55.86	26.56	42.04	0.40
Maharastra	109.81	100.30	105.17	0.08	72.19	55.24	64.08	0.17
Manipur	120.10	107.00	113.64	0.12	71.75	61.03	66.44	0.11
Meghalaya	105.71	107.13	106.42	-0.01	47.45	44.25	45.86	1.14
Mizoram	136.75	118.99	127.87	0.17	60.32	54.33	57.34	0.06
Nagaland	68.93	66.32	67.65	0.03	32.46	32.32	32.39	0.00
Orissa	107.76	85.84	96.93	0.19	56.53	36.74	46.69	0.24
Punjab	98.29	91.28	95.00	0.06	66.97	52.42	60.13	0.15
Rajasthan	95.35	46.53	72.16	0.48	57.03	14.42	37.18	0.71
Sikkim	120.51	104.68	112.60	0.14	56.26	54.71	55.51	0.02
Tamilnadu	112.14	105.98	109.11	0.05	84.21	70.23	77.39	0.13
Tripura	111.53	96.80	104.30	0.13	57.26	46.74	52.14	0.12
U.P.	75.57	4.80	12.02	1.39	49.03	2.22	7.23	1.46
West Bengal	96.91	83.80	90.48	0.12	47.41	33.24	40.53	0.19
A&N Island	118.40	110.36	114.42	0.07	83.46	79.87	81.75	0.03
Chandigarh	85.68	82.71	84.28	0.03	60.50	57.39	59.07	0.03
Dadra & N. Haveli	109.74	73.59	91.85	0.32	50.77	29.54	40.74	0.29
Daman & Diu	113.22	104.38	108.92	0.08	77.78	67.04	72.50	0.10
Delhi	104.61	108.73	106.55	-0.04	94.50	89.84	92.35	0.04
Lakshadweep	127.01	120.27	123.75	0.06	108.95	96.13	102.83	0.11
Pondicherry	123.33	117.31	120.36	0.05	118.10	106.50	112.36	0.10
India	**92.76**	**71.82**	**82.65**	**0.19**	**55.91**	**35.82**	**46.42**	**0.25**
C.V	15.06	27.92	23.28		30.60	48.33	39.43	

Source: Calculated from Sixth AIES.

The regional trend remained the same even in sixth AIES. The only spectacular trend that the data revealed was that many states like Himachal Pradesh (105.81%), Maharashtra (100.30%), Manipur (107.00%), Meghalaya (107.13%), and Mizoram (127.87%) had secured more than 100% GER for females, which was not the case till the Fifth Survey. But, that trend could not be sustained at the upper primary level, as it sank for all the states, like Maharastra (55.24%), Manipur (61.03%), Meghalaya (44.25%), Mizoram (54.33%). On the other hand though Kerala (98.96%) and Himachal Pradesh (76.3%) remained short of 100% mark at the primary level, retained that upward trend as GER did not nosedive for them even at upper primary level.

4.3.3 Net Enrolment Ratio

This is the most accurate measure of enrolment at any level, revealed the fact that though some of the states have achieved high enrolment, the quality of education imparted is not beyond question. A high GER and low NER goes to suggested that there has been overwhelming presence of overage and underage students at a particular stage of education. This phenomenon was more discernable in the primary level as the difference between GER and NER is more at that level than at the upper primary level. That was mainly due to late enrolment age for pupil in the rural areas and persistence of high repetition rates which barred the students to get promoted to the subsequent level. Those differences between GER and NER were even more prominent among boys than among girls. That might be due to the fact that, as the girls grow up they are withdrawn from the education system due to various social constraints. As a result of that enrolment of overage girls in the primary and especially in the upper primary level is not so preponderant.

Among the Indian states (see Table No.4.7), Tripura (93.13%), Manipur (89.55%), Himachal Pradesh (82.15%), Kerala (80.02%), Karnataka (80.38%) had high NER. On the other hand, West Bengal (54.54%), Rajasthan (54.57%), Andhra Pradesh (58.95%) fared badly with regard to this indicator. The NER at upper primary level, for the entire nation was 38.47%. Other than Kerala (82.92%) and Tamil Nadu (77.39%), Delhi (78.25%) others failed to sustain the momentum of development that they acquired at the primary level.

Table No. 4.7

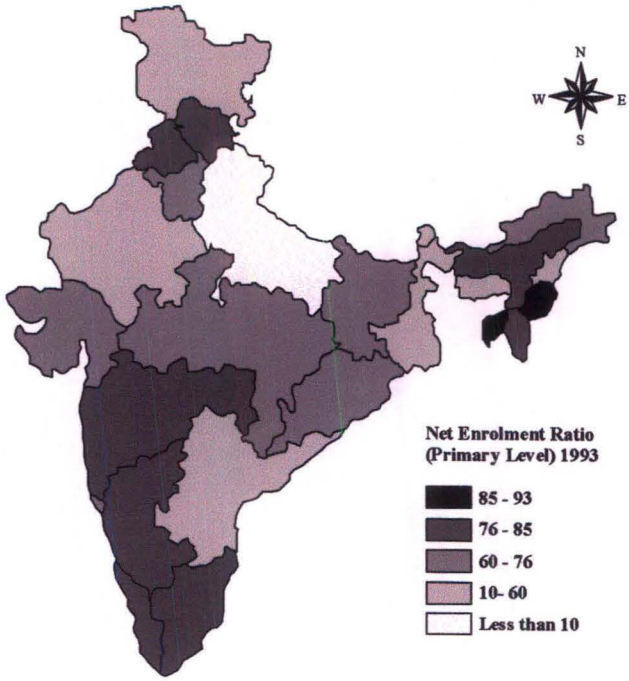
Net Enrolment Ratio (1993)

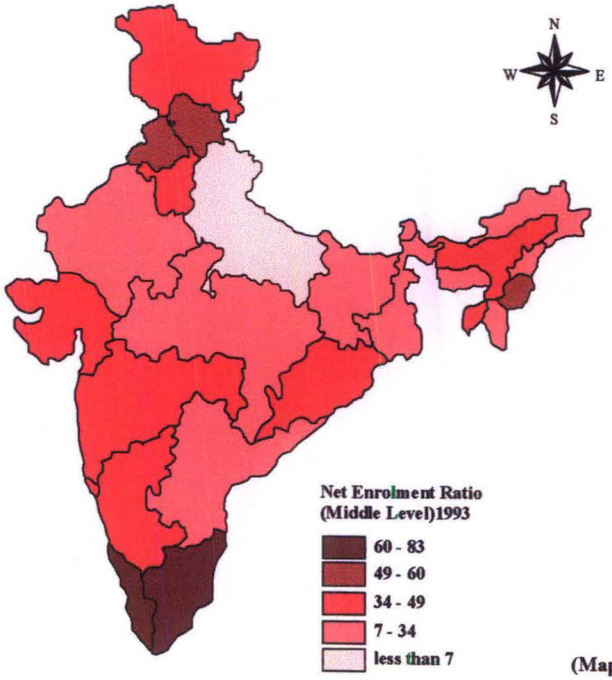
	Primary				Upper Primary			
States/ Uts	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	64.98	52.77	58.95	0.13	31.30	18.08	24.98	0.27
Arunachal Prad.	77.38	62.39	70.13	0.14	39.93	28.44	34.44	0.18
Assam	84.70	72.00	78.43	0.12	44.89	37.30	41.20	0.10
Bihar	80.28	46.60	64.31	0.34	36.45	16.39	27.39	0.40
Goa	70.69	68.08	69.40	0.03	47.41	46.36	46.90	0.01
Gujarat	82.64	69.22	76.13	0.12	50.55	36.78	44.02	0.18
Haryana	76.98	71.75	74.53	0.05	53.30	40.46	47.43	0.16
H.P.	83.88	80.36	82.15	0.03	64.57	56.14	60.46	0.09
J&K	68.35	48.54	58.49	0.21	59.50	37.84	49.17	0.26
Karnataka	86.19	74.57	80.38	0.11	47.64	34.17	41.01	0.18
Kerala	81.68	78.33	80.02	0.03	84.22	81.58	82.92	0.02
M.P.	83.83	64.81	74.55	0.18	41.27	16.43	29.55	0.46
Maharastra	82.20	75.86	79.11	0.06	50.15	39.41	45.01	0.13
Manipur	92.73	86.29	89.55	0.06	61.86	52.38	57.17	0.10
Meghalaya	54.37	55.75	55.05	-0.01	23.18	21.89	22.54	0.03
Mizoram	84.81	75.03	79.92	0.09	33.40	32.15	32.78	0.02
Nagaland	42.08	40.40	41.26	0.02	18.90	19.13	19.01	-0.01
Orissa	78.49	65.04	71.85	0.13	50.16	32.13	41.20	0.24
Punjab	85.24	81.10	83.29	0.04	58.24	46.93	52.92	0.13
Rajasthan	72.23	35.05	54.57	0.43	44.55	11.76	29.28	0.66
Sikkim	65.02	55.93	60.48	0.09	21.65	20.45	21.07	0.03
Tamilnadu	87.22	82.20	84.75	0.04	84.21	70.23	77.39	0.13
Tripura	98.34	87.72	93.13	0.09	48.01	39.35	43.80	0.11
U.P.	57.50	3.58	9.08	1.34	45.18	2.05	6.67	1.45
West Bengal	58.30	50.63	54.54	0.08	32.77	22.70	27.88	0.18
A&N Island	84.20	81.24	82.73	0.03	49.84	50.75	50.27	-0.01
Chandigarh	63.75	62.71	63.26	0.01	30.92	30.92	30.92	0.00
Dadra, N.Haveli	78.16	55.18	66.79	0.23	28.12	19.06	23.83	0.19
D&D	85.76	76.98	81.49	0.08	47.54	40.57	44.11	0.09
Delhi	79.37	82.22	80.71	-0.03	80.11	76.09	78.25	0.04
Lakshadweep	87.81	85.64	86.76	0.02	56.91	58.23	57.54	-0.01
Pondicherry	97.53	92.60	95.10	0.04	80.37	70.82	75.64	0.09
India	**73.85**	**56.72**	**65.58**	**0.17**	**46.50**	**29.49**	**38.47**	**0.24**
C.V	16.41	28.07	23.83		35.96	51.71	43.48	

Source: Calculated from Sixth AIES

Map No.4.3

Net Enrolment Ratio in Elementary Education In Rural India (1993)





(Maps Not to Scale)

4.3.4. Measurement of Regional Disparity in Elementary Enrolment

Regional disparity at the national level can be measured by calculating **coefficient of variation (C.V.)** for different periods of time. The C.V. of the age-specific enrolment ratio for three different AIES reflected that (see Table No. 4.1, 4.2, & 4.3) for 6 to below 11 years age group, it had marginally gone up. It was 20.72% for the Fourth AIES, declined marginally to 18.31% for the Fifth AIES, moved up to 23.5% in the Sixth AIES. In case of the boys the changes were marginal. But it was significant in case of the girls .It was 34.04% in Fourth Survey, followed by 24.99% in the Fifth AIES and 28.01% in the Sixth AIES. The uppish trend in the C.V. between Fifth and Sixth AIES can be ascribed to increase in regional disparity in girls' enrolment.

Regional disparity for 11 to below 14 years age group had remained almost same, over the period under consideration. The regional disparity in case of girls for that age group has declined significantly from 50.16% during 4th AIES, to 45.51% in Fifth AIES to 40.74% in Sixth AIES. As a result of that, the overall CV had also declined through marginally, inspite of the fact that CV for the boys' enrolment of had remained static.

From the ongoing discussion, it is visible that regional disparity in participation in formal education system persists, in spite of planning intervention of almost fifty years. This is mainly due to the fact that the key factors which determine the issues related to participation in education are culturally defined. The states that have low rates of enrolment are mostly located in Central and North India. This is the area, which is dominated by conservative Hindu religious values, and rigid caste structures, which impede the infiltration of modern values among the masses.

On the other hand, the peripheral areas of India like Kerala, Tamil Nadu and even relatively remote and far-flung areas of northeast have performed better than the rest of the country. These regions especially have less predominance of upper caste Hindus, more flexible caste structure and more progressive gender socialization, which made them more receptive to, institutionalized elementary education.

The trend of increasing regional disparity in case of 6 to below 11 years of age group can be explained by the fact that the states which had been significantly improving their positions in terms of spread of elementary

education had made rapid progress in primary level but states with low enrolment remained stagnant. Improvements in the enrolment of girls had been instrumental in their overall growth in the field. But the improvements in the upper primary level are not so visible as a result of that regional disparity has remained stagnant for 11 to below 14 years age group. The states like H.P., Goa, Tamil Nadu, along with the northeastern states like Meghalaya, Assam, Nagaland, had made discernible progress in the field of enrolment at the primary level but failed to sustain it at the upper primary level. This had given rise to another fact that disparity had always remained high for the lower age group. Various socio-cultural and economic determinants are working behind it. Retrograde gender socialisation and lower status of women in the society (Ramachandran, 2000, p.4), engagement of boys and girls in pursuits other than academics in the adolescence (Weiner 1996,p.3009) and poverty (Singh & Prabha,1991,p.51) are the most important of them. Because of these reasons it was easier to arrest the plight at the primary level but it was found to be extremely difficult to get rid of the inertia at the upper primary level.

Another fact that can be highlighted was that regional disparity in female enrolment was higher than males and that it was higher in the upper age cohort. So the situation improved in the states, which are known to be laggards, with respect to enrolment of the boys, and a convergent trend emerged among the states. This observation reiterates the fact that it is easier to ensure enrolment of boys in formal education than girls. Moreover, it is easier to mobilise eagerness to send girls to school at the younger age than in the adolescence. The reason behind this scenario can be accounted for in the insensitive and unequal gender relations in the Indian society. So, gender gap in enrolment has a far-reaching impact on the course of educational planning. In order to provide some insight into this, the next section focuses on these issues in great detail.

4.2 Gender Gap In Enrolment in Elementary Education

In the present study the gender disparity index has been calculated following the method propounded by Sopher (modified by Kundu) (Kundu and Rao, 1986).

In the Fourth AIES (see Table No.4.1), at all India level the values of gender disparity index were high. It was 0.38 for 6 to below 11 yeas age group and 0.39 for 11 to below 14 years age group. In the Fifth All India Education Survey (see Table No.4.2), the index value had declined significantly. It became 0.25 for the lower

and 0.34 for the higher age cohort. So, the decline was sharper for the lower age-group than the higher one. In the Sixth survey further diminution of disparity Index value could be noticed as it was 0.17 for 6 to below 11 years age-group and 0.24 for 11 to below 14 years age group. So, it was evident from the data that gender disparity was higher in higher level of education and though gender disparity as a whole had diminished, but in case of higher age cohort that decline was not as significant as primary level.

A regional level disaggregation showed gender disparity in enrolment was particularly high in northern and central Indian states. In the Fourth Survey, the highest level was found in Rajasthan (0.69 and 0.87 for two age groups), followed by U.P. (0.51 and 0.64), Madhya Pradesh (0.44 and 0.63), Bihar (0.39 and 0.66). In all those states enrolment and literacy was significantly low. But, one should not be tempted to think that low level of enrolment was always associated with high disparity, there can be exceptions. Case in point Meghalaya and Nagaland, where the enrolment was low but gender disparity was negligible. It was virtually absent in Kerala, in the northeast and in Lakshwadeep, Delhi. Pondicherry. But in all these cases, except for Kerala, the value of disparity index increased in the higher age group.

The same trend persisted in the fifth survey results, with the BIMARU states still spawning unequal gender status. Among the states which had high gender disparity index value, only Haryana had shown some improvement that too only in the lower age-group. Among the north eastern states Meghalaya which had low disparity in 6 to below 11 years age group and high disparity in 11 to below 14 years age-group, had shown that, disparity in the upper age-group had declined significantly. Nagaland remained an enigma, with negative value for disparity index in the first age group, had disparity as high as 0.24 in the subsequent age cohort.

In the Sixth Survey, it was evident that there had been a decline in gender disparity in case of all the states. The BIMARU states could not get rid of the burden of inertia even after gender sensitive planning interventions. Nevertheless, they had experienced some decline in gender-disparity in terms of magnitude. One healthy trend that had to be cheered for was that the UTs like Lakshadweep, Pondicherry, Daman and Diu which had high gender disparity in the upper cohort had, had reversed the negative the negative trend successfully. Some of the states

which were not faring well earlier, had actually become receptive to changes and their gender disparity level had come down from a high to moderate level e.g. Madhya Pradesh (0.16), Orissa (0.18) at the primary stage, though the disparity at the upper primary level it remained very high. Among the northeastern states Meghalaya and Nagaland had shown negligible or even negative disparity at times in spite of their low overall enrolment.

The reasons for low demand for education of women in India lie in the socio-cultural factors. A set of social institutions and associated beliefs are responsible for this malady. Patrifocal family structure and ideology and rigid caste system constrain women from joining formal, institutionalized education system. Girl children, whether they will join schools or not are generally determined at three levels: family, school and community level. At the familial level traditional, patriarchal ideology has given rise to the perception that women's role should be confined to domestic sphere. Girl children, as they grow up and reach puberty their activities are restrained. Most of the parents are reluctant to allow their girl child outside the village for schooling (Dreze and Sen, 1996, p.113). Another most important factor is that, the educational decisions for the boys and the girls are made on radically different grounds. In case of boys there are strong economic incentives. It is widely regarded that an educated boy has better chance to get non-traditional employment than a girl. On the other hand, it is widely perceived that education can make very meager contribution in the quality of life of a girl as she should primarily perform domestic roles, marriage and child bearing. As a result of that parents are reluctant to expenses for their daughters' education or send them to far off destinations to study (Gazdar H., 1996, p. 62). Moreover, it is more likely that the girls should assist their mothers in the household chores and in bringing up their younger siblings (Mehrotra, 1998, p.477). So, the prospects of her attending school are jeopardized due to various preoccupations at the familial level.

This contrast in parental attitude towards education of boys and girls has strong implications on the public policy (PROBE Report, 1995, p.20). As parents are more eager to send boys to school, in the states where infrastructural facilities are poor, parents tend to reinforce any efforts made to improve facilities for the education of boys more enthusiastically in comparison to girls' education.

Apart from parental inertia, gender stereotypes at the school level also

have detrimental effects on girls' enrolment. Even in the class rooms, boys and girls are expected and if not explicitly but tacitly are encouraged to perform sex appropriate roles. While boys are praised more for their academic achievements, girls earn accolades for their conformity, demure and acquiescence (Nambisan, 1995, pp.203-204) Even the text books provide role models where men are depicted as 'doers' and women as happily settled in running domestic chores. Skeptical attitude of the teachers towards the academic performances of the girls and hidden male bias in the curriculum dampen the motivation of the parents and students to join formal education.

At the community level, the practice of dowry and hypergamous marriage really undermines the parental motivation to send their daughter to school. Hypergamous marriage, i.e. the girl should marry "up" in the social ladder, is practiced in large part of rural India. So, for an educated girl it becomes mandatory to tie the nuptial knot with a bridegroom more educated than her, which is difficult to find. As the institution of dowry still prevails in large part of rural India, it is more expensive to marry off an educated girl as the educated groom demands more money in dowry (PROBE Report, 1995 p.23).

Religious affiliations also have in important roles to play in structuring gender relations at familial and societal level. With the growing level of Sanskritisation (.e. a process by which middle and lower castes try to emulate the upper castes in order to achieve higher ritual status in caste hierarchy) especially in the Hindu heartland, gender relations are becoming more insensitive to rights of women to receive formal education (McDougall,2000,p.1655).

At the regional level, where the gender relations are less adverse, expansion of women education has been easier. Kerala is the most obvious example, along with H.P., northeastern states etc. There are evidences, which suggest that economic well being have positive influence on gender relation.

Another most important factor is cultural diversity. It has been observed in the Indian scenario that foreign contacts have played a positive role in eliminating stagnancy in education. Case in point is Kerala and northeast where the activities of Christian missionaries have played significant role in propagation of formal education in rural areas. (MacDougall, 2000,p.1652). From the aforesaid discussion it can be concluded that parental apathy at the family level, lack of empathetic understanding by teachers in the school and hidden patriarchal agenda

in the curriculum along with marital concerns have been proved inimical to the participation of girls in the education system.

So, only the provision of better educational facilities will not be sufficient to cope up with the situation. Provision of incentives to the reticent parents for sending their daughters to school, more gender –positive curriculum, and honest efforts to eradicate the retrograde social institutions like dowry has to be carried out in order to bridge the gender gap in enrolment in elementary education.

4.5. Enrolment of Scheduled Castes and Scheduled Tribes in Elementary Education

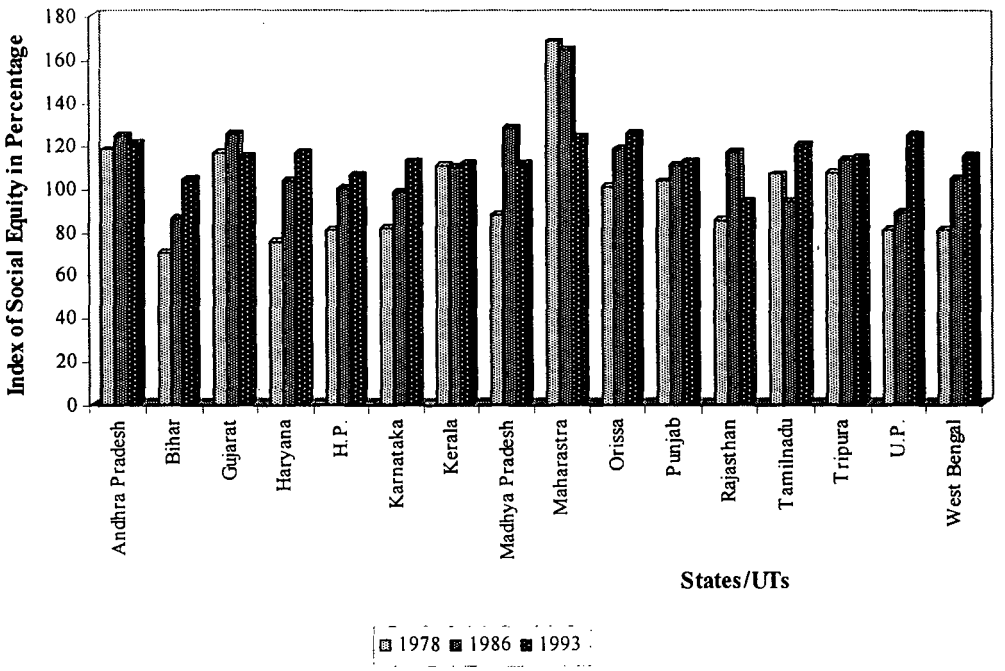
Multi-ethnic social fabric of Indian society and division along caste and tribal lines has become a stumbling block in the achievement of universal elementary education in India. In spite of all the emphasis given by constitution makers to empower the weaker sections and education being the corner stone in the edifice of empowerment, the hiatus still exists between the aspiration and achievement. In the country there are nine states i.e. A.P., Assam, Bihar, J&K, Madhdya Pradesh, Orissa, Rajasthan,Uttar Pradesh and West Bengal have been identified as educationally backward. These states have high concentration of SC and ST population .So, it can be largely inferred that dismal performance of education among weaker sections is actually one of the reasons believed overall poor performance of the states. (Mohanthy J, 2002, p.485).

4.5.1. SC Enrolment

Analysis of data published in All India Educational Survey, Fourth, Fifth and Sixth Round established the fact that **enrolment of SCs** and **STs** had gone up over a period of time. The data provided for **SC communities** showed that Index of Social Equity (i.e. ratio between proportion of SC enrolment and SC population of the state) in 1978 was 89.45 %(see Table No.4.8). In 1986 it was 100.5 % (see Table No.4.9) and then increased to 113.93% in 1993 (see Table No.4.10). Growth was also consistent in upper primary level as it was 69.83% in 1978, 89.46% in 1986 and 91.06% in 1993. Evidently the growth was more spectacular at the primary stage than at the upper primary stage.

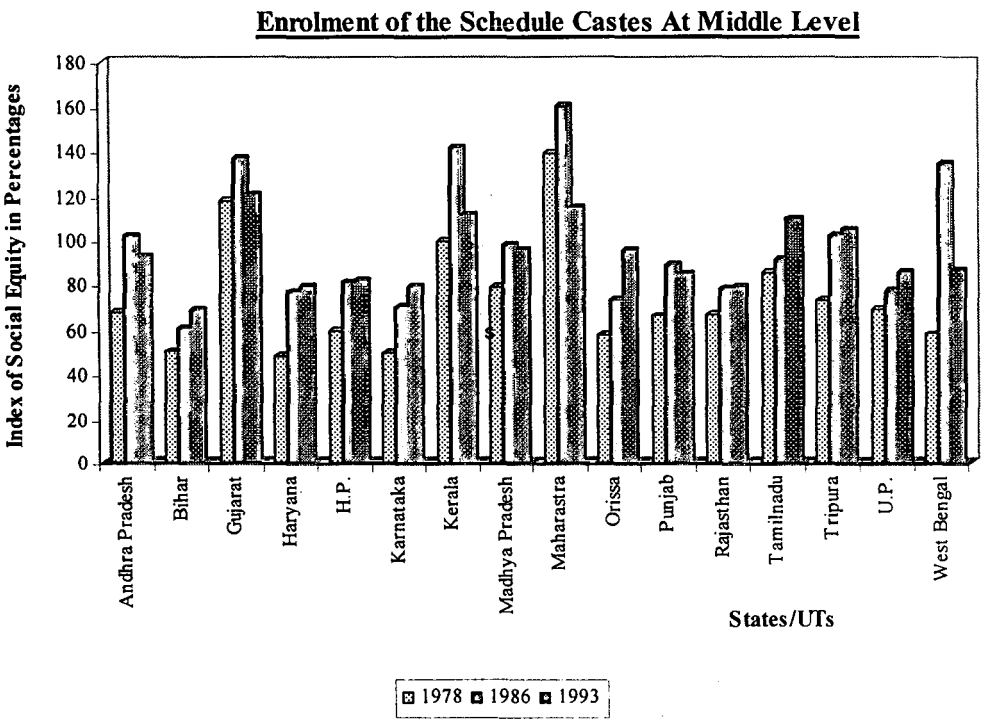
Chart No.4.1

Enrolment of Schedule Castes at Primary Level



The regional pattern that had emerged from the data was that the educationally backward states had low index value for obvious reasons. At the primary level states like Bihar, Rajasthan, and West Bengal had performed dismally with respect to all three points of time. States like Himachal Pradesh and Haryana had low level of index value in 1978, but had subsequently improved their positions and were almost at par with educationally developed state like Kerala, by the year 1993. Madhya Pradesh, which was, an educationally backward state had low index value of 81.09% in 1978, improved to 111.01% in 1993 which is almost at par with Kerala (111.03%).

Chart No.4.2



But, the success of those states had not been replicated at the middle stage. Though Haryana (43.44%), Himachal Pradesh (59.91%) and Madhya Pradesh (74.54%) all three states had low index value in 1978 (see Table No.4.8) , had progressed in the field of promotion of SC education, but their positions were nowhere near educationally developed states in 1993. They still had way to go to catch up with Kerala (111.10%), Maharastra (114.64%) and Tamil Nadu (110.18%).

Another most interesting trend that had been revealed was that growth in terms of enrolment was pronounced between the period of 1978 and 1986. A reverse trend emerged between1986 and 1993. This trend especially holds well in case of economically advanced states. Andhra Pradesh is a state, which is globalizing very fast, was an example of this. This trend can be attributed to siphoning off of resources from social sector to other sectors of economy in order to fuel economic growth.

Table No.4.8
Index of Social Equity (SC. Community) (1978)

States/ Uts	Primary				Middle			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	116.20	119.07	117.48	-0.03	68.34	65.19	67.64	0.03
Bihar	82.82	44.85	69.95	0.39	57.80	24.69	50.31	0.46
Gujarat	122.07	107.47	116.52	0.13	122.94	89.30	111.79	0.30
Haryana	83.09	51.78	415.64	0.31	60.76	28.29	309.56	0.42
H.P.	85.12	72.22	80.07	0.12	65.84	42.90	59.91	0.25
Karnataka	84.98	76.41	81.44	0.08	55.87	35.55	49.68	0.25
Kerala	110.45	109.12	109.83	0.01	98.60	101.42	99.94	-0.02
M.P.	94.82	65.78	87.09	0.26	84.97	47.85	79.54	0.37
Maharastra	176.11	156.63	168.40	0.31	148.30	114.92	138.94	0.33
Orissa	105.75	90.86	100.30	0.13	65.52	37.44	57.82	0.33
Punjab	105.94	98.30	102.62	0.07	74.66	51.05	66.62	0.24
Rajasthan	101.86	45.74	84.61	0.54	79.66	18.97	67.12	0.80
Tamilnadu	109.54	101.84	106.11	0.07	91.57	74.97	86.20	0.15
Tripura	106.87	106.08	106.58	0.01	77.79	66.61	73.70	0.11
U.P.	89.20	58.96	80.56	0.28	75.43	37.00	69.25	0.43
West Bengal	85.21	73.68	80.57	0.10	62.05	52.02	58.52	0.11
India	93.81	81.32	89.45	0.11	75.03	55.57	69.83	0.19

Source: Calculated from Fourth AIES.

Table No. 4.9
Index Of Social Equity (SC. Community) (1986)

	Primary				Upper Primary			
States/ Uts	**Boys**	**Girls**	**Gender Disparity Index**	**Total**	**Boys**	**Girls**	**Gender Disparity Index**	**Total**
A.P.	123.03	124.96	-0.02	123.93	102.35	101.29	0.01	101.84
Bihar	98.09	65.21	0.30	85.3	71.25	49.7	0.22	60.5
Gujarat	124.29	125.94	-0.02	124.99	141.58	128.78	0.13	137
Haryana	105.19	107.61	-0.02	103.4	106.44	65.87	0.36	77.22
H.P.	102.29	95.72	0.06	99.42	103.4	75.4	0.25	81.46
Karnataka	100.58	94.7	0.05	98.02	110.07	57.91	0.48	70.42
Kerala	109.16	108.91	0.00	109.07	157.06	125.62	0.34	141.34
M.P.	132.18	119.39	0.12	127.83	106.81	89.1	0.15	97.955
Maharastra	166.33	161.32	0.07	164.3	174.26	146.87	0.39	160.565
Orissa	121.48	122.99	-0.01	118.04	75.16	71.52	0.03	73.34
Punjab	114.76	104.59	0.09	110.24	107.49	71.2	0.32	89.345
Rajasthan	136.59	82.54	0.49	116.24	107.3	49.31	0.55	78.305
Tamilnadu	95.27	91.11	0.04	93.41	100.72	90.08	0.09	91.56
Tripura	111.94	113.09	-0.01	112.5	103.46	96.75	0.06	102.1
U.P.	97.1	79.4	0.16	88.25	106.24	60.84	0.41	78.01
W.B.	107.21	101.3	0.05	104.255	148.95	119.84	0.29	134.4
India	104.72	96.28	0.07	100.5	105.79	77.39	0.25	89.46

Source: Calculated from Fifth AIES

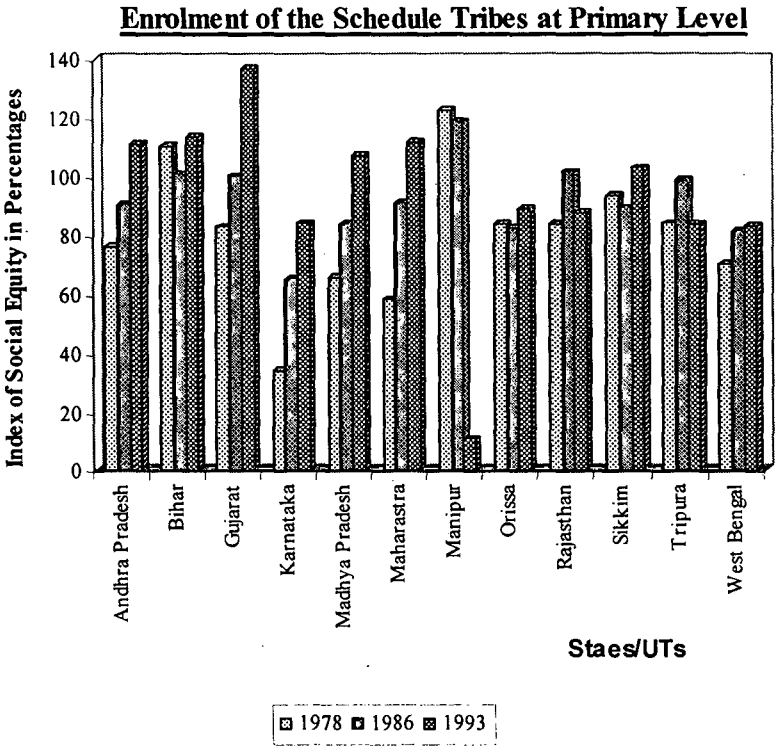
Table No. 4.10
Index of Social Equity (SC. Community) (1993)

	Primary				Upper Primary			
States/ Uts	**Boys**	**Girls**	**Gender Disparity Index**	**Total**	**Boys**	**Girls**	**Gender Disparity Index**	**Total**
A. P.	122.45	118.58	0.04	120.8	98.51	81.49	0.15	92.68
Assam	156.16	154.5	0.02	155.4	175	175.44	-0.01	175.19
Bihar	109.66	97.58	0.11	103.92	75.57	61.36	0.14	68.97
Gujarat	110.87	38.38	0.72	114.26	121.31	38.69	0.81	120.78
Haryana	115.6	97.5	0.16	116.18	83.64	60.76	0.22	79.52
Hp	107.63	147.4	-0.38	105.73	84.55	83.16	0.01	81.63
Karnataka	114.99	109.15	0.05	112.3	87.09	67.48	0.18	79.22
Kerala	111.12	110.91	0.00	111.03	111.27	110.88	0.00	111.1
M.P.	112	109.17	0.02	111.01	102.74	78.77	0.21	96.15
Maharastra	121.67	124.59	-0.03	123.08	118.48	108.7	0.09	114.64
Orissa	126.78	122.87	0.04	125.1	103.05	83.97	0.17	95.68
Punjab	113.89	110.48	0.03	112.4	86.9	80.4	0.06	85.17
Rajasthan	98.97	81.02	0.16	93.87	85.34	50.07	0.35	79.53
Tamilnadu	119.99	120.12	0.00	120.08	111.21	108.81	0.02	110.18
Tripura	112.22	114.79	-0.02	113.34	108.03	101.4	0.06	105.07
U.P.	128.62	116.69	0.11	124.39	91.66	69.63	0.20	85.7
W.B.	116.79	111.09	0.05	114.45	93.82	76.39	0.16	87.11
India	116.09	110.68	0.05	113.93	95.32	83.13	0.11	91.06

Source: Calculated from Sixth AIES.

4.5.2. ST enrolment had also gone up over the aforesaid period of time. The growth in enrolment had been significant, at the primary stage at all India level. It was 80.40% at the primary stage in 1978 (see Table No.4.11), became 96.96% in 1986 (see Table No.4.12) and 107.56% in 1993(see Table No.4.13). The growth in enrolment in upper primary stage was not as spectacular, as it was 67.02% in 1986 and 68.89% in 1993.

Chart No.4.3



Regional picture that the data depicted was that, in 1978, educationally developed states like Karnataka (33.77%) and Maharasthra (58.1%) had performed worse than the educationally underdeveloped states like Bihar (109.88%) and Rajasthan (83.40%). Same trend also persisted in case to upper primary level. 1986 data showed that poor performance by Karnatka (64.82% in primary, 57.68% in upper primary) and Maharasthra (90.53% in primary 56.62% in upper primary) continued. Data for 1993 showed that so called educationally under developed states like Bihar (113.35% in primary and 87.27% middle stage). Rajasthan (87.48% in primary and 90.83% in upper primary) had performed well in comparison to some of the educationally developed states like Karnataka (83.87% in primary and 63.97% in Upper Primary). Two educationally underdeveloped states like Madhya Pradesh and Orissa had improved their positions in terms of ST enrolment over the year. But their successes were not replicated in case of some of the educationally developed states.

Chart No.4.4

Enrolment of Schedule Tribes at Middle Level

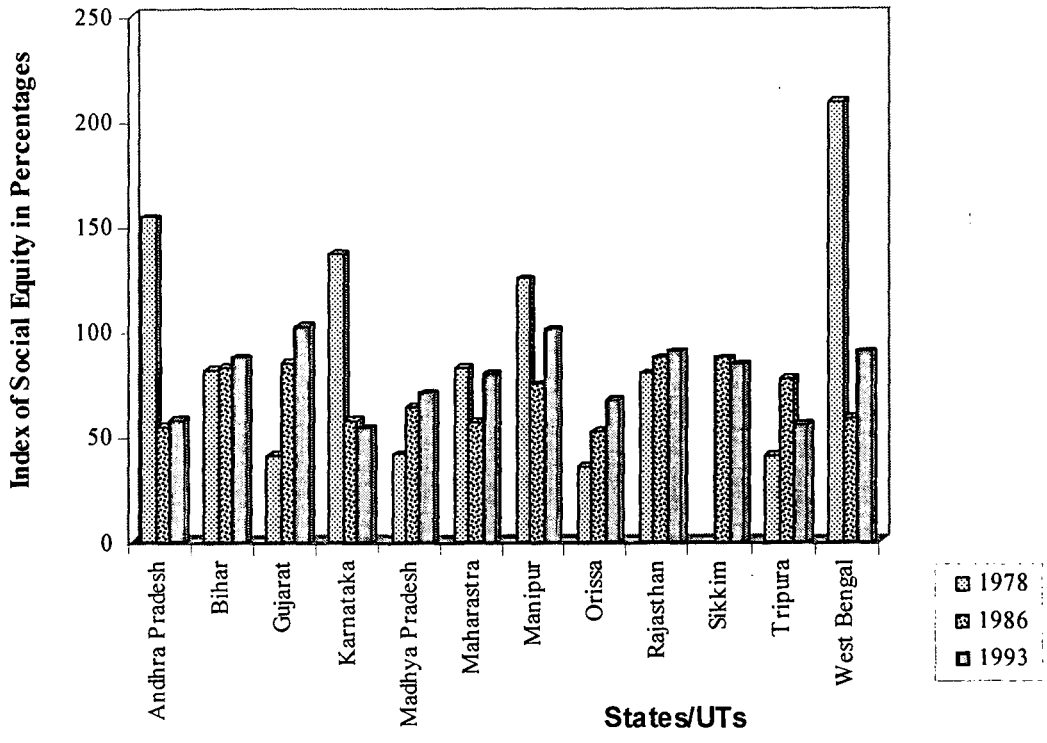


Table No. 4.11

Index of Social Equity (ST. Community) (1978)

	Primary				Upper Primary			
States/Uts	**Boys**	**Girls**	**Total**	**Gender Disparity Index**	**Boys**	**Girls**	**Total**	**Gender Disparity Index**
A.P.	80.75	67.26	75.66	0.13	154.23	148.41	153.39	0.07
Bihar	107.74	118.36	109.88	-0.09	90.13	41.57	81.34	0.50
Gujarat	84.72	79.55	82.53	0.05	45.44	32.23	40.85	0.18
Karnataka	34.82	32.29	33.77	0.04	153.54	97.72	136.50	0.54
M.P.	70.22	56.67	65.65	0.14	45.82	24.21	41.57	0.33
Maharastra	63.57	50.00	58.10	0.15	88.44	67.74	82.46	0.19
Manipur	119.97	125.03	122.14	-0.05	4.17	5.46	4.64	-0.12
Orissa	93.76	67.74	83.72	0.24	41.14	22.97	35.88	0.30
Rajasthan	103.10	41.28	83.40	0.61	96.47	22.14	79.84	0.87
Sikkim	70.86	132.22	93.45	-0.55	9.68	8.22	9.12	0.07
Tripura	96.46	65.35	83.81	0.28	43.57	37.22	41.23	0.09
West Bengal	80.56	55.11	69.80	0.25	224.95	181.47	208.24	-
India	80.38	76.47	80.04	0.04	130.73	105.92	126.93	0.22

Source: Calculated from Fourth AIES.

Table No. 4.12
Index of Social Equity (ST. Community) (1986)

	Primary				Upper Primary			
States/ Uts	Boys	Girls	Gender Disparity Index	Total	Boys	Girls	Gender Disparity Index	Total
A.P.	97.19	79.11	0.16	89.8	60.22	40.16	0.23	54.23
Bihar	98.84	104.94	-0.05	100.27	80.71	89.85	-0.08	82.09
Gujarat	102.04	97.72	0.04	100.03	85.9	83.11	0.02	84.61
Karnataka	67.12	61.85	0.05	64.82	60.88	52.01	0.10	57.68
M.P.	88.97	76	0.12	83.61	67.46	55.12	0.13	63.95
Maharastra	96.43	82.97	0.12	90.53	64.19	43.5	0.23	56.62
Manipur	119.85	116.54	0.03	118.3	72.03	78.81	-0.06	74.81
Orissa	90.78	71.31	0.18	82.5	53.91	50.16	0.04	52.03
Rajasthan	118.52	76.96	0.37	101.35	103.35	43.99	0.58	87.08
Sikkim	89.35	88.07	0.01	88.64	78.72	86.59	-0.07	87.08
Tripura	106.35	88.87	0.15	98.44	85.39	65.61	0.18	77.1
West Bengal	90.03	69.76	0.18	81.06	70.39	37.7	0.37	58.24
India	101.7	90.27	0.10	96.76	71.99	58.05	0.14	67.02

Source: Calculated from Fifth AIES (1986)

Table No. 4.13
Index of Social Equity (ST. Community) (1993)

	Primary				Upper Primary			
States/ Uts	Boys	Girls	Gender Disparity Index	Total	Boys	Girls	Gender Disparit y Index	Total
A.P.	121.71	96.55	0.22	110.69	67.75	38.51	0.33	57.66
Bihar	110.91	120.05	-0.08	113.3	84.65	97.98	-0.12	87.27
Gujarat	142.54	128.99	0.14	136.5	111.42	87.22	0.21	101.88
Karnataka	88.19	78.74	0.08	83.87	65.71	61.93	0.04	63.97
M.P.	112.01	101.23	0.09	106.93	77	61.55	0.15	70.57
Maharastra	113.88	108.51	0.05	111.36	81.18	77.02	0.04	79.26
Manipur	105.43	104.33	0.01	104.89	100.06	101.47	-0.01	100.71
Orissa	94.3	77.74	0.15	88.91	71.55	48.22	0.24	66.92
Rajasthan	87.72	87.29	0.00	87.48	84.89	96.16	-0.10	90.38
Sikkim	107.89	96.57	0.10	102.58	89.96	76.91	0.12	84.07
Tripura	93.38	72.93	0.18	83.82	66.8	38.56	0.32	55.18
West Bengal	88.52	77.59	0.10	83.13	96.71	83.73	0.11	90.36
India	111.63	102.95	0.08	107.56	109.74	75.01	0.31	68.89

Source: Calculated from Sixth AIES.

So, the conclusion that can be drawn is that, the educationally developed states had also faltered somewhere to bring the ST population residing in these states, into the fold of formal elementary education. Unlike SCs, STs, are concentrated in the relatively remote pockets. In most cases their culture and language is also different from the non-tribal population in the surrounding areas (Sridhar, 1996, p.337). So, in order to bring them into the fold of formal educational it is necessary to dispel the feeling of alienation that persist among the tribal population in the society and special strategies like curriculum development and provision of educational instruction in tribal language should be undertaken. Also recruitment of more number of tribal teachers can be instrumental in ensuring more tribal participation in elementary education.

4.5.3. Gender Disparities In SC/ST Enrolment

One of the major reasons behind low enrolment of SCs and STs in formal educational system is SCs/ STs in almost all states was that Index of Social Equity was less in case of girls and in the upper primary stage gender disparity was even higher. But the gender disparities in enrolment in case of SC communities had gone down over a period of time. At all India level the gender disparity index for the primary stage was 0.11 (see Table No.4.8) in 1978; had gone done to 0.07 in 1986 (see Table No.4.9) and to 0.05 in 1993(see Table No.4.10) for the **SC communities**. The corresponding figures for the upper primary stage were 0.19, 0.25 and 0.11. So, in 1986 there was in increase in the gender disparity in enrolment at the upper primary level. Though it declined subsequently, but that decline was not any match for the level attained at the primary level in abolition of gender disparity at the primary stage of education.

At the regional level, gender disparity at the primary stage of education was very high in Rajasthan (0.54 in 1978, 0.49 in 1986) in case of SC enrolment. In Sixth Survey it had shown a significant decline. Bihar had shown significant decline (0.39 in 1978, 0.30 in 1986 and 0.11 in 1993) Maharasthra (0.31) which was an educationally developed state, showed very high disparity in 1978. It declined subsequently and even tilted in favour of girls in 1993.

At the upper primary stage, most educationally developed states like Haryana (0.42), Himachal Pradesh (0.25), including educationally underdeveloped states like Rajasthan (0.80), Uttar Pradesh (0.43), Bihar (0.46) and Madhya Pradesh (0.37), showed high gender disparity in 1978. Since then, for some of the states scenario had

changed as the disparity index value had been showing considerable decline. In 1993 Bihar (0.19), Orissa (0.17), Himachal Pradesh (0.01), Punjab (0.06), Maharasthra (0.09) had made remarkable progress in ensuring more female participation in education from the SC communities. But, some of the states like Uttar Pradesh (0.20), Haryana (0.22), Madhya Pradesh (0.21), and Rajasthan (0.35) failed to ensure more gender sensitive environment among SCs in order to seek their participation in formal elementary education. Gender disparity Index showed very high values at the upper primary stage in 1986. Some of the educationally developed states like Karnataka (0.48) and Kerala (0.34) which had significant disparity at the upper primary level. The Sixth AIES data had reflected that they had successfully arrested the adverse trend.

In case of **ST enrolment**, the situation was even more dramatic. At the all India level, 1978 figure showed that gender disparity at the primary level was low as 0.04 but it was 0.22 in the upper primary level. In 1986, the figure surged up to 0.10 at the primary level but declined to 0.07 at the upper primary level. While a further decline was noticed in 1993 in case of primary stage (0.08), at the upper primary stage it was recorded as 0.31. This staggering rise in gender disparity at the upper primary level of education can be attributed to the fact that enrolment of boys increased at a much faster rate while enrolment of girls actually could not keep pace with the prevailing trend. At the state level some of the northeastern states like Sikkim (-0.55), Manipur (-0.05) had shown that enrolment figures were actually in favour of women. One of the most striking features, which the regional pattern revealed was that, an educationally backward state like Bihar had shown very high gender disparity in the enrolment among SCs as well as all communities. But in case of STs the gender disparity values were negative in all cases at both stages except for 1978 figure for the upper primary stage. In case of Rajasthan also gender disparity had gone down significantly over the period in consideration. Madhya Pradesh and Orissa still had high gender disparity among STs, especially in enrolment at upper primary stage. In case of same states the erratic trend was displayed. That could be attributed to the over reporting by the educational institutions time to time and credibility of this data can be questioned on this ground.

Nevertheless, it is evident from this analysis that since independence, considerable efforts had been made to provide formal education to the weaker sections of the society and that had been partially successful in some regions. In other

areas, these communities are still confined in backwaters. Exclusion of women of weaker section has been proved detrimental to the universalistion of elementary education among the weaker sections.

It is very important to note that while interpreting the data for SC/ST enrolment it should be borne in mind that these figures are calculated on the basis of reports furnished by the schools. There is a tendency to over report by the schools as they have some vested interests. Allocation of funds and other facilities hinges upon the performance of the schools, and enrolment of children from the disadvantaged sections is one of them. Another factor that has considerable impact on the index of social equality values is that the values are inflated by the large scale presence of overage and underage children in an inefficient education system. As a matter of fact wherever the values of index of social equity had grown up to more than 100%; might be due to the presence of overage and underage children in the education system. (Aggarwal, Yash 1997).

4.6. Retention in Elementary Education

As it is important to ensure participation of every child in 6 to 14 years age group, it is also imperative to guarantee their retention in schools and completion of courses within a stipulated period of time. If universal retention is not ensured, the goal of UEE will remain elusive. It is of no use if the students withdraw from the school system in the middle of educational cycle. These students generally sink into the darkness of ignorance within a few years of their withdrawal from the school.

The term 'wastage' is used to refer to the phenomena of 'drop-puts' and 'repetition'. While 'drop-out' means premature withdrawal of the pupil from the school system, 'repetition' refers to continuance of the student in the same grade for more than year due to unsatisfactory progress. This is also called 'stagnation' or 'retardation' in educational literature. In order to address this problem of 'stagnation', Government has introduced the policy of 'non-detention' so that every child completes one grade in a year and gets promoted to the next grade in elementary level. In order to implement that system, evaluation has been made disaggregated and goes on simultaneously with teaching and learning procedure. This method is termed as 'continuous comprehensive evaluation' (N. Mishra, 2001, pp.92-93).

Widespread 'drop-out' and repetition actually lead to inefficient use of resources spent on education and it enhances the input output ratio in the education sector (Jaganathan etal, 1997, pp.34-35). The investments are also wasted in such cases. This leads to the decline in obtainable results from the meager resources spent on the elementary education.

In the present study, the focus is limited to the retention which is, complementary to the concept of 'wastage' or 'dropout'. The percentage of enrolment in fifth and eighth standard in relation to enrolment in Class-I is actually a very crude indicator of retention, at the end of primary and upper primary stage (Sixth All India Educational Survey, Main Report, 1997). Rate of repetition has been ignored as Govt. is following 'non-detention' policy in basic education and as a result of that rate of repetition is negligible.

According to the Fourth AIES data (see Table No.4.14) retention ratio was very low for the entire nation. It was only 33.86% for the primary and only 1.95% for the upper primary level. Some of the states like Kerala (12.8.83%), Rajasthan (120.9%), Lakshadweep(92.7%), Haryana(70.8%), H.P.(68.53%) had high retention ratio for almost all states. It was significantly low in case of Sikkim(11.46%),Bihar(16.33%), Andhra Pradesh (19.56%) , Karnataka (20.80%).

Analysis of data of fifth AIES (1986) (see Table No.4.15) showed that Kerala (96.72%), Goa (92.54%) along with UTs like Daman & Diu, Lakshwadweep had high retention in the primary stages. There footprints were toed by Haryana (67.39%) and H.P. (66.02%). But the northeastern states and in Rajasthan (21.83%), had very low retention. A.P. (32.92%) and Bihar (31.85%) also had moderately low values.

As we move on to upper primary level, the picture becomes even grimmer. Even at all India level, only 23.70% had been retained at the eighth grade i.e. at the completion of the middle stage according to the Fifth AIES. States like Rajasthan (12.66%), Bihar (14.05%) along with all the northeastern states and West Bengal (17.02%) have low retention. Among the UTs, Chandigarh (16.43%) showed very low retention. Even the states like Kerala (77.57%), Himachal Pradesh (70.11%), Goa (78.66%) which had relatively high retention, the values were quite low as compared to the primary level.

The states with low overall rates of retention had low retention for girls' e.g. Bihar and Rajasthan. But the northeastern states were exceptions to this trend. That

was to suggest that it was not gender insensitivity of the education system but the inefficiency in the other fields, like lack of infrastructure etc. were responsible for poor performance of the northeastern states.

1993 data revealed (see Table No.4.16) that at the all India level, there was a marginal decline in retention at the primary level from the previous survey as the figure declined to 48.89%. But, there was an increase in retention at the end of upper primary level (29.97%). At the regional level Kerala (109.93%), Goa (99.18%) performed well, followed by Haryana (78.95%) and Tamil Nadu (82.06%). These two states actually had shown considerable gain in term of magnitude of retention, especially retention of girls. Among the UTs Pondichery and Lakshadweep also had high retention at primary level. But lackluster performance by the states like Bihar (36.69%), UttarPradesh (45.6%) and Rajasthan (24.55%) along with all the northeastern states kept the all India average low.

At the upper primary level Kerala (105.75%), Goa (88.91%) maintained the upward trend, whereas other states which were doing well at the primary level failed to repeat their success e.g. Himachal Pradesh (65.05%), Haryana (56.68%), Punjab (46.25%) and Tamil Nadu (49.03%). States like Bihar (15.87%), Andhra Pradesh (17.63%), West Bengal (19.28%), Rajasthan (19.28%) and Madhya Pradesh (25.16%) along with northeastern states had displayed darker side of the picture. All these states, except northeastern states, had very low retention for women, e.g. Bihar (10.46%), Andhra Pradesh (12.43%), Rajasthan (8.69%), West Bengal (16.41%) and Madhya Pradesh (15.98%).

So the corollaries that can be revealed from the ongoing analysis are that, ensuring continuance of the children in the schools remains a formidable challenge. The challenge is even more awesome in case upper primary education and in case of girls. The educationally backward states which had achieved commendable success in terms of enrolment still remained at the backwaters with regard to retention ratio. As a result of this the long cherished goal of UEE is still eluding us.

Table No. 4.14
Retention Ratio (1978)

States/ Uts	CLASS- V				CLASS- VIII			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	25.57	19.56	23.06	0.13	11.63	5.13	9.00	0.37
Assam	27.68	22.37	25.38	0.11	14.05	9.99	12.00.	0.16
Bihar	25.04	16.33	22.46	0.21	9.28	2.35	7.00	0.61
Gujarat	35.30	27.56	32.20	0.13	14.58	9.75	13.00	0.19
Haryana	70.80	50.94	64.31	0.21	41.97	16.06	34.00	0.48
H.P.	68.53	55.21	62.87	0.14	44.69	21.02	35.00	0.39
J&K	44.95	32.51	40.67	0.17	11.66	12.62	12.00	-0.04
Karnataka	33.10	20.08	27.07	0.25	14.65	6.21	11.00	0.39
Kerala	128.83	42.44	86.88	0.83	74.32	67.92	71.00	0.06
M.P.	40.05	24.32	35.11	0.26	22.42	7.66	18.00	0.50
Maharastra	33.59	21.34	28.11	0.23	15.75	6.41	12.00	0.41
Manipur	21.77	17.23	19.69	0.11	15.14	9.93	13.00	0.20
Meghalaya	14.67	14.34	14.51	0.01	7.85	6.44	7.00	0.09
Nagaland	28.07	25.36	26.84	0.05	16.79	14.17	16.00	0.08
Orissa	41.21	30.63	36.96	0.16	17.17	7.74	13.00	0.37
Punjab	45.65	37.43	41.81	0.11	30.06	17.01	24	0.28
Rajasthan	120.19	67.76	108.02	0.47	7.19	0.78	5.00	0.98
Sikkim	20.78	11.46	16.90	0.28	0.15	0.11	1.00	0.12
Tamilnadu	69.53	56.29	63.48	0.13	5.40	2.36	4.00	0.37
Tripura	26.11	25.48	25.86	0.01	1.62	1.00	1.00	0.21
U.P.	45.55	31.65	41.25	0.20	5.01	0.93	4.00	0.74
West Bengal	20.91	16.89	19.20	0.10	1.85	1.13	2.00	0.22
A&N Island	47.72	38.06	43.12	0.13	-	-	-	0.00
Arunachal Prad.	15.98	13.02	15.02	0.10	-	-	-	0.00
Chandigarh	59.57	54.07	57.05	0.06	4.59	2.71	4.00	0.23
Dadra,N.Haveli	21.98	13.50	18.27	0.23	-	-	-	0.70
Delhi	63.14	44.03	54.57	0.21	7.71	1.73	5.00	0.66
Goa, Daman&Diu	52.60	46.80	49.97	0.07	-	-	-	0.24
Lakshadweep	92.70	69.64	82.10	0.21	-	-	-	0.00
Mizoram	31.62	27.89	29.81	0.06	-	-	-	0.00
Pondicherry	77.64	56.35	67.70	0.21	7.79	2.20	5.00	0.56
India	**37.63**	**27.95**	**33.86**	**0.15**	**2.54**	**1.02**	**2.00**	**0.40**
C.V.	61.25	50.84	56.62	84.50	123.47	167.69	132.90	82.74

Source: Calculated from Fourth AIES

Table No. 4.15
Retention Ratio (1986)

States/ Uts	Class- V				Class- VIII			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	37.24	28.59	32.92	0.14	16.98	9.07	13.03	0.29
Arunachal Prad.	31.27	26.57	28.92	0.08	16.95	11.83	14.39	0.17
Assam	35.94	30.00	32.97	0.09	18.93	15.67	17.30	0.09
Bihar	35.4	28.29	31.85	0.12	18.87	9.22	14.05	0.33
Goa	95.28	89.80	92.54	0.05	82.10	75.21	78.66	0.06
Gujarat	48.97	37.27	43.12	0.15	24.26	14.29	19.28	0.25
Haryana	77.26	57.52	67.39	0.19	59.84	25.59	42.72	0.46
H.P.	68.52	63.52	66.02	0.05	67.92	46.29	57.11	0.23
J&K	68.25	55.91	62.08	0.13	50.54	33.43	41.99	0.23
Karnataka	46.14	32.06	39.10	0.20	22.42	12.41	17.42	0.28
Kerala	98.76	94.67	96.72	0.04	78.67	76.46	77.57	0.02
M.P.	71.74	44.26	58.00	0.29	40.45	13.09	26.77	0.56
Maharastra	53.12	40.55	46.84	0.15	31.56	16.68	24.12	0.31
Manipur	52.43	45.61	49.02	0.08	34.06	23.88	28.97	0.18
Meghalaya	19.01	19.11	19.06	0.00	13.72	12.31	13.02	0.05
Mizoram	29.51	30.99	30.25	-0.03	12.02	12.19	12.11	-0.01
Nagaland	27.19	27.73	27.46	-0.01	15.36	14.20	14.78	0.04
Orissa	47.55	39.63	43.59	0.10	28.09	17.04	22.57	0.24
Punjab	64.88	61.35	63.12	0.04	46.42	35.04	40.73	0.15
Rajasthan	29.02	14.63	21.83	0.33	19.44	5.87	12.66	0.55
Sikkim	32.80	32.77	32.79	0.00	21.40	20.41	20.91	0.02
Tamilnadu	68.10	58.16	63.13	0.10	38.00	24.50	31.25	0.23
Tripura	55.56	34.84	45.20	0.26	21.88	17.67	19.78	0.10
U.P.	91.62	51.48	71.55	0.39	45.21	22.71	33.96	0.36
West Bengal	44.82	29.03	36.93	0.23	20.05	13.99	17.02	0.17
A&N Island	88.81	79.00	83.91	0.09	53.23	45.90	49.57	0.09
Chandigarh	55.01	51.54	53.28	0.04	28.56	26.12	27.34	0.04
Dadra & N.Havcli	89.40	36.88	63.14	0.55	18.92	13.93	16.43	0.14
Daman & Diu	104.08	90.81	97.45	0.12	48.01	37.83	42.92	0.13
Delhi	60.67	48.02	54.35	0.14	57.02	36.10	46.56	0.26
Lakshadweep	80.75	76.34	78.55	0.04	49.73	48.09	48.91	0.02
Pondicherry	99.43	77.04	88.24	0.20	71.51	46.91	59.21	0.26
India	65.45	39.56	52.51	0.30	29.62	17.77	23.70	0.25
C.V.	41.28	45.37	41.84	92.65	55.44	68.72	59.52	75.12

Source: Calculated from Fifth AIES

Table No. 4.16
Retention Ratio (1993)

States/ Uts	CLASS- V				CLASS- VIII			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	42.76	35.6	39.46	0.10	22.06	12.43	17.63	0.27
Arunachal Prd.	38.94	37.23	39.19	0.02	23.53	19.26	21.66	0.10
Assam	33.53	31.35	32.53	0.03	22.08	20.19	21.54	0.04
Bihar	39.28	32.17	36.69	0.11	18.96	10.46	15.87	0.28
Goa	103.38	94.67	99.18	0.08	93.11	84.41	88.91	0.08
Gujarat	62.78	52.32	58.07	0.11	34.04	22.97	29.06	0.20
Haryana	83.05	74.16	78.95	0.08	66.96	45.11	56.88	0.24
H.P.	73.73	68.74	71.3	0.05	71.22	58.52	65.05	0.13
J&.K	62.27	54.76	59.06	0.08	53.97	41.13	48.48	0.15
Karnataka	56.38	44.55	50.67	0.14	30.57	19.37	25.16	0.23
Kerala	112	107.76	109.93	0.04	105.99	105.5	105.75	0.00
M.P.	61.71	51.54	57.34	0.11	32.16	15.98	25.2	0.34
Maharastra	66.66	56.45	61.61	0.10	43.34	29.86	36.9	0.20
Manipur	49.1	47.52	48.4	0.02	35.82	33.63	34.79	0.03
Meghalaya	30.46	29.38	29.92	0.02	14.67	12.84	13.76	0.06
Mizoram	41.61	39.19	40.47	0.03	18.48	18.79	18.63	-0.01
Nagaland	37.56	39.83	38.64	-0.03	28.71	29.19	28.94	-0.01
Orissa	51.12	43.71	47.75	0.09	28.08	19.67	24.25	0.18
Punjab	76.17	69.89	73.26	0.06	51.44	40.95	46.59	0.13
Rajasthan	34.29	20.66	29.55	0.25	23.02	8.69	18.04	0.46
Sikkim	47.41	53.57	50.22	-0.07	25.31	27.81	26.45	-0.05
Tamilnadu	83.96	80.01	82.06	0.04	52.63	45.13	49.03	0.09
Tripura	41.81	39.89	40.93	0.03	22.91	20.67	21.88	0.05
U.P.	49.18	39.68	45.6	0.12	35.19	21.41	29.99	0.25
West Bengal	42.55	35.44	39.23	0.10	22.28	15.85	19.28	0.16
A&N Island	78.34	78.98	78.64	-0.01	51.9	49.42	50.74	0.03
Chandigarh	66.78	58.33	62.84	0.09	49.73	45.33	47.68	0.05
Dadra, N.Haveli	44.64	33.35	39.87	0.16	23.36	16.41	20.42	0.17
Daman & Diu	86.91	83.2	85.22	0.03	60.85	57.07	59.12	0.04
Delhi	72.88	69.94	71.45	0.03	56.93	46.97	52.1	0.11
Lakshadweep	95.7	88.37	92.2	0.06	77.22	59.83	68.92	0.17
Pondicherry	109.24	110.54	109.86	-0.01	88.65	78.82	83.92	0.09
India	51.67	45.21	48.89	0.08	31.89	22.78	27.97	0.17
C.V.	37.56	41.84	38.88	95.82	55.79	65.99	58.97	84.37

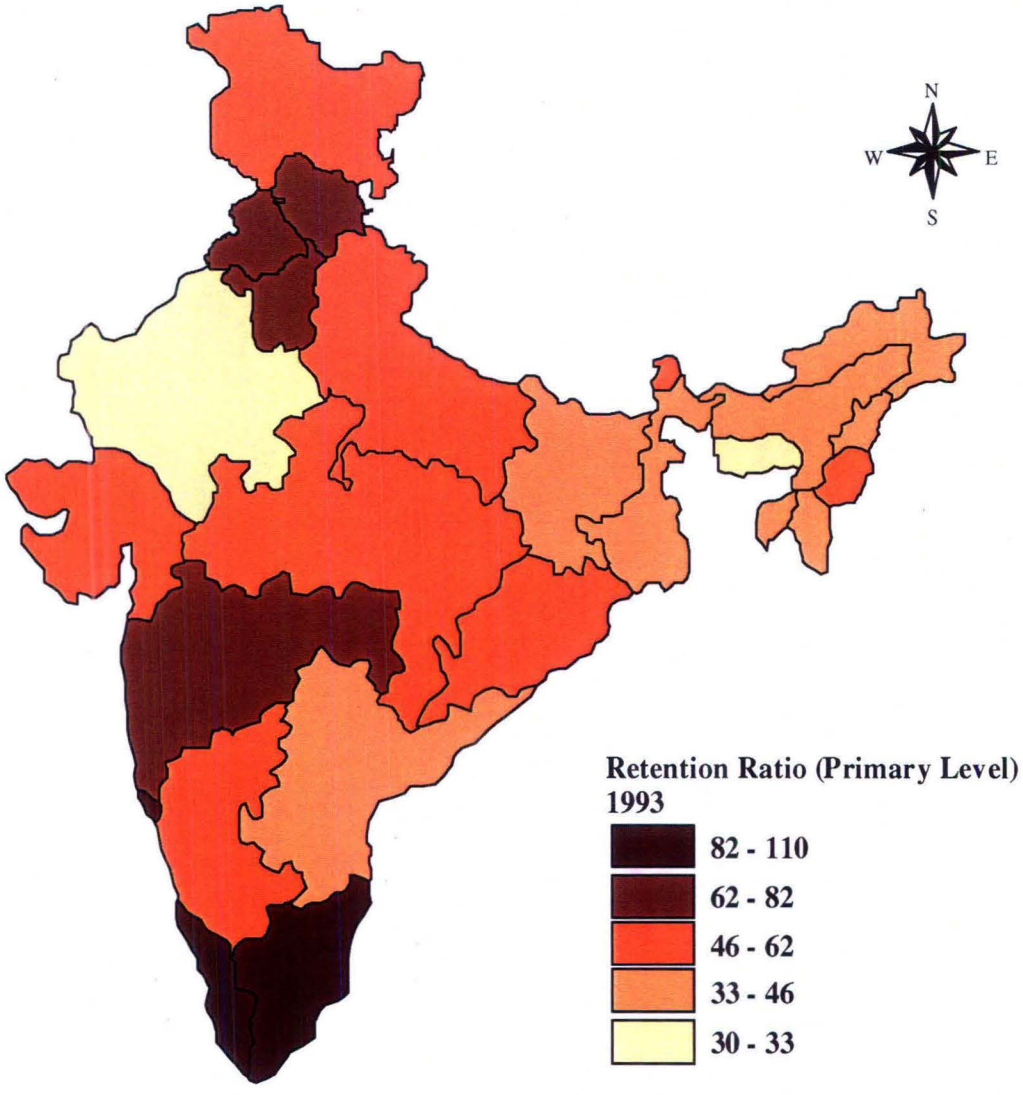
Source: Calculated from Sixth AIES.

4.6.1. Gender Gap in Retention in Elementary Schools

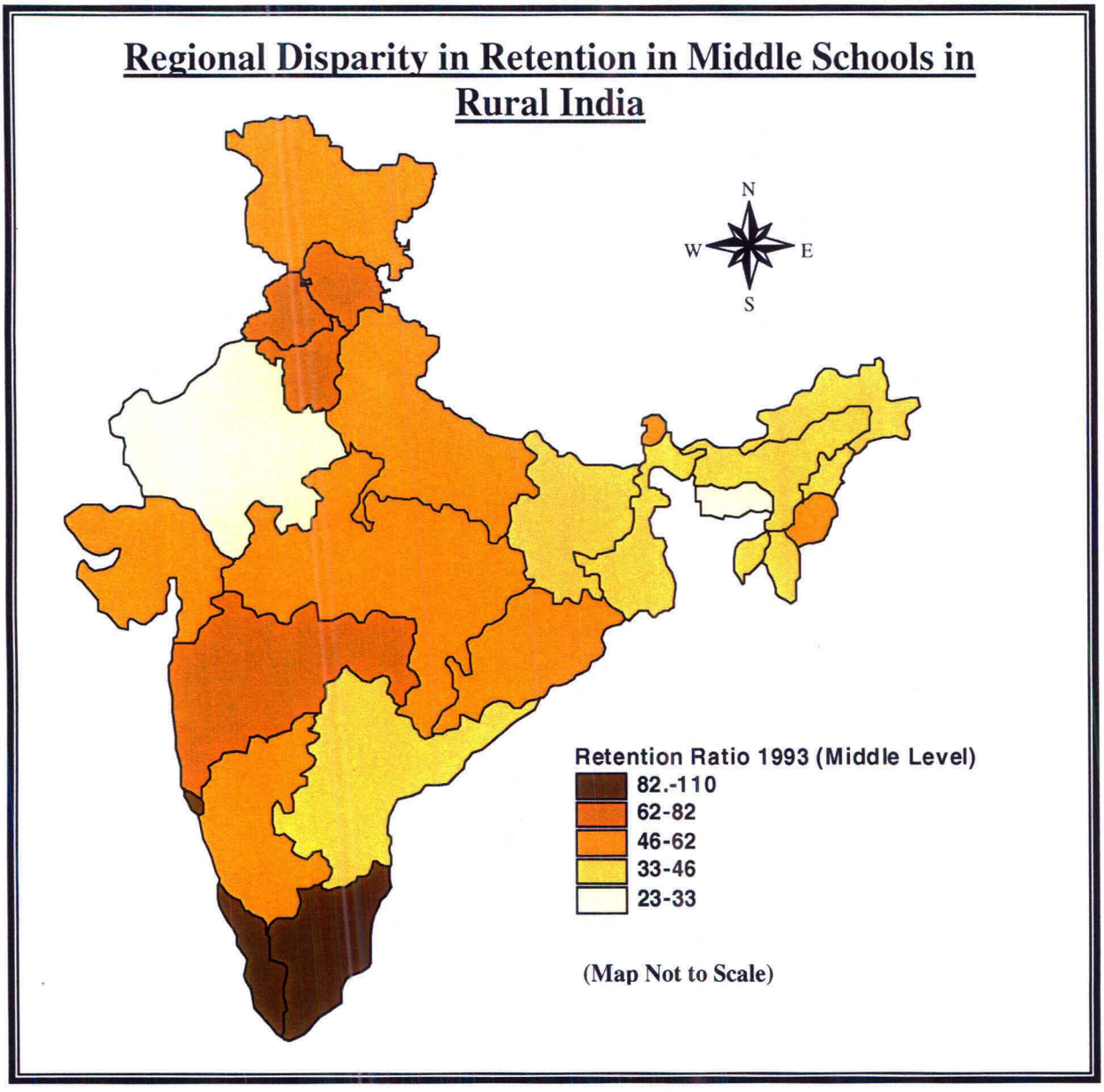
Empirical evidences suggested that gender disparity was one of the reasons for low retention in elementary education system. At all India level gender disparity index value was 0.21 for the primary and 0.56 for the upper primary level. It declined subsequently in 1986. This trend persisted as it diminished from 0.30 to 0.08 in

Map No.4.4

Regional Disparity in Retention in Primary Schools in Rural India (1993)



Map No.4.5


Regional Disparity in Retention in Middle Schools in Rural India
N
W
E
S
Retention Ratio 1993 (Middle Level)
82.-110
62-82
46-62
33-46
23-33
(Map Not to Scale)

primary stage and 0.25 to 0.17 in upper primary level, between Fifth and Sixth AIES (see Table No.4.14, 4.15 & 4.16).

Fourth AIES data revealed that among the states Kerala (0.81) and Rajasthan (0.42)had highest level of gender disparity at the primary level. It was high for Kerala as retention ratio for the boys was very high and the girls were lagging way behind them.

According to Fifth AIES data, gender disparity was very high in Uttar Pradesh (0.39) and West Bengal (0.23), Madhya Pradesh (0.29) at the primary level. For Bihar (0.12) it was not very high, as retention of boys and girls both are very low. In upper primary stage Bihar (0.33), Uttar Pradesh (0.36) and Rajasthan (0.55) had shown very high level of gender disparity. Along with these states Andhra Pradesh (0.29), Haryana (0.46) and Himachal Pradesh (0.24) showed high gender disparity, which was not prevalent in the primary stage.

Sixth AIES data (1993) (see Table No.4.16) reflected a drastic decline in gender disparity index at the primary stage. Kerala (0.04) and northeastern states were showing low level of disparity. Except for Rajasthan (0.25) all then other BIMARU states along with Andhra Pradesh (0.10), and Orissa (0.10) had also experienced a perceptible decline in the gender disparity level. At the upper primary stage, while for Kerala it is nil and for northeastern states either it was negative or negligible. On the contrary, the educationally backward states like Rajasthan (0.46), Mandhya Pradesh (0.34), Bihar (0.28), Andhra Pradesh (0.27) and Orissa (0.25) had been experiencing very high gender disparity in retention at the middle stage.

4.6.2. Retention Ratio among the Scheduled Castes and the Scheduled Tribes

Studies suggested that dropout and stagnation were even more prevalent among the disadvantaged sections i.e. among SCs / STs. AIES data for 1978, 1986 and 1993 showed that for **SC communities** at all India level retention had gone up form 25.93% in 1978 (see Table No.4.17) to 29.14% in 1986 (see Table No.4.18)and to 41.52% in 1993(see Table No.4.19).

Data for 1978 had revealed that retention ratio was high in Kerala (86.43%), Himachal Pradesh (52.94%) and Tamil Nadu (51.75%) It is very low in case of Andhra Pradesh (13.99%), West Bengal (14.34%) and Bihar (15.71%), at the

primary level. But at the upper primary level it is abysmally low for states like Andhra Pradesh (3.96%), Rajasthan (2.22%), West Bengal (6.81%) and Haryana (6.85%). Except for Kerala (59.71%), the only other states which had significant retention ratio, was Tamil Nadu (22.25%), but was lagging way behind Kerala.

Table No.4.17

Retention Ratio (SC. Community) (1978)

	CLASS- V				CLASS- VIII			
States/ Uts	**Boys**	**Girls**	**Total**	**Gender Disparity Index**	**Boys**	**Girls**	**Total**	**Gender Disparity Index**
A.P.	15.99	11.33	13.99	0.16	5.29	2.19	3.96	0.39
Assam	26.43	20.57	23.93	0.12	11.73	8.30	10.27	0.16
Bihar	17.86	8.14	15.71	0.36	5.99	0.88	4.86	0.85
Gujarat	31.82	21.03	27.70	0.21	16.02	7.45	12.75	0.35
Haryana	3.73	29.93	4.31	-0.97	1.75	6.35	1.85	-0.57
H.P.	58.20	44.43	52.94	0.16	29.67	10.25	22.25	0.51
J&K	40.23	27.23	35.62	0.20	21.44	5.61	15.83	0.62
Karnataka	44.11	8.05	27.90	0.83	6.98	2.01	4.74	0.55
Kerala	89.22	83.43	86.43	0.05	60.40	58.97	59.71	0.01
M.P.	32.92	15.79	28.62	0.36	16.09	4.16	13.09	0.61
Maharastra	26.42	14.40	21.32	0.29	12.16	4.07	8.72	0.49
Manipur	16.69	11.83	14.52	0.16	10.73	7.99	9.50	0.13
Meghalaya	13.74	8.04	11.11	0.25	9.92	8.04	9.05	0.10
Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Orissa	30.56	18.20	25.83	0.26	9.14	2.30	6.52	0.61
Punjab	39.84	7.94	24.98	0.78	16.37	5.94	11.51	0.46
Rajasthan	66.55	20.34	58.89	0.64	32.15	5.33	27.71	0.85
Sikkim	12.01	7.83	10.20	0.20	2.54	1.81	2.22	0.15
Tamilnadu	59.34	42.61	51.75	0.19	21.45	9.50	16.03	0.38
Tripura	19.66	17.12	18.62	0.07	8.61	5.19	7.21	0.23
U.P.	37.35	19.23	32.82	0.33	22.89	5.69	18.59	0.64
West Bengal	15.71	12.18	14.34	0.12	7.66	5.47	6.81	0.15
A&N Island	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aunachal Prd.	25.00	14.29	23.08	0.27	7.81	0.00	6.41	-
Chandigarh	50.40	51.75	51.05	-0.02	8.00	4.39	6.28	0.27
Dadra,N.Haveli	50.00	38.55	43.62	0.14	19.70	2.41	10.07	0.95
Delhi	47.47	25.55	38.58	0.33	27.03	7.23	19.00	0.62
Goa, Daman &Diu	42.64	35.07	39.71	0.11	16.22	12.32	14.71	0.13
Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pondicherry	62.79	35.80	51.44	0.32	35.72	12.21	25.84	0.52
India	**29.78**	**19.25**	**25.93**	**0.22**	**14.38**	**6.41**	**11.47**	**0.37**
C.V.	71.00	85.81	74.23	156.36	90.85	155.65	101.48	96.40

Source: Calculated from Fourth AIES

In 1986, the states with high retention at primary stage, apart from Kerala (70.24%), were Himachal Pradesh (50.60%) and Punjab (60.54%). Other states also improved the situations moderately in the field of retention. At the upper primary stage, educationally underdeveloped states like Rajasthan (11.18%), Andhra Pradesh (5.93%), and Orissa (8.47%) were still lagging far behind the advanced states like Kerala.

Table No. 4.18
Retention Ratio (SC. Community) (1986)

	Class- V				Class- V			
States/ Uts	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	22.58	15.71	19.93	0.17	7.58	3.30	5.93	0.37
Arunachal Pradesh	28.24	27.83	28.08	0.01	15.63	10.70	13.68	0.18
Assam	32.35	28.82	30.70	0.06	20.13	15.94	18.17	0.11
Bihar	30.15	20.56	26.55	0.19	13.49	7.64	11.29	0.26
Goa	7.69	14.29	10.00	-0.28	23.08	42.86	30.00	-0.32
Gujarat	38.71	27.81	33.88	0.17	18.34	11.55	15.33	0.22
Haryana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H.P.	57.55	41.15	50.60	0.19	45.70	27.38	37.93	0.27
J&K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Karnataka	43.03	27.78	36.03	0.23	20.42	9.10	15.22	0.38
Kerala	68.84	71.83	70.24	-0.03	44.42	45.17	44.77	-0.01
M.P.	5.44	33.18	15.91	-0.85	25.53	8.57	19.13	0.51
Maharastra	34.67	22.57	29.48	0.22	18.49	8.27	14.11	0.37
Manipur	35.59	31.60	33.70	0.06	17.31	15.49	16.45	0.05
Meghalaya	18.75	17.70	18.23	0.03	13.98	12.26	13.12	0.06
Mizoram	29.51	30.99	30.20	-0.03	12.02	12.19	12.10	-0.01
Nagaland	27.19	27.73	27.45	-0.01	15.36	14.20	14.81	0.04
Orissa	24.96	15.79	21.28	0.22	11.77	4.79	8.97	0.41
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	20.07	6.55	16.47	0.52	14.25	2.69	11.18	0.75
Sikkim	36.11	33.23	34.75	0.04	21.43	20.11	20.81	0.03
Tamilnadu	62.94	57.47	60.54	0.06	25.77	12.98	20.16	0.33
Tripura	24.23	19.34	22.12	0.11	12.95	8.28	10.93	0.20
U.P.	49.38	29.56	41.63	0.28	32.18	13.98	25.06	0.41
West Bengal	29.00	18.29	24.73	0.23	14.55	5.99	11.14	0.40
A&N Island	122.91	95.30	108.55	0.24	70.18	56.38	63.00	0.14
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dadra & N.Haveli	51.94	30.51	42.70	0.29	17.82	12.58	15.56	0.16
Daman & Diu	64.62	70.81	67.42	-0.06	18.46	9.94	14.61	0.29
Delhi	157.14	90.00	117.65	0.65	142.86	170.00	158.82	-0.36
Lakshadweep	72.53	75.77	74.09	-0.03	49.37	35.00	42.43	0.19
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
India	33.11	23.23	29.14	0.18	16.79	8.89	13.62	0.29
C.V.	91.88	83.85	84.33	292.39	115.14	165.19	134.24	133.58

Source: Calculated from Fifth AIES.

Table No. 4.19
Retention Ratio (SC. Community) (1993)

States/ Uts	Class- V				Class- VIII			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	35.58	26.39	31.35	0.15	15.43	6.97	11.54	0.36
Arunachal Pradesh	39.42	18.75	31.55	0.38	36.54	23.44	31.55	0.23
Assam	40.43	38.27	39.44	0.03	28.26	26.47	27.45	0.03
Bihar	30.21	21.02	27.09	0.18	11.26	4.47	8.95	0.42
Goa	73.17	47.18	60.50	0.27	49.27	43.08	46.25	0.08
Gujarat	69.26	56.80	63.50	0.13	41.74	24.54	33.78	0.28
Haryana	66.86	58.52	63.06	0.08	42.05	24.42	34.01	0.28
H.P.	64.41	57.67	61.20	0.07	50.32	37.83	44.37	0.16
J&K	55.93	50.47	53.46	0.06	46.91	35.71	41.84	0.15
Karnataka	42.35	26.76	34.79	0.24	19.67	9.45	14.71	0.34
Kerala	124.9	120.90	122.9	0.04	112.07	110.56	111.33	0.01
M.P.	57.47	42.74	51.12	0.17	28.02	9.35	19.97	0.52
Maharastra	63.85	32.51	45.39	0.38	41.58	16.46	26.78	0.47
Manipur	43.39	54.50	48.64	-0.13	37.81	39.49	38.60	-0.02
Meghalaya	61.07	49.58	55.60	0.13	36.64	21.85	29.60	0.26
Mizoram	7.69	0.00	4.55	0.00	0.00	0.00	0.00	0.00
Nagaland	32.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Orissa	47.98	36.43	42.73	0.15	21.47	12.15	17.23	0.27
Punjab	62.49	54.45	58.80	0.08	33.55	25.31	29.77	0.14
Rajasthan	30.78	13.62	25.34	0.40	18.94	4.43	14.34	0.66
Sikkim	33.85	36.35	35.01	-0.04	12.78	14.54	13.60	-0.06
Tamilnadu	77.89	72.25	75.16	0.05	45.95	36.91	41.58	0.12
Tripura	44.20	40.14	42.29	0.05	23.90	19.18	21.68	0.11
U.P.	44.89	30.38	39.57	0.21	25.68	12.38	20.81	0.35
West Bengal	33.99	24.10	29.38	0.17	16.16	9.21	12.92	0.26
A&N Island	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chandigarh	67.83	51.40	60.38	0.17	35.49	34.80	35.18	0.01
Dadra & N.Haveli	72.22	10.19	17.61	1.02	91.67	6.42	16.61	1.41
D&D	92.86	111.54	101.85	-0.16	132.14	100.00	116.67	0.29
Delhi	71.13	69.87	70.55	0.01	40.51	37.06	38.93	0.05
Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pondicherry	111.53	132.90	121.78	-0.20	79.49	80.51	79.98	-0.01
India	**45.54**	**36.09**	**41.52**	**0.13**	**24.77**	**15.39**	**20.78**	**0.23**
C.V.	52.25	75.59	64.05	168.68	83.32	104.27	90.11	125.85

Source: Calculated from Sixth AIES

In 1993, though the overall rates had increased, still states like Bihar (27.04%) and Rjasthan (25.34%) had very low retention ratio in the primary stage. On the other hand, Kerala (122.99%) and Tamil Nadu (75.16%) rates were almost at

par with the other sections of the society. But at the upper primary stage except for Tamil Nadu and Kerala no other states did well. Andhra Pradesh (11.54%), Bihar (8.95%), West Bengal (12.92%) still had very low rates of retention for SC population.

Gender disparities in retention, among SC communities had distinctly gone down in terms of magnitude from 0.22 in 1978 (see Table No.4.17) to 0.18 in 1986 (see Table No.4.18) to 0.13 in 1993 (see Table No.4.19) for primary and 0.37, 0.29 and 0.23 for upper primary sections in three respective surveys Rajasthan, Bihar, Orissa, Uttar Pradesh had very high gender disparity in both stages for all the years. For states like Karnataka and Madhya Pradesh the figures were very high in 1978 for both stages. It declined for primary stage but remained relatively high for the upper primary stage.

The analysis of data for **retntion ratio** provided for **ST population** showed that retention ratios were very low all states in 1978 (see Table No.4.20). Even among the states, were in relatively better positions, like Kerala (48.81%), Himachal Pradesh (47.94%) and Tamil Nadu (40.67%) and Lakshadweep (84.44%), Andaman and Nicobar (49.42%), for them also the figures were very low as compared to the figures for all communities. At the upper primary level even Kerala (29.45%) and Lakshawdeep (49.67%) also had very low retention.

Since then the figures had improved in 1986 (see Table No.4.21), and the improvement was more in case of educationally developed states, like Kerala (70.29%), Himachal Pradesh (50.6%), Tamil Nadu (60.54%) and for UTs like Delhi (117.65%) at the primary stage. At the upper primary stage it was still very low even in case of Kerala (44.77%), Himachal Pradesh (37.93%) and Goa (30.00%). In the primary stage figures were low for Rajasthan (10.47%), Goa (10.00%), and Andhra Pradesh (19.43%). It remained low even at upper primary stage for Andhra Pradesh (5.93%), Bihar (11.24%), and Rajasthan (11.18%).

Sixth AIES data for 1993 (see Table No.4.22) showed a lot of improvement in primary stage especially in case of Kerala (96.46%), Goa (81.25%), Tamil Nadu (61.61%) and Himachal Pradesh (63.11%). At the upper primary stage, expect for Goa (131.35%), Kerala (72.26%), Lakshadweep (67.33%) all the other states failed to perform, had portrayed a dismal picture.

Table No. 4.20
Retention Ratio (ST. Community) (1978)

States/Uts	CLASS- V				CLASS- VIII			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	10.40	6.08	8.77	0.24	3.18	0.85	2.30	0.58
Assam	23.61	15.78	20.13	0.19	11.76	7.32	9.79	0.22
Bihar	12.96	8.69	11.62	0.18	4.06	2.17	3.47	0.28
Gujarat	20.30	13.45	17.55	0.19	7.86	4.36	6.45	0.26
Haryana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H.P.	58.30	31.66	47.94	0.34	26.08	8.21	19.13	0.54
J & K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Karnataka	26.23	14.49	20.97	0.29	12.49	3.73	8.56	0.54
Kerala	49.75	47.58	48.81	0.03	29.69	29.14	29.45	0.01
M.P.	26.71	14.10	23.11	0.31	10.78	4.55	9.01	0.39
Maharastra	17.38	10.37	14.67	0.24	6.32	2.70	4.92	0.38
Manipur	22.25	20.91	21.64	0.03	12.37	9.52	11.08	0.12
Meghalaya	17.20	14.43	15.83	0.08	7.38	6.33	6.86	0.07
Nagaland	27.20	25.20	26.29	0.04	16.54	13.96	15.36	0.08
Orissa	18.84	9.32	15.50	0.33	6.13	1.62	4.55	0.59
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	115.05	27.40	99.57	0.93	59.95	5.86	50.40	1.15
Sikkim	17.95	11.73	15.33	0.20	6.45	4.07	5.45	0.21
Tamilnadu	44.71	34.77	40.67	0.14	10.50	3.88	7.81	0.45
Tripura	16.76	12.61	15.33	0.13	6.30	4.75	5.77	0.13
U.P.	44.93	24.17	38.16	0.32	20.67	6.04	15.90	0.57
West Bengal	14.31	9.24	12.52	0.20	7.21	4.16	6.13	0.25
A & N Island	54.67	43.48	49.92	0.13	33.60	21.74	28.57	0.22
Arunachal Pradesh	15.07	11.80	14.04	0.11	6.54	3.46	5.57	0.28
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dadra &N.Haveli	14.87	5.60	10.93	0.45	5.11	1.48	3.56	0.55
Delhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Goa, Daman & Diu	11.75	4.27	8.93	0.46	3.44	0.95	2.50	0.57
Lakshadweep	94.36	72.64	84.44	0.19	62.65	34.24	49.67	0.34
Mizoram	31.65	27.91	29.84	0.06	21.26	17.54	19.46	0.09
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
India	**20.51**	**12.73**	**17.62**	**0.23**	**8.51**	**4.51**	**7.02**	**0.28**
C.V.	102.17	98.46	102.43	102.28	121.84	129.53	121.96	92.65

Source: Calculated from Fourth AIES.

Table No. 4.21
Retention Ratio (ST. Community) (1986)

States/ Uts	Class- V				Class- V			
	Boys	Girls	Total	Gender Disparity Index	Boys	Girls	Total	Gender Disparity Index
A.P.	22.58	15.71	19.93	0.17	7.58	3.30	5.93	0.37
Arunachal Prad.	28.24	27.83	28.08	0.01	15.63	10.70	13.68	0.18
Assam	32.35	28.82	30.70	0.06	20.13	15.94	18.17	0.11
Bihar	30.15	20.56	26.55	0.19	13.49	7.64	11.29	0.26
Goa	7.69	14.29	10.00	-0.28	23.08	42.86	30.00	-0.32
Gujarat	38.71	27.81	33.88	0.17	18.34	11.55	15.33	0.22
Haryana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H.P.	57.55	41.15	50.60	0.19	45.70	27.38	37.93	0.27
J&K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Karnataka	43.03	27.78	36.03	0.23	20.42	9.10	15.22	0.38
Kerala	68.84	71.83	70.24	-0.03	44.42	45.17	44.77	-0.01
M.P.	5.44	33.18	15.91	-0.85	25.53	8.57	19.13	0.51
Maharastra	34.67	22.57	29.48	0.22	18.49	8.27	14.11	0.37
Manipur	35.59	31.60	33.70	0.06	17.31	15.49	16.45	0.05
Meghalaya	18.75	17.70	18.23	0.03	13.98	12.26	13.12	0.06
Mizoram	29.51	30.99	30.20	-0.03	12.02	12.19	12.10	-0.01
Nagaland	27.19	27.73	27.45	-0.01	15.36	14.20	14.81	0.04
Orissa	24.96	15.79	21.28	0.22	11.77	4.79	8.97	0.41
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	20.07	6.55	16.47	0.52	14.25	2.69	11.18	0.75
Sikkim	36.11	33.23	34.75	0.04	21.43	20.11	20.81	0.03
Tamilnadu	62.94	57.47	60.54	0.06	25.77	12.98	20.16	0.33
Tripura	24.23	19.34	22.12	0.11	12.95	8.28	10.93	0.20
U.P.	49.38	29.56	41.63	0.28	32.18	13.98	25.06	0.41
West Bengal	29.00	18.29	24.73	0.23	14.55	5.99	11.14	0.40
A&N Island	122.91	95.30	108.55	0.24	70.18	56.38	63.00	0.14
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dadra & N. Haveli	51.94	30.51	42.70	0.29	17.82	12.58	15.56	0.16
Daman & Diu	64.62	70.81	67.42	-0.06	18.46	9.94	14.61	0.29
Delhi	157.14	90.00	117.65	0.65	142.86	170.00	158.82	-0.36
Lakshadweep	72.53	75.77	74.09	-0.03	49.37	35.00	42.43	0.19
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
India	**33.11**	**23.23**	**29.14**	**0.18**	**16.79**	**8.89**	**13.62**	**0.29**
C.V	91.88	83.85	84.33	292.39	115.14	165.19	134.24	133.58

Source: Calculated from Fifth AIES

Table No. 4.22
Retention Ratio (ST. Community) (1993)

	Class- V				Class- VIII			
States/ Uts	Boys	Girls	Gender Disparity Index	Total	Boys	Girls	Gender Disparity Index	Total
A.P.	19.95	12.98	0.20	17.05	8.04	2.78	0.47	5.85
Arunachal Prad.	36.03	34.90	0.02	35.53	21.32	16.84	0.11	19.33
Assam	29.75	25.74	0.07	27.82	19.56	16.80	0.07	18.23
Bihar	31.62	25.09	0.12	29.01	12.53	7.61	0.23	10.56
Goa	62.50	100.00	-0.34	81.25	175.00	87.50	0.95	131.25
Gujarat	47.57	37.75	0.13	43.11	25.09	17.31	0.18	21.56
Haryana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H.P.	66.55	6.52	1.17	13.09	59.83	5.08	1.21	11.08
J&K	52.44	43.32	0.11	48.53	33.40	20.54	0.24	27.89
Karnataka	43.42	30.77	0.18	37.58	20.47	10.95	0.29	16.07
Kerala	95.03	97.97	-0.03	96.46	73.40	71.05	0.02	72.26
M.P.	42.69	39.21	0.05	41.25	20.23	9.78	0.34	15.91
Maharastra	42.85	31.06	0.17	37.38	23.96	13.68	0.27	19.19
Manipur	34.52	33.79	0.01	34.18	22.27	20.92	0.03	21.65
Meghalaya	28.96	28.63	0.01	28.80	13.82	12.58	0.04	13.20
Mizoram	41.37	39.08	0.03	40.30	18.56	18.85	-0.01	18.70
Nagaland	37.39	39.58	-0.03	38.43	28.60	29.07	-0.01	28.83
Orissa	29.22	18.82	0.22	24.75	11.72	6.04	0.30	9.28
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	23.44	10.34	0.39	19.24	14.74	4.44	0.54	11.44
Sikkim	43.15	58.28	-0.17	49.84	22.50	35.28	-0.23	28.15
Tamilnadu	62.44	60.62	0.02	61.61	18.76	15.12	0.10	17.10
Tripura	30.90	26.65	0.08	28.99	15.67	12.29	0.11	14.15
U.P.	49.91	38.77	0.14	45.41	36.67	21.18	0.28	30.42
West Bengal	29.72	17.74	0.25	24.45	14.38	6.43	0.37	10.88
A&N Island	59.11	87.14	-0.26	71.05	54.45	57.43	-0.03	55.72
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dadra & N. Haveli	43.01	30.06	0.19	37.60	20.35	13.33	0.20	17.42
Daman & Diu	89.56	122.83	-0.29	103.24	61.54	50.39	0.12	56.96
Delhi	130.43	43.68	0.83	61.82	186.96	27.59	1.95	60.91
Lakshadweep	95.89	88.09	0.07	92.13	76.61	57.34	0.19	67.33
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
India	**34.67**	**27.17**	**0.13**	**31.41**	**17.65**	**10.87**	**0.23**	**14.71**
C.V	66.87	81.25	274.38	68.44	124.77	103.80	160.08	105.33

Source: Calculated from Sixth AIES.

Among the scheduled tribes **gender discrimination** was least, as compared to other sections of the society. Gender disparity had declined for the all India level for both stages. For primary stage it was 0.23 in 1978 (see Table No.4.20), 0.18 in 1986 (see Table No.4.21) and 0.13 in 1993 (see Table No.4.22). In 1978, Andhra Pradesh

(0.24), Himachal Pradesh (0.34), Karnataka (0.29), Madhya Pradesh (0.31) and Orissa (0.33) had very high gender disparity in retention among STs.

At upper primary level the disparity was more in the states like Andhra Pradesh (0.58), Himachal Pradesh (0.54), Karnataka (0.54), Goa, Daman & Diu (0.57). In 1986, the states like Rajasthan (0.52), Karnataka (0.23), Orissa (0.22) West Bengal (0.23) and Bihar (0.10) had high disparity; Kerala displayed negligible disparity (0.03), along with Goa and some of the northeastern states which had actually negligible or negative values of the disparity index.

In 1993, at the primary level Kerala (-0.03) Nagaland and Goa also showed very low disparity. Even for Bihar (0.12) it was not very high. But for Rajasthan (0.37), West Bengal (0.25) it remained high. Values were higher for the upper primary stage in case of Rajasthan (0.54), Andhra Pradesh (0.47), and West Bengal (0.37). So high level of gender disparity in retention in elementary education, remains a harsh reality even after persistent planning efforts.

4.6.3. Regional Disparity in Retention in Elementary Schools

The co-efficient of variation for retention ratio for **all communities**, had gone down for primary stage consistently since Fourth AIES as the value was 56.62%in 1978, declined to41.46% in 1986 and 38.88% in 1993. But, for upper primary sections it had gone down between 1978 and 1986 as it was 13.2.9% during the Fourth AIES declined to to 75.12% in 1986. Later on it had increased to 84.37% level in 1993. That was due to the fact that retention had definitely gone up for almost all states. The development was faster in backward states in terms of magnitude. So, there was some kind of convergence among the states at primary stage. But at the upper primary stage the developed states improved in a faster pace while the underdeveloped states remained stagnant. So, the divergent trend prevailed in the upper primary stage.

Data for SC community showed that regional disparity had increased for primary level and upper primary level between 1978 and 1986. That was due to the fact that under developed states stagnated while developed states developed at a faster rate. But it declined between 1986 and 1993, as even the backward states started developing. Persistent decline was noticed in case of regional disparity in retention among STs at primary level while there was an initial increase in the

regional disparity among STs between 1978 and 1986; a converging trend prevailed at the upper primary level.

So, from the present analysis it is evident that low retention in pandemic to all Indian states except a few like Kerala, Goa and Himachal Pradesh. Educationally backward states for had very low retention. Low retention was widespread among SCs/STs. Gender disparity in retention is one of the reasons for low retention in Indian states and disparity is high where retention is low. Resilient form of patriarchal structure being endemic to upper and middle castes, gender disparity is relatively less among SCs and STs but it is not absent or negligible. Problem of low rates of retention have to be controlled in order to achieve UEE and to make the education system more efficient.

4.7 Conclusion

The conclusions that can be drawn form the ongoing analysis are:-

- The aspired goal of Universal Elementary Education has eluded us even after more than half a century of independence. As the age-specific –ratio for Indian states show that none of the states had been able to ensure schooling for all its children in the 6 to 14 years of age-group. As we ascend from lower to higher age group enrolment ratio exhibits a declining trend.
- Net enrolment Ratio (NER) which implicitly measures the efficiency of education system, is lower than GER which is suggestive of enrolment of overage and underage children in different stages as well as stagnation in the educational cycle. The difference between NER and GER is even starker in case of educationally backward states.
- Discrimination along gender and caste lines have been proved to have detrimental effect on the long cherished goal of UEE, as all the educationally backward states had high gender disparity and low social equity index for weaker sections. This goes to suggest that alienation of women and SCs/STs from their right to enlightenment has been instrumental in dismal performance of these states.

- Wastage and poor retention is rampant in elementary education and situation is worse in case of girls and weaker sections and the middle stage and upper primary stage.
- Wide regional disparity inspite of sustained efforts by the planners to create equitable educational system across space. Disparity is more prominent in case of females, as ensuring participation of a boy in the formal education is easier than a girl due to gender insensitive social structure.

The dialectical relationship that exists between educational progress and eradication of social inequities, calls for special attention of the policy makers. Educational planning in India is characterised by adhocism and inconsistency. At the same time is limited to the token measures taken for ensuring the availability of schools but little care is taken to ensure accessibility which is culturally defined. As a result of that progress made in the field of elementary education is actually limited in space as well as to the lower stages of education. In order to achieve UEE adoptation of a more inclusive and reform oriented strategy is mandatory.

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Chapter-V

Determinants of Participation and Retention in Elementary Education in Rural India

5.1 Introduction

The present study aims to focus on the issues associated with participation and continuation of children in the formal elementary education system in rural India. Multitude of factors associated with non-enrolment and premature withdrawal of children from schools, make it a daunting task for a researcher to identify them at the macro level. In a state level analysis it is illogical to cite one or two broad reasons for the plight of one state. Almost all the factors seem to be accountable in different proportions for the prevalent educational scenario in a particular state. Social, economic and cultural factors, that decide whether a child will receive the opportunity to go to school or not, are intricately interwoven. An attempt has been made in this chapter to identify the reasons for exclusion of children from formal schooling systems. The account given in forthcoming section is by no means claims to be exhaustive. Nevertheless, the objective is to provide an overview that can be helpful in guiding further research in this field.

5.2. Reasons for Non-enrolment and Dropout-: An Analysis of NSSO Data (52^{nd} Round)

Data published by NSSO (52^{nd} Round) had given the proportion of dropouts and non-enrolled persons (for 5 to 24 years age group) by reasons for their non-participation and withdrawal from education system. The age group for which the data had been given did not correspond with the prescribed age group (6 to 14 years) for elementary education. But it is considered in the most recent and comprehensive data set available at the state level for the required purpose.

Significant trend that the data reflected was that financial constraint at the familial level had played a very important role in determination of children's participation in formal education. Respondents from the states like Jammu and Kashmir (34.0%), West Bengal (21.7%), Bihar (21.3%), U.P. (20.8%), Haryana

(17.3%), Punjab (16.0%) and Orissa (16.1%) stated economic constraints as main reasons for their exclusion from school. It is widely accepted view in India, as the primary education has been made "free", negligible cost is incurred to send a child to school. Studies reveal facts that are quite contrary to this belief. According to PROBE Report (1995,p.32), cost of sending a child to a primary school in several areas of Bihar, U.P., Rajasthan and Madhya Pradesh was Rs.318 per annum. Sometimes that amount was required to pay in one go, which posed serious liquidity problem in the poorer households. Statistics also revealed the fact that sending girls to school was even costlier, as the opportunity cost of sending a girl child to school is even higher. It should be borne in mind that PROBE estimate included only the pecuniary cost and not the opportunity cost of sending a child to school. Inclusion of opportunity costs in this discussion would make the scenario even more embarrassing.

A closer inspection of the states which had large number a children not going to school for economic constraints revealed that not only economically backward states that had faced this problem. Even states like Punjab and Haryana, frontrunners in the economic development, were also included in that category. So, alternative realities existed within the physical boundaries of the states where poorest segment in the richest states were confronted with the similar problems as poor people in the other states.

There is a widely held belief that participation of children in the workforce is actually a major reason behind non-enrolment and high dropout rate. The NSSO data (52 and Round) revealed that among Indian states only Meghalaya (20.4%), Nagaland (13.8%) and Andhra Pradesh (12.3%) had significant number of children not enrolling in schools to carry out economic pursuits. In case of dropout only Goa (15.5%) and Dadra and Nagar Haveli (11.4%) had significant proportion of students leaving schools to pursue gainful economic activities. This phenomenon was more common among boys than among girls, i.e. more boys discontinued or never attended school to participate in the economic activities than their female counterparts. So, the facts revealed by this NSSO data set suggested that child labour was not an insurmountable hindrance on the path of achievement of universal elementary education. Those views had been reiterated in the existing literature also (e.g. Premi, 1987, p. 31). According to the PROBE report most of the children in the rural areas worked as family labourer on a part time basis. So, they had enough time to attend school provided school timings were adjusted to their needs (PROBE Report, 1995,

pp.15-16). But during agricultural peak seasons children are forced to work full time on the field. So, the academic calendar should be adjusted to ensure their attendance in the school (Amartya Sen, 1967, p.65).

An important reason behind non-enrolment and drop out of the students, cutting across all categories of states in India, was the apathy of the students towards schooling system. It was true even more in case of the rural males. In case of the states like Haryana (35.3%), Gujarat (35.3%), Karnataka (23.9%), Andhra Pradesh (25.890), U.P. (25.7%), and W.B. (21.7%) along with northeastern and hill states like Nagaland (33.8%), Meghalaya (30.3%) and Sikkim (28.6%), very high proportion of non-enrolment were due to the fact that children were not motivated enough to attend schools. The most interesting trend that emerged from the statistics was that in case of exclusion of males from formal schooling, parental apathy played an insignificant role. Only a meager proportion of male children never enrolled or discontinued schooling as their parents were not enthusiastic about their attendance in school. But in case of girls it served as a significant determinant. States like Rajasthan (41.0%), Maharastra (39.5%), Karnataka (39.1%), Bihar (37.2%), M.P. (36.6%), and U.P. (35.5%). large proportion of school going girls were restricted outside the ambit of formal education network as their parents did not find the option of sending their daughters to school worthy of paying attention. Similarly, large proportion of school dropouts among girls discontinued schooling due to parental discouragement. This phenomenon was more prevalent in Rajasthan (44.8%), Assam (24.7%), Karnataka (23.9%), and U.P. (22.1%), Punjab (21.9%) etc.

So, it can be inferred from the ongoing discussion is that parents are more interested in the education of their male children, than the female children (Dreze and Sen, 1995, pp.133-134). Regressive gender relations lead to the withdrawal of daughters from school system wherever the cost of sending her to school increases a low threshold level (PROBE Report, 1995, pp. 21-25, 1995). On the other hand most parents express much stronger interest in their sons' education (PROBE Report, 1995, p.20).

In case of some of the educationally developed states, the single most important reason behind drop out, as presented by the dataset, was inability to cope with school curriculum. States like Goa (52.3%), Kerala (47.6%), along with Jammu and Kashmir (43.7%), Sikkim (52.8%), Manipur (41.9%), Nagaland (39.9%), and Meghalaya (31.4%) had most students dropping out as they found the school

curriculum very difficult to cope with. In most cases the content of the syllabus is far from reality and the teaching style is unattractive. In the higher grades the pattern of evaluation is sometimes oppressive and meaningless (PROBE Report, 1995 pp. 59-60).

The aforesaid analysis based on NSSO data (52nd Round) had its own handicaps. Firstly, it was based on survey conducted for a large age group (5 to 24 years) which did not coincide with the population of age-group going to elementary schools (6 to 14 years). Secondly, it had viewed factors associated with discontinuation or non-enrolment in schooling in isolation. But in reality these factors are interlinked intricately with the socio-cultural scenario of a particular place. Thirdly, disaggregations at the level of various age and caste groups were not taken into account. So, the conjectures made on the basis of that dataset suffered from the problems of non-specificity and superficiality.

In order to make the analysis more insightful, a correlation matrix (Appendix –II, Table No.5.1.) had been calculated. That was to reflect the manner in which the determinants of participation in education were interwoven with each other. Factors internal to the education sector as well as various socio-economic indicators had been incorporated to elucidate interdependency between enrolment and retention in school along with school environment and other social and economic indicators.

5.3 An Analysis of Interdependency between Access and Retention in Elementary Education and Socio-cultural and Economic Indicators.

The remarkable trends that had emerged from the interdependency analysis were,

- Age-specific enrolment ratio, proxy variable for universal access to elementary education, had strong correlations with gender disparity in enrolment at both stages. The values of correlation co-efficient were -0.504 and – 0.565 for two successive age cohorts and were significant at the 1.0% level. Greater magnitude of correlation between enrolment in 11 to below 14 years age group with gender disparity in enrolment in that age group, was a suggestive of the fact that gender disparity had a greater role to play in order to define access to formal schooling in the higher age group.

- Retention rates at primary and upper primary level both were positively correlated with age –specific enrolment ratio (AER) in the corresponding level. For obvious reasons, the states which fostered favourable condition for high enrolment had high retention also.

One of the most striking facts that emerged from the analysis was that retention rates at both levels did not have any significant correlations with the gender disparity. Only retention rate of girls at the upper primary stage had significant (at 5% level) inverse relation (correlation co-efficient -0.403) with gender disparity. That was to suggest that low retention rates at primary and upper primary level were not so decisively structured along gender lines. It would be grossly wrong to infer that the issue was gender-neutral. But, especially at primary level discrimination against women was not so rampant and the boys of the similar age group also suffered from the problems that led to their early withdrawal from schools. At the upper primary level when the girls attained puberty, they started facing constraint to pursue further schooling, which are gender specific.

- It had been already discussed in the chapter –III that participation of children in formal schooling system was determined familial level. So, the education level of the parents and other elders played a significant role in that context. The data revealed that adult male and female literacy rates had strong positive bearing on participation of children in education. Both male and female literacy rate had positive significant correlation with the enrolment and retention rates for both primary and middle level.
- If attention was focused on the economic correlates of participation and retention in elementary schooling interesting facts could be observed. The correlation analysis reflected rural poverty head count ratio (HCR) had no significant impact on enrolment. The only enrolment indicators that had significant negative correlation with poverty HCR, was enrolment of boys at the upper primary level. On the contrary, retention rate at all levels for both boys and girls had negative correlation with poverty HCR. So, it can be said that enrolment of a child of an impoverished household could be ensured easily. But his/ her continuation in formal schooling system was the most awesome challenge.

Economic conditions of the households were related with the participation of the child in the labour force. Through Poverty Head Count Ratio had no significant correlation with the proportion of child labourers in the workforce, there was no point denying the fact that children from needy households only join the workforce. Proportion of child labour also had strong negative correlations with the retention rate. The correlation coefficient values were -0.511 and -0.592 respectively from primary and upper primary level retention rate (significant at 1% level). So, it can be said that though the children initially joined the school but as and when the need arose they left schools to join the workforce.

Another significant finding that had emerged from the analysis was that though poverty and enrolment of children were not significantly correlated but enrolment had significant positive correlation with adult male and female literacy. That finding was suggestive of the fact that enlightened parents, even in the poor household were more receptive to the idea of sending their children to school than compelling them to join the workforce.

- Access to education is also defined at the societal level also. Most obvious manifestation of discrimination was exclusion of marginalized sections of the society from formal education system. Retention rates at the primary and upper primary level were negatively correlated to the proportion of SC/ST population in the total rural population. It reflected the fact that though enrolments of the weaker sections were at par with the general population, incidence of dropouts was more rampant among them.
- Availability of school facilities were important determinants of enrolment and retention. The correlation analysis reflected the fact that proportion of rural population covered by primary sections within walking distance had no significant correlation with enrolment and retention. This might be due to the fact that only a negligible proportion of rural population was still lying outside the purview formal primary school network. So, with near total coverage population by primary schools, that factor ceased to be a significant determinant of participation in schooling. But, on the other hand, retention ratios at both the levels had strong positive correlation with proportion of population covered by elementary schools within walking distance. Initial enrolments of candidates could be assured even if the schools were not within easy access from home.

But continuation of formal schooling depends significantly on the physical access to school.

- Physical amenities available in school influenced the quality of education and school environment. It had shaped the motivation of the children and their parents in schooling. In the present analysis, the correlation matrix revealed that composite index constructed to represent the availability of physical amenities had significant positive correlation (0.563, significant at 1% level) with retention ratio at the primary level. At the upper primary level, through the relationship was positive, but it was not statistically significant. At the upper primary level, retention rates were determined more decisively by societal and economic factors, which made the relationship between physical amenities and participation in education weaker.
- Quality of education provided in a school is largely dependent on availability of teachers. Dearth of adequate number of qualified teachers in the rural areas adversely affects the quality of education. Pupil teacher ratio, which is a proxy variable for the size of the class was very high in almost all states. Most of the educationally backward states, which had high pupil teacher ratio had inadequate number of women teachers; which affected the participation of girls in the formal schooling system. The correlation matrix reflected the fact that where pupil –teacher ratio was high, gender disparity in enrolment at both levels were high and gender disparity in retention at the upper primary level were also very high. So, the important corollary that could be drawn from the analysis was that the dearth of teachers more adversely affects the opportunity of girl to join school and pursue education.

To gain an insight into the degree and direction of causation between the factors influencing participation in elementary education, a regression analysis has been undertaken. Four independent variables have been included, to capture the scenario of participation in elementary education. These variables are age specific enrolment ratio at primary and middle levels *(aerp/ aerm)* and retention ratio *(rotationp / retentionm)* at those levels. The dependent variables belong to two categories –ones that are endogenous to the education sector and others which are the representatives of the socioeconomic milieu of the states.

The variables that are endogenous to the education sector are:

(i) Proportion of primary schools with less than two teachers *(tcph)* - This indicator reflects the presence of understaffed schools across states. It is axiomatic that the instructional facilities provided in these schools will fall short of the desired level. Therefore it is expected to have negative influence on enrolment and retention.

(ii) Proportion of population covered by primary/ middle schools within habitations *(whp/ whm)* - Difficulties in physical access to school in the rural areas have discouraging effect on enrolment and retention. Better coverage by formal school network can be instrumental in ensuring participation in education.

(iii) Proportion of pucca school building *(puccap/puccam)* at primary and middle level - This is an indicator of physical amenities available in schools. Absence of physical amenities makes the school environment grimmer. As a result of that, students and parents get demotivated to attend school in these situations. So it is expected that an increment in puccap/puccam reflects betterment of physical amenities, which in turn, is expected a have a positive influence on enrolment and retention.

The variables that are external to the education sector are,

(i) Net State Domestic Product Per Capita *(nsdppc)* – This is an indicator of economic wellbeing across states. It is an established fact that with the improvement of economic conditions, chances of getting children to school also becomes brighter. So, it is evident that level of per capita income will lead to better enrolment and retention in elementary schools.

(ii) Literacy Rate *(literacy)* – One of widely accepted views that underlie the decision to include the indicator in the present model, is that literate parents and other members of the community will be more aware of the importance of schooling. This will give rise to more conducive situations to send children to school. So, higher literacy rates are expected to have a positive causal relation with participation in education.

To sum up these arguments in a suitable form of empirical analysis, it is postulated that enrolment and retention in schools have casual relationship

with these above mentioned variables. The relationship that exists can be represented in the following manner,

$Y = b + ax + u$, where u is the error term,

Four equations have been estimated in the present analysis. Analysis of the results reveals, that exogenous variables have greater role to play in influencing participation in elementary education (see Table No.5.2, Appendix-II). One of the most systematic and robust results is that, higher level of literacy is conducive to higher level of enrolment and retention. 1% change in literacy brings about 49% and 84% increase in enrolment at primary and upper primary level respectively. In case of both enrolment and retention, co-efficient values are higher for the upper primary level, than for the primary level. So, it is implied that improvements in adult literacy can spread awareness among the masses for the value of education. This in turn, will assure continuation of children in the system for a larger period of time. This finding vindicates the view more parental and community initiatives can be instrumental in solving the problems of low enrolment and retention at the upper primary stage.

Another exogenous variable, per capita income, have significant influences on enrolment and not with the retention in schools. The coefficient values are very less in both stages. This result suggests that retention in elementary level is determined by factors other than the economic status of the households. This statement does not concur with the finding in the analysis of correlation matrix. That analysis establishes the fact that poverty HCR has significant negative correlation with retention ratio. So, if these two findings are evaluated in conjunction, it can be inferred that, there is no scope of denial that economic well being furthers the chances of children attending schools. In India large disparity exists in income distribution. So, the states, which are having high or moderate income; even they have significant proportion of population living under impoverished conditions. In these poor households, chances of continuation of children in schools, especially at higher classes remain very bleak. In case of non-poor households, betterment in economic condition does not bring about my significant positive change in retention as it is culturally determined.

Availability of schooling within habitation encourages access to elementary schools. Other than availability of schools within habitation, no other variable belonging to the education sector shows significant impact on enrolment. In case of retention, physical amenities in schools, measured in terms of, building conditions have positive impact. 1% change in building conditions can improve retention by 22%

and 15% in the primary and middle level of education respectively. In order to ensure completion of schooling by students, it is imperative to improve conditions of physical infrastructure in schools.

So, it is evident that enthusiasm and awareness at the familial and community level, serves as the most significant determinant of enrolment and retention. Enrolment is also determined by economic issues and physical access to schools. On the contrary, retention has no significant relation of these factors but has significant relation with the physical amenities available in schools. It can be conjectured that retention is more culturally defined. It will be wrongful to deny that, significant improvement in the physical amenities available in schools, encourage their retention. Nevertheless, it is well established that without radical changes in the cultural and societal front, any attempt to secure cent per cent retention will be futile.

The central message that this empirical analysis give is that securing continuation of children in the schools for eight years is the most challenging task. In most cases parents are willing to enroll their children and gave education a try. But to sustain their children's interest in schooling depend on school quality and an array of cultural and economic factors. For the education of a boy, it is the disinterest of the child that played the decisive role. So, with the improvement school quality it is possible to attract the boys to schools. For girls' enrolment and relation alteration of regressive gender constructs in the society was mandatory to bring about any change in the desired direction.

In the regional front, it is only Kerala and Goa and some educationally developed states where school quality actually mattered significantly in deciding enrolment and retention. In most of the educationally backward states, the gender and economic issues dominate the scene which is beyond the control of educational authorities. In these educationally backward states, social transformation should precede any planning intervention. Better infrastructural facilities should be provided under right circumstances when they could bear the fruit.

5.4. Conclusions

To sum up the ongoing analysis, it can be said that,

(i) Retention and enrolment in elementary school education was culturally determined. The mechanisms like poverty, participation of the child in the workforce,

as well as cultural factors like discrimination against women and disadvantaged groups presented an array of cultural and economic disincentives that compelled children to stay away from school.

(ii) This is not to dilute the importance of educational infrastructure in determining participation in education. It is evident that availability of schools within habitations encourages enrolment of children. Provision of better physical amenities in schools is mandatory to ensure retention. So, physical access to quality schooling is a necessary pre-requisite for the achievement of universal elementary education. In order to ensure that these facilities are utilized by the target group of population, it is necessary that any attempt to provide educational infrastructure for the disfavoured segments of the society should be accompanied by reformist endeavoures.

(iii) The factors that yield exclusionary outcomes vary from one region to the other. These factors are deep rooted into the societal, cultural and economic milieu of a particular region. So bringing about transformation in that is the most challenging task.

The cumbersome tasks that a planner has to pursue are, bridging the regional disparity and upliftment of enrolment and retention rates in almost all regions. The process of social distancing actually thwarts the expansion of education by reducing the demand for education. This stumbling block on the way to achievement of Universal Elementary Education cannot be surmounted by taking token measures like building schools, or provision of better teaching and learning facilities. Ascendancy of the issue of basic education in political agenda and committed effort to make the disadvantaged groups more receptive to formal schooling are the stepping stone towards the achievement of UEE.

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Chapter –VI

Summary of Findings and Conclusions

Elementary education in India is infested with multifaceted problems. A multipronged approach is required to address these issues. One of the strategies that can be adopted by the Government is the solution of resource crunch in various states to provide quality education for already enrolled children, as well as to expand formal school network to send every child to school.

The **findings of the second chapter** of the present study suggest that, the costs of achieving universal elementary education in India in next few years are large and vary across states. Goal of investing six percent of national income in education, as prescribed in widely referred Government documents, has not been realised so far. Not only the total amount spent on education needs to be enhanced, but relative priority accorded to mass education has to be increased. In the state budgets some of the economically fast growing states have exhibited reverse trend where more fund has been channelised to higher and technical education to enhance supply of trained manpower in the face of globalisation. This trend has to be arrested as soon as possible.

Rectification of structure of education finance is also needed to achieve universal elementary education. Non-plan expenditures, which are mostly spent for non-development purposes, form a major chunk of expenditure on education. Though at the all India level the share of plan expenditure as a percentage of total outlay on elementary education has been increasing in recent years, educationally least developed states still have very low level of plan expenditure going to basic education. On the other hand, states which are fast developing in the field of education have higher level of investment under the head of plan expenditure. This is suggestive of the fact that the backward states should follow these precedents to achieve success in the field of elementary education. Rectification of interfunctional resource allocation structure is required to continue the reform process in elementary education. Proportion of personnel cost to total expenditure on elementary education is very high. It makes a dent into the meager fund available to most states. That makes maintenance as well as building of new teaching-learning and institutional infrastructure extremely difficult. It is necessary to make financial commitments the

desired direction in order to achieve the goal of UEE. But resources alone cannot transform conditions without appropriate socio-political changes.

Significant inferences that can be drawn from the empirical analysis undertaken the **third chapter** are that, in order to achieve the elusive goal of UEE, it is mandatory to provide elementary schools within easy access for every child. Since independence India has made stupendous progress in expansion of elementary school network in rural areas. Barring a few outliers like hill states and northeastern states, most of the states have near total coverage of primary schools for rural children within walking distance. This observation does not go well with the case of middle schools. Large numbers of children in rural areas do not have easy physical access to middle schools. This situation is more prevalent in educationally backward states and hill states. This has led to high level of regional disparity in access to schools at the upper primary level while case of primary education near parity situation exists across all states. Magnitude of regional disparity is much higher in case of access to middle schools in SC/ST dominated areas. Further, regional disparity is more pronounced in case of ST dominated areas. It is due to the fact that in the northeast on states and some of the Uts like Andaman and Nicober Islands, Lakshadweep etc. where STs are the local majorities, have better coverage of schools, as compared to ST dominated areas in other states. In the other regions, hamlets inhabited by tribal population are dispersed and located in inhospitable terrains. This makes the extension of schools in those areas a cumbersome affair. Moreover, these regions tend to have poor transport and communication facilities. So, it is not possible to cover pupil from various hamlets by one school in the intermediate location. Requirement to provide separate schools for each small village makes it a costly proposition.

In case of SC communities, physical access to elementary schools is not so restricted. Proportion of population in SC dominated areas covered by formal basic schools within habitations is less them that for all areas and ST dominated areas. Nevertheless, SCs inhabit in the areas surrounded by dwellings of the privileged segments of the society with better educational facilities. Moreover their major concentration is in the fertile plains, where communication is easier. So, pupil from SC dominated hamlets can commute to surrounding villages to attend schools. So, the proportion of population in SC dominated areas covered by elementary schools within walking distance is at par with the figures for all communities. It is clear from the ongoing analysis that supply middle schools are inadequate to achieve UEE.

Discrimination against ethnic minorities also remains even after more than fifty years of education planning intervention.

Provision of school facility within easy physical access is not the be all and end all of the story. The question of quality of education is also of vital importance. It is an established fact that dillapitated condition of school buildings, dearth of rooms to be used for educational purposes and lack of other teaching-learning materials like books, maps and black boards are inimical to the spread of elementary education. Excepting a few educationally developed states most of the Indian states are fraught with these maladies. Lack of ancillary facilities like drinking water, sanitation facilities etc make the school environment unattractive for students and parents alike. As parents are more concerned about privacy of their girl children, separate provisions should be made for the girls while providing of sanitary facilities. No consistent regional trend emerges from the data analysis in the chapter. Broadly speaking, it can be stated that UTs like Chandigarh, Delhi, Pandichery. Lashandweep etc. along with major states like Kerala, Punjab and Haryana have better physical infrastructure in elementary schools. On the other side of the picture, physical infrastructure in school in Meghalaya, Assam, Nagaland, Tripura along with M.P. and Orissa are in deplorable condition. This empirical analysis masks more information than it reveals. It shows that educationally developed states Maharashtra and Tamil Nadu have same level of physical infrastructure in schools with that of UP and Sikkim which are known as laggard s in the field of education.

Quality of instructions provided in the rural elementary schools remains an embarrassing issue. Dearth of teachers in rural areas makes it difficult to impart desirable quality of education. Lack of female teachers in the rural areas jeopardises the chances of girl children getting to school as most parents are not ready to allow their girls children to learn from male teachers. Broadly speaking, the data analysis subscribes to the view that the states that are laggard in the field of education have undesirable quality of schooling. Nevertheless, there is no one to one correspondence in this regard as same low achieves in education also have better physical and institutional infrastructure and vice versa. This trend is suggestive of the fact that committed effort should made by the teachers and the community as a whole achieve optimum utilisation of the existing infrastructure. This fallacious finding eventually indicates the fact that enrolment and retention in elementary education is culturally defined.

The findings of the **fourth chapter** clearly brings out the fact that even after more than fifty years of educational planning, regional disparity across states, in the field of rural elementary education still persists. No significant diminishing trend is observable from the empirical analysis. This is suggestive of the fact that, there are some states which have achieved stupendous success in the field, but the states, known for being laggards in the field of education, remained unreceptive to changes. Resilience on their part can be attributed to cultural and economic factors that are beyond the preview of educational planning. So, attempts made by planners to improve situations in these states have gone futile. Cultural and economic factors have restricted children's education in these states. Regional disparity has remained very stark in case of girls' education. It is easier to motivate people to send boys to schools. Orthodox minded parents are skeptical about the usefulness of girls' education. Tangible efforts made by the planners to improve physical facilities in schools can improve the prospects of participation of the boys'. As a result of that educationally underdeveloped states have made significant progress in the field of boys' education, which dragged down the level of regional disparity. But, for girls, the backward states remain unresponsive to the planning interventions. This may be due to the fact that girls' enrolments are determined culturally. So, regional disparity remains higher in case of enrolment and retention of the girls.

Ethnic minorities, like scheduled castes and tribes remain the target of discrimination. They are deprived of their share of public inputs of educational infrastructure. There are myriads of cultural and economic disincentives that work against the lower castes and tribes discouraging them to participate in schools. The most agonizing observation that is made is that in case of tribal education, educationally developed states like Maharastra, Karnataka etc. have dismally low level of enrolment. It is even lower than some of the educationally underdeveloped states. The states like M.P., Orissa, and Rajasthan had better values for tribal enrolment indicators as compared to the above mentioned states. In case ease SCs, however, the BIMARU states, Punjab and Haryana have more evidences of discrimination against them. It is true that in many states enrolment figures for SCs and STs are almost at par with all sections of the society but retention figures are way behind as compared to the other communities. So, universal retention of SC/ST children in schools remains an unmet challenge in case of all the state.

Significant progress has been made in field of enrolment in schools and regional disparity is less as compared to that of retention ratio. Bridging regional disparity in case of retention remains a formidable challenge. It is easier to initially attract pupils to schools. But, there are multitude of factors determine the sustenance of their interest in schooling. These regressive factors are more at work in the educationally under developed areas. So, it is difficult to achieve better retention in then areas leading to higher regional disparity in case of retention.

The same view has been reiterated in the findings of the **fifth chapter.** Empirical analysis undertaken in this chapter vindicated the widely held view that access to formal schooling is culturally defined. As these factors lie beyond the ambit of educational planning, they remain an insurmountable barrier to the educational developments in the rural areas. One should not be tempted to infer that the importance of improvements in the quality of schooling play a meek second fiddle. Preparedness at the community and familial level should precede any planning endeavour for the betterment of schooling facilities. Reticence and cynicism still persists on the part of the society to accommodate ideals like participation of girls and disfavoured groups in institutionalised education. Dissipation of these retrograde standards are obligatory to bring every child into the fold of formal elementary education.

On the basis of the present analysis, same important **policy suggestions** can be made. These are as follows:

1. More funds have to be allocated for the development of elementary education. Per student expenditure on education is grossly inadequate, in some of the states. So, serious compromises are made in the quality of education imparted in the schools.
2. Adequate funds should be allocated to implement resolutions made in the plans. Allocation on capital expenditure has to be increased to build new infrastructural inputs.
3. People's participation has to be ensured to implement optimum utilization of funds and other inputs available. This will lend more transparency into the system and curb corruption.
4. Attempts to provide educational inputs should be more gender sensitive. More girls' schools should be opened and each school should have at least one women teacher. Provisions should be made to provide security and

privacy for both girl students and female teachers in the school premises. Syllabus should also be made more gender sensitive and girl students should relate to the contents and get inspired by it.

5. Contents of the syllabus should be relevant to the students and sufficient care should be taken that they can cope with it.
6. As far as possible local languages should be made the medium of instruction, at least up to the primary level. This step can be instrumental in bringing the linguistic minorities, especially the tribal communities, into the fold of formal education.
7. For effective communication in the classrooms, more teachers from the SC/ST community should be recruited in the SC/ST dominated the areas. This will create a cordial class environment and rule out discrimination against children belonging to the disadvantaged households.

Based on preceding analysis, it can be concluded that there exists wide interstate variations in the degree of educational achievements. It can be asserted that same states have remained firmly ahead of the others in the field of education; while same others remained backward in spite of persistent planning efforts. In order to achieve the long cherished goals of UEE, it is mandatory to make institutional arrangements which will facilitate infusion of the disadvantaged groups in the formal education system. This can be attained only through more assertive community participation and broad-based class coalitions, transcending all social and political barriers. It is believed that Kerala's remarkable success is achieved at the price of making compromises on economic growth. But there are enough evidences to suggest that social development and economic growth are not contradictory rather they are complementary to each other. Pragmatic policy interventions should be made to encourage educational development, without throttling social justice.

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Appendix-I

1. Age-Specific Enrolment Ratio:

Total number of children of going to school in 6 to below 11years / 11to below 14 years age group *100

Total child population in 6to below11/11 to below 14years age group

2. Gross Enrolment Ratio:

Total enrolment in Primary/ Upper Primary level *100

Total child population in 6to below11/11 to below 14years age group

3. Net Enrolment Ratio:

Total enrolment in Primary/ Upper Primary level of 6to below11/ 11 to 14 years age group *100

Total child population in 6to below11/11 to below 14years age group

4. Sopher's Index for Measuring Gender Disparity (modified by Kundu)

$\text{Log}\ (x_2/x_1) + \text{Log}\ ((200-x_1)/(200-x_2))$, where $x_2 > x_1$.

The value of the index should always vary between (+1) to (-1), and in ideal case it should be zero. If it is negative then there is no disparity against x_2.

5. Index of Social Equity:

$$\frac{\text{Share of SC/ST enrolment in total enrolment} * 100}{\text{Share of SC/ST population in total population.}}$$

The results of this index has to be interpreted carefully as where the share of SC/ST population in the total population of the state is less than five percent or more than 95%, the value ids inflated . Moreover, if the value is more than 100%, that goes to suggest than overage or underage children are being enrolled in a particular stage of education. So, the index values have been calculated only for the states where SC/ST population is more than five percent or less than 95%.

6. Composite Index: Composite indices have been calculated for measuring the availability of physical and instructional amenities in schools across states. In this exercise, the states have been ranked for all the indicators following the principle that the best performing states should get the highest rank and the composite scores have been computed by adding the ranks for each state.

7. Regression Analysis: A linear regression model has been applied in the present analysis. In this model data for all Indian states and UTs for three years corresponding to three AIES and the years have been taken as dummy variables.

Appendix-II

List of Variables

AERPRM: Age-specific enrolment ratio at the primary level (1993)[3].

AERURM: Age-specific enrolment ratio at the middle level (1993)[3].

SIPAER: Gender disparity index for age-specific enrolment ratio at the primary level (1993)[3].

SIUPAER: Gender disparity index for age-specific enrolment ratio at the middle level (1993)[3].

RTRP: Retention ratio at the primary level (1993)[3].

RTRUP: Retention ratio at the upper primary level(1993)[3].

SIRTRP: Gender disparity index for retention ratio at the primary level (1993)[3].

SIRTRUP: Gender disparity index for retention ratio at the upper primary level(1993)[3].

MLIT: Male literacy rate(1991)[1].

FLIT: Female literacy rate(1991)[1].

PVT: Poverty head count ratio(1993) [2].

CHLAB: Percentage of labourers below 14 years of age [1]

TOTSCST: Percentage of SC and ST population to the total population of the states(1991)[1].

WKDISP: Proportion of rural population with access to primary schools within habitation(1993)[3].

WKDISUP: Proportion of rural population with access to upper primary schools within habitation(1993)[3].

PTRP: Pupil- teacher ratio at the primary level(1993)[3].

PTRUP: Pupil- teacher ratio at the upper primary level (1993)[3].

AMPCAP: Composite score for the physical amenities at the primary level (1993)[3].

AMPCAUP: Composite score for the physical amenities at the primary level (1993)[3].

RTRPRB: Retention ratio for the boys at the primary level (1993)[3].

RTRPRG: Retention ratio for the girls at the primary level (1993)[3].

RTRUPRB: Retention ratio for the boys at the upper primary level (1993)[3].

RTRUPRG: Retention ratio for the girls at the upper primary level (1993)[3].

AERPRMB: Age-specific enrolment ratio for the boys at the primary level (1993)[3].

AERPRMG: Age-specific enrolment ratio for the girls at the primary level (1993)[3].

AERUPRMB: Age-specific enrolment ratio for the boys at the upper primary level (1993)[3].

AERUPRMG: Age-specific enrolment ratio for the girls at the upper primary level (1993)[3].

1. Data Source: website : www. censusindia.org, Census of India,1991.
2. Data Source: Planning Commission,1993.
3. Data Source: Calculated from Sixth All India Education Survey.

Table no. 5.1

Interdependency Analysis of Participation in Elementary Education and Other Socio- economic Indicators

	AERP	AERUP	SIPAER	SIUPAER	RTRP	RTRUP	SIRTRP	SIRTRUP	MLIT	FLIT	PVT	CHLAB	SCST	WKDISP	WKDISUP	PTRP
AERPRM	1	.672(**)	-.504(**)	-.518(**)	.449(*)	.398(*)	0.014	-0.262	.552(**)	.478(**)	-0.235	-0.062	-0.223	0.124	0.33	-0.165
AERURM	.672(**)	1	-.691(**)	-.565(**)	.574(**)	.554(**)	-0.171	-.525(**)	.679(**)	.726(**)	-0.329	0.071	-0.252	-0.016	0.186	-.461(**)
SIPAER	-.504(**)	-.691(**)	1	.829(**)	-.530(**)	-.489(**)	-0.173	.688(**)	-.654(**)	.763(**)	0.176	-0.069	0.349	-0.087	-0.266	.390(*)
SIUPAER	-.518(**)	-.565(**)	.829(**)	1	-0.319	-.351(*)	-0.158	.798(**)	-.562(**)	.692(**)	0.066	-0.161	.407(*)	0.135	-0.192	.563(**)
RTRP	.449(*)	.574(**)	-.530(**)	-0.319	1	.944(**)	0.23	-0.224	.765(**)	.651(**)	-.442(*)	-.389(*)	-.511(**)	0.238	.534(**)	-0.096
RTRUP	.398(*)	.554(**)	-.489(**)	-.351(*)	.944(**)	1	0.184	-0.286	.770(**)	.685(**)	-.485(**)	-.377(*)	-.592(**)	0.156	.507(**)	-0.185
SIRTRP	0.014	-0.171	-0.173	-0.158	0.23	0.184	1	-0.047	0.011	0.075	-0.28	-.360(*)	-0.297	0.167	0.229	0.222
SIRTRUP	-0.262	-.525(**)	.688(**)	.798(**)	-0.224	-0.286	-0.047	1	-.486(**)	.664(**)	-0.08	-0.154	0.255	0.218	-0.041	.679(**)
MLIT	.552(**)	.679(**)	-.654(**)	-.562(**)	.765(**)	.770(**)	0.011	-.486(**)	1	.936(**)	-0.271	-0.171	-.595(**)	0.274	.653(**)	-.365(*)
FLIT	.478(**)	.726(**)	-.763(**)	-.692(**)	.651(**)	.685(**)	0.075	-.664(**)	.936(**)	1	-0.259	-0.026	-.538(**)	0.184	.505(**)	-.457(**)
PVT	-0.235	-0.329	0.176	0.066	-.442(*)	-.485(**)	-0.28	-0.08	-0.271	-0.259	1	0.289	0.241	-0.1	-0.176	-0.068
CHLAB	-0.062	0.071	-0.069	-0.161	-.389(*)	-.377(*)	-.360(*)	-0.154	-0.171	-0.026	0.289	1	.380(*)	-0.114	-.435(*)	-0.319
TOTSCST	-0.223	-0.252	0.349	.407(*)	-.511(**)	-.592(**)	-0.297	0.255	-.595(**)	.538(**)	0.241	.380(*)	1	-0.133	-.586(**)	0.162
WKDISP	0.124	-0.016	-0.087	0.135	0.238	0.156	0.167	0.218	0.274	0.184	-0.1	-0.114	-0.133	1	.661(**)	0.221
WKDISUP	0.33	0.186	-0.266	-0.192	.534(**)	.507(**)	0.229	-0.041	.653(**)	.505(**)	-0.176	-.435(*)	-.586(**)	.661(**)	1	0.167
PTRP	-0.165	-.461(**)	.390(*)	.563(**)	-0.096	-0.185	0.222	.679(**)	-.365(*)	.457(**)	-0.068	-0.319	0.162	0.221	0.167	1
PTRUP	0.069	-0.212	0.252	.385(*)	0.044	-0.062	0.154	.575(**)	-0.184	-0.339	-0.111	-.356(*)	0.181	.391(*)	0.265	.662(**)
AMPCAP	0.285	.389(*)	-.458(**)	-0.288	.563(**)	.571(**)	0.116	-0.303	.683(**)	.670(**)	-0.302	-0.174	-.496(**)	0.221	.536(**)	-0.061
AMPCAUP	0.082	0.313	-0.248	-0.116	0.272	0.271	0.159	-0.24	0.221	0.265	-.494(**)	-0.186	-0.166	-0.074	0.075	0.122
RTRPRB	.487(**)	.560(**)	-.488(**)	-0.284	.996(**)	.945(**)	0.237	-0.168	.760(**)	.634(**)	-.532(**)	-.403(*)	-.541(**)	0.31	.583(**)	-0.07
RTRPRG	.509(**)	.624(**)	-.573(**)	-.397(*)	.993(**)	.946(**)	0.221	-0.32	.784(**)	.693(**)	-.491(**)	-.360(*)	-.582(**)	0.24	.531(**)	-0.192
RTRUPRB	.393(*)	.526(**)	-.460(**)	-0.301	.950(**)	.994(**)	0.189	-0.2	.749(**)	.643(**)	-.503(**)	-.388(*)	-.580(**)	0.188	.523(**)	-0.123
RTRUPRG	.415(*)	.596(**)	-.543(**)	-.432(*)	.924(**)	.990(**)	0.179	-.403(*)	.793(**)	.739(**)	-.455(**)	-0.347	-.595(**)	0.114	.479(**)	-0.267
AERPRMB	.858(**)	.407(*)	-0.124	-0.2	0.351	0.311	0.012	-0.005	.392(*)	0.226	-0.191	-0.157	-0.192	0.073	0.315	0.023
AERPRMG	.969(**)	.750(**)	-.694(**)	-.654(**)	.547(**)	.491(**)	0.064	-.408(*)	.663(**)	.622(**)	-0.255	-0.049	-0.308	0.129	.368(*)	-0.243
AERUPRMB	.481(**)	.914(**)	-.474(**)	-0.235	.554(**)	.520(**)	-0.243	-0.317	.571(**)	.572(**)	-.352(*)	0.013	-0.146	0.01	0.138	-0.317
AERUPRMG	.650(**)	.965(**)	-.790(**)	-.739(**)	.583(**)	.583(**)	-0.089	-.667(**)	.735(**)	.810(**)	-0.287	0.091	-.370(*)	-0.073	0.216	-.544(**)

	PTRUP	AMPCAP	AMPCAUP	RTRPRB	RTRPRG	RTRUPRB	RTRUPRG	AERPB	AERPG	AERUPB	AERUPG
AERPRM	0.069	0.285	0.082	.487(**)	.509(**)	.393(*)	.415(*)	.858(**)	.969(**)	.481(**)	.650(**)
AERURM	-0.212	.389(*)	0.313	.560(**)	.624(**)	.526(**)	.596(**)	.407(*)	.750(**)	.914(**)	.965(**)
SIPAER	0.252	-.458(**)	-0.248	-.488(**)	-.573(**)	-.460(**)	-.543(**)	-0.124	-.694(**)	-.474(**)	-.790(**)
SIUPAER	.385(*)	-0.288	-0.116	-0.284	-.397(*)	-0.301	-.432(*)	-0.2	-.654(**)	-0.235	-.739(**)
RTRP	0.044	.563(**)	0.272	.996(**)	.993(**)	.950(**)	.924(**)	0.351	.547(**)	.554(**)	.583(**)
RTRUP	-0.062	.571(**)	0.271	.945(**)	.946(**)	.994(**)	.990(**)	0.311	.491(**)	.520(**)	.583(**)
SIRTRP	0.154	0.116	0.159	0.237	0.221	0.189	0.179	0.012	0.064	-0.243	-0.089
SIRTRUP	.575(**)	-0.303	-0.24	-0.168	-0.32	-0.2	-.403(*)	-0.005	-.408(*)	-0.317	-.667(**)
MLIT	-0.184	.683(**)	0.221	.760(**)	.784(**)	.749(**)	.793(**)	.392(*)	.663(**)	.571(**)	.735(**)
FLIT	-0.339	.670(**)	0.265	.634(**)	.693(**)	.643(**)	.739(**)	0.226	.622(**)	.572(**)	.810(**)
PVT	-0.111	-0.302	-.494(**)	-.532(**)	-.491(**)	-.503(**)	-.455(**)	-0.191	-0.255	-.352(*)	-0.287
CHLAB	-.356(*)	-0.174	-0.186	-.403(*)	-.360(*)	-.388(*)	-0.347	-0.157	-0.049	0.013	0.091
TOTSCST	0.181	-.496(**)	-0.166	-.541(**)	-.582(**)	-.580(**)	-.595(**)	-0.192	-0.308	-0.146	-.370(*)
WKDISP	.391(*)	0.221	-0.074	0.31	0.24	0.188	0.114	0.073	0.129	0.01	-0.073
WKDISUP	0.265	.536(**)	0.075	.583(**)	.531(**)	.523(**)	.479(**)	0.315	.368(*)	0.138	0.216
PTRP	.662(**)	-0.061	0.122	-0.07	-0.192	-0.123	-0.267	0.023	-0.243	-0.317	-.544(**)
PTRUP	1	-0.103	-0.003	0.127	0.026	-0.008	-0.127	0.202	-0.011	-0.109	-0.305
AMPCAP	-0.103	1	.366(*)	.596(**)	.621(**)	.551(**)	.586(**)	0.162	.383(*)	0.337	.425(*)
AMPCAUP	-0.003	.366(*)	1	0.287	0.322	0.25	0.296	0.025	0.147	.350(*)	0.305
RTRPRB	0.127	.596(**)	0.287	1	.981(**)	.956(**)	.918(**)	.426(*)	.567(**)	.556(**)	.560(**)
RTRPRG	0.026	.621(**)	0.322	.981(**)	1	.943(**)	.940(**)	.408(*)	.608(**)	.584(**)	.647(**)
RTRUPRB	-0.008	.551(**)	0.25	.956(**)	.943(**)	1	.970(**)	0.323	.480(**)	.509(**)	.544(**)
RTRUPRG	-0.127	.586(**)	0.296	.918(**)	.940(**)	.970(**)	1	0.297	.518(**)	.535(**)	.641(**)
AERPRMB	0.202	0.162	0.025	.426(*)	.408(*)	0.323	0.297	1	.769(**)	.359(*)	.374(*)
AERPRMG	-0.011	.383(*)	0.147	.567(**)	.608(**)	.480(**)	.518(**)	.769(**)	1	.546(**)	.764(**)
AERUPRM	-0.109	0.337	.350(*)	.556(**)	.584(**)	.509(**)	.535(**)	.359(*)	.546(**)	1	.818(**)
AERUPRM	-0.305	.425(*)	0.305	.560(**)	.647(**)	.544(**)	.641(**)	.374(*)	.764(**)	.818(**)	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Regression Results

1. . areg aerp tchp whp literacy nsdppc puccap, abs(year)

```
Number of obs =     68
F( 5,   60) =  11.07
Prob > F      =  0.0000
R-squared     =  0.5177
Adj R-squared =  0.4614
Root MSE      =  12.311
```

aerp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
tchp	-.0529217	.0864781	-0.61	0.543	-.2259036	.1200602
whp	.2273069	.1082822	2.10	0.040	.0107103	.4439036
literacy	.4958767	.1352673	3.67	0.001	.2253019	.7664515
nsdppc	.0058399	.0020028	2.92	0.005	.0018336	.0098462
puccap	-.067008	.0510953	-1.31	0.195	-.1692137	.0351978
_cons	25.12457	10.50945	2.39	0.020	4.102543	46.1466
year	F(2, 60) =	1.083	0.345	(3 categories)		

2. . areg aerm whm literacy nsdppc puccam, abs(year)

```
Number of obs =     68
F( 4,   61) =  51.35
Prob > F      =  0.0000
R-squared     =  0.7859
Adj R-squared =  0.7648
Root MSE      =  9.5419
```

aerm	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
whm	.1494578	.0745302	2.01	0.049	.0004255	.2984901
literacy	.8945853	.1039394	8.61	0.000	.6867457	1.102425
nsdppc	.0065474	.0014945	4.38	0.000	.0035589	.0095358
puccam	-.0326293	.043465	-0.75	0.456	-.119543	.0542844
_cons	-4.895549	4.842328	-1.01	0.316	-14.57838	4.787285
year	F(2, 61) =	3.920	0.025	(3 categories)		

3. areg retentionm whm literacy nsdppc puccam, abs(year)

```
                                    Number of obs =      68
                                    F(  4,   61) =   17.08
                                    Prob > F      =  0.0000
                                    R-squared     =  0.7355
                                    Adj R-squared =  0.7095
                                    Root MSE      =  15.586

------------------------------------------------------------------------------
  retentionm |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        whm |   -.1060073    .121738    -0.87   0.387    -.3494375     .137423
    literacy |    1.122774   .1697752     6.61   0.000     .7832873     1.46226
     nsdppc |    .0021254   .0024411     0.87   0.387     -.002756    .0070067
     puccam |    .1499639   .0709961     2.11   0.039     .0079985    .2919292
       _cons |   -22.28509   7.909489    -2.82   0.007    -38.10109   -6.469084
-------------+----------------------------------------------------------------
        year |  F(2, 61) =   19.659     0.000              (3 categories)
```

4. . areg retentionp tchp whp literacy nsdppc puccap, abs(year)

```
                                    Number of obs =      68
                                    F(  5,   60) =    7.61
                                    Prob > F      =  0.0000
                                    R-squared     =  0.6169
                                    Adj R-squared =  0.5722
                                    Root MSE      =  18.009

------------------------------------------------------------------------------
  retentionp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tchp |   -.0375081   .1265058    -0.30   0.768    -.2905574     .2155412
         whp |    -.031285   .1584024    -0.20   0.844    -.3481369     .2855669
    literacy |    .6844055   .1978779     3.46   0.001     .2885909      1.08022
     nsdppc |     0030974   .0029299     1.06   0.295    -.0027632     .0089581
     puccap |    .2195939   .0747455     2.94   0.005     .0700806     .3691072
       _cons |    14.88104    15.37392     0.97   0.337    -15.87137     45.63345
-------------+----------------------------------------------------------------
        year |  F(2, 60) =   13.413     0.000              (3 categories)
```