LEVELS OF DISPARITY IN LITERACY AND EDUCATION IN NORTH-EAST INDIA: A GEOGRAPHICAL ANALYSIS

Submitted by

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Chapter – I

Introduction

1.1 Introduction

Education plays a prominent role in the social and political life of a nation and is viewed as a factor eminently suited to bring about social change, economic growth, political development and modernisation. Almost all the social scientists, international experts and national policy makers hold this belief in the value of education. Education is a powerful instrument for national development and it can act as an instrument of social change and transform the existing social systems of any given country into one based on the principles of justice, equality, liberty and dignity of the individual; and provide adequate and equal opportunity to every child and help him/her to develop his/her personality to the fullest level. The spread of education is undoubtedly one of the most important parameters of the social and cultural development in our society. The various dimensions of social-cultural changes in any society can be understood in the light of the levels of literacy and education. The lower is the level of literacy in a given society the lesser is the contact and interaction with other social groups and lower is the level of social and cultural development. Literacy is both the cause and effect of development.[1] The acceptance of education is the master

[1] Rahi, A.L. (1996): "Literacy for the Oppressed", *Studies in Educational Development: Primary Education and Adult Literacy*, in Davendra Thakur and D.N. Thakur, (ed.), Deep and Deep Publication, New Delhi, Vol. 2, p. 593.

determinant of long-term economic growth.[2] In a developing country like ours, the largest resources that it can command at any given time are its manpower.[3]

Literacy is considered as one of the indicators of educational development. India is the most populous country in the world, after China. But the literacy rate in India is quite low. If the literacy rate improves, people can employ modern tools and techniques of training and improve their productivity and earning potential and thus result in overall benefit to the country. The literacy rate of India is very uneven over various regions and states of the nation. The state of Kerala has the highest literacy rate (90.92 per cent) followed by Mizoram (88.49 per cent) and the lowest is that of Bihar (47.53 per cent) in 2001[(P)] --the overall literacy rate of India is 65 per cent.

The Census of India, 1991 defined literacy status as ".. one who could read and write with understanding in any of the languages". Article 45 of the Directive Principles of State Policy provides for free and compulsory education to the citizen up to the elementary level of all the age group 6 and 14 years. Kothari Commission on education, after taking stock of existing educational situation, called for universalisation of elementary education. One of the three tasks recommended by Kothari Commission in order to achieve the objective of universal elementary education was that schools should be provided within a walking distance to every child in the age group 6-14 years.[4] The National Policy on Education (NPE) was implemented in 1986. The National Policy of Education fixed the time targets for

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[2] Coleman, J.S. (1965): *Education and Political Development,* in Coleman, J.S., (ed.), Princeton University, Mass.

[3] Rahi (1996), *Op cit*, p. 593

[P] Registrar General and Census Commissioner, Census of India, (2001): *Provisional Population Totals, Paper-I*, March, 2001.

[4] Raza, M., Ahmad, A. and Nuna, S.C. (1990): *School Education in India*, NIEPA. New Delhi, p. 41.

achieving universal and free education up to age of 11 was by 1990 and up to the age of 14 by 1995.[5] Our system of education is the second largest in the world with 151 million children enrolled in 1994-95 in the age group 6-14 years covering about 91 per cent of the children in this age group.[6] In spite of the strenuous efforts made by the state and various voluntary agencies, illiteracy continues to be the single most problem in India even after more than half a century of attaining Independence. The Ministry of Welfare, Government of India had introduced one additional programme to provide education to tribal girls. This programme involves Non-Governmental Organisations (NGOs) with support of State Governments to set up education complexes for girls from backward tribal groups. Education is provided in these schools along with provision of vocational training and adult education for the parents of the children.[7] Plato and Aristotle, political philosophers, have affirmed principle embodied in phrases, *--as is the state, so is the school*, or 'what you want in the state, you must put in the school.'[8]

The situation in the North Eastern region of India is not very different from the overall picture of illiteracy and education in the country. In spite of generally, high aggregate level of literacy, the geographic patterning of literacy shows wide variations and the disparities are of the very highest order. Most important, this supports an extraordinary large proportion of tribal population having different linguistic and cultural background and also belonging to diverse faiths. Conversion to Christianity has been an important factor in the process of diffusion of literacy and education among the Scheduled Tribes (tribal)

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[5] NCERT (1985): *Fifth All India Educational Survey*, Vol. 1, New Delhi, p. 13.
[6] Economic Division, The Ministry of Finance, Government of India (1997): *Economic Survey*, New Delhi, p. 164.
[7] Meghalaya Guardian, "*Literacy growth in Country Uneven*", Vol. 1, No. 187, Monday, July 10, 1995.
[8] Coleman, J. S. (1965): *op cit.*, p. 15.

population of the region. Apart from Christianity, modernisation in particular, the process of urbanisation and the spread of secularism have interacted traditional cultures in which the institutions and attitudes were themselves differentiated across the geographical space.

1.2 Literature Survey:

Right from the independence, every five-year plan of the country had given the special importance to education. In different plan periods, different policies on education were implemented to reduce the gap of literacy rates between men and women, the rural and urban, Scheduled Caste/ Scheduled Tribes and the Non-Scheduled population for free and compulsory education, education for all, mid-day meal scheme, adult education, vocational education, training of rural youth (TRYSEM), education of the girl child etc. Still the segmental gaps have not been bridged. The censuses for different decades show the overall literacy rates have been increasing but at a slower pace. The overall literacy rates for 1991 and 2001 (provisional) show a sudden jump of 13.17 percentage points[9] —a remarkable achievement for a country with a deplorable record of literacy. The same table shows 12 states and one Union Territory (Dadra and Nagar Haveli) is below the national average of literacy. A number of studies on literacy and the disparity in literacy between different segments of population in the Indian context as well as in other countries have been undertaken by a number of scholars during the recent past. Some of the works of these scholars are summarised as follows:

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[9] Registrar General and Census Commissioner, Census of India (2001): *Provisional Population Totals, Series-1, Paper-1*, New Delhi, p. 117.

Golden (1972) stressed that a low level of literacy acts as a break on the advance of countries along the path of social and economic development[10]. He says, "The transition from illiteracy to literacy for a whole country is accompanied usually by differential rates of transition within the population. Literacy skills are acquired more readily by young adults than by aged "[11]. It is because the young people can adopt the new things faster than the old people.

Brown and Halsey *et al* (1997) say, "... bureaucracy is intimately tied to the idea of meritocracy because it treats individual according to 'objective' criteria of individual achievement. In education this has meant that individuals are, in principle, treated according to ability rather than on the basis of ascribed characteristics such as social class, gender or race. This principle has given rise to the notion of equality of opportunity, which, in the context of development of the nation state, has three functions. It acts as an efficiency principle by (in theory) selecting and allocating individuals for the labour market on the basis of ability; it acts as a moral principle by selecting students on the basis of a theory of justice; and it also act as a tool of assimilation. It provides the means by which the heterogeneous people of a nation, in terms of class and ethnicity, could aspire to and achieve common prizes offered in the industrial society"[12]. It (education) is the key to the future economic prosperity. Halsey et al's (1997) research has found that the problem of modern capitalist societies concern the alienation caused by the homogenisation of culture. The

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[10] Golden, Haldia H. (1972): "Literacy", in David L. Sill, (ed.), *International Encyclopaedia of Social Sciences*, Macmillan Co. and Free Press, New York, p. 413.
[11] *Ibid.* p. 416.
[12] Brown, P., *et al* (1997): "The Transformation of Education and Society- An Introduction", *Education, Culture, Economy and Society*, in A. H. Halsey, *et al*, (ed.), Oxford University Press, New York, p. 4.

result of this is the loss of personal identity through a process of assimilation in to a common culture[13].

Green has concluded that, "...the major impetus of the creation of national education system lay in the need to provide the state with trained administrators, engineers and military personal; to spread dominant ideologies of nationhood; and so to forge the political and cultural unity of burgeoning nation states and cement the ideological hegemony of their dominant class"[14]. Brown and Hugh (1997) say, " ... the quality of a nation's education and training system is seen to hold the key to future economic prosperity"[15].

Education can work to improve productivity only if there are employment opportunities for more productive works[16] (Levin and Kelly: 1997). Dale (1997) had a comparative study of education and its relationship with western societies. He found, "Education has been effected both directly and indirectly by the changes in global economy. The direct impact is clearly seen the case of those developing countries whose education systems have been shaped increasingly by the leading policies of the World Bank and the demands of 'structural adjustment' (i.e., the diminution of the public sector and the expansion of private) that the organisation like IMF make condition of support. More

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[13] *Ibid.* p. 8.
[14] Green, A. (1990): *Education and State Formation*, The Macmillan Company, London, p. 309.
[15] Brown, P and Lauder, Hugh (1997): "Education, Globalisation and Economic Development", *Education, Culture, Economy and Society*, in A. H. Halsey, et al, (ed.), Oxford University Press, New York, p. 174.
[16] Levin, Henry M. and Kelly, Carolyn (1997): "Can Education Do It Alone?", *Education, Culture, Economy and Society*, in A. H. Halsey, et al, (ed.), Oxford University Press, New York, p. 240.

indirect effects of the decline of the Keynesian welfare-state settlement to the point where the public funding of services like education seems no longer feasible at previous levels"[17].

Kohli (1986) studied the differences in educational attainment of migrants and non-migrants in Class-I cities of Maharashtra. According to him education and migration plays very significant role in the process of regional economic development, urbanisation and industrialisation[18]. Sarkar (1986) stresses, "... if universalisation of primary education is achieved, population growth rate will be reduced and this will eventually accelerate the process of economic growth."[19]- as is the case of Kerala. It was a poor state in early years but has improved its relative level of living in the later years[20].

The illiteracy is both cause and effect of poverty. The educational programs cannot succeed unless it is balanced with other fields of investment, so that the learners can be involved in the productive task. According to Nautiya (1986), "Education is perceived (i) as a basic human need, (ii) as a measure of meeting other basic needs, and (iii) as an activity that sustains and accelerates overall development"[21].

Shah (1985) studied the educational profile among the Scheduled Tribe population in the state of Gujarat. He concludes, " Education—both formal as well as informal is one of the important agents of social change. It is more so among the Scheduled Tribes who are

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[17] Dale, Roger (1997): "The State and the Governance of Education: An Analysis of the Restricting of the State-Education Relationship", *Education, Culture, Economy and Society*, in A. H. Halsey, et al, (ed.), Oxford University Press, New York, p. 274.

[18] Kohli, Rajan (1998): "Differences in Educational Attainment of Migrants and Non-Migrants in Class-I Cities of Maharashtra", *Education and Regional Development*, in J. B. G. Tilak, (ed.), Yatan Publication, New Delhi, p. 80.

[19] Sarkar, B. N. (1986): "Inter State Disparities in Education", *Education and Regional Development*, in J. B. G. Tilak, (ed.), Yatan Publication, New Delhi, p. 220.

[20] *Ibid.* p. 220.

[21] Nautiya, K. C. (1986): "Rural Women, Educational Deprivation and Development", *Education and Regional Development*, in J. B. G. Tilak, (ed.), Yatan Publication, New Delhi, p. 259.

relatively isolated from the larger society and predominantly engaged in agriculture. Education exposes them to the out-side-world, widening their horizon and providing them with information about many matters relevant to life in our age"[22]. It also opens up an avenue, which enables them to enter the non-agricultural sector for earning their livelihood[23].

Article – 26 of Universal Declaration of Human Rights, 1948 declares: "Every one has right to education. Education shall be free, at least in the elementary and the fundamental stages. Elementary education shall be compulsory"[24].

"Theoretically education must be to enable persons to acquire knowledge and skill. Persons endowed with these qualities are expected to complete for and acquire better occupational status of higher social status in life. Hence education is considered as important means to develop 'human capital', contributing both social productivity of the individual and economic of the society"[25] (Purnalekar: 1995). The project administration report observed, "... the migrant labour do not bother about educating their children in near-by school even when such facilities exist and even when they do not have to shift every now and then"[26]. The same report noted that the migrant labourers are interested in getting what so ever paltry amount the children can bring in. In condition of acute hardship, the children's

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[22] Shah, Ghanshyam (1985): "A Profile of Education Among the Scheduled Tribe in Gujarat", *Tribal Education of Gujarat*, in Ghanshyam Shah et al, (ed.), Ajanta Publication, New Delhi, p. 29.
[23] *Ibid.* p. 30.
[24] *Ibid.* p. 31.
[25] Purnalekar, S. P. (1985): "Social Stratification and Educational Inequalities: A Case Study from Maharashtra, Gujarat and Rajasthan Villages", *Tribal Education of Gujarat*, in Ghanshyam Shah et al, (ed.), Ajanta Publication, New Delhi, p. 82.
[26] Project Administrator (1983): *A Note on the Migration Pattern of Tribals of Panchmah, Dahod District*, ITDP Office, October, p. 6.

education becomes less important[27]. In a paper Iran (1976) observed, "...schooling was not only the answer to man-power training, but also the key to the foundations of the dynamic and democratic society based on equal opportunities for all"[28]. He further adds, "...education is conscientisation; it is it is a liberating process which addresses itself to both the individual and social dimensions of man. It expresses itself in the manner human beings relate to external realities in order to act upon them and to transform them into the instruments of their humanisation"[29]. Tilak (1986) observed, "...in this unequal and interdependent world economy education has a significant role to play. It attacks poverty, improves income distribution and reduces inequality"[30].

Aggarwal and Murlidhar (1986) studied the disparity in the level of literacy between Scheduled Caste and Non-Scheduled Caste population in Maharashtra. They conclude, "... the disparities become more and more sharp as one move from the urban to rural areas; within the rural areas to rural female and within the rural female to rural Scheduled Caste females".[31] "The relative deprivation of women in the field of education is particularly significant because it underlines all other attributes of deprivation. The Scheduled Castes are deprived no doubt; but Scheduled Caste women are more than their man folk, the rural

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[27] *Ibid.* p. 7.

[28] Majid, Rahnema (1976): "Iran", *Educational Strategies in Developing Countries*, in S. C. Ghosh, (ed.), Sterling Publishers, New Delhi, p. 23.

[29] *Ibid.* p. 25.

[30] Tilak, J. B. G. (1986): "Education in Unequal World", *Educational Planning- A long term Perspective*, in Monis Raza, (ed), NIEPA, New Delhi, p.46.

[31] Aggarwal, Y. P. and Murlidhar, V. P. (1986): "A Temporal Analysis of Disparities in the Level of Literacy between Scheduled Caste and Non-Scheduled Population in Maharashtra", *Education and Regional Development*, in J. B. G. Tilak, (ed.), Yatan Publication, New Delhi, p. 294.

population is no doubt but the rural women are more deprived than their man folk"[32] (Raza, Ahmad and Nuna: 1990). "... the district which are mainly dependent on agriculture have low level of literacy" (Raza: 1990)[33]. He concludes, "...universalisation of alphabetisation is intrinsically linked with the development process as a whole and a narrow sectoral approach of educational planning would not go in for achieving national objectives"[34]. While emphasising on the importance on education, he says, "...is neither a deprived parameter which is essentially determined by exogenous forces, nor is it an isolate spring form and restricted to the individual psyche. It is intertwined in socio-economic development with every fibre of its being"[35].

Kundu and Rao (1982) had undertaken a comparative study on the nature and pattern of inequality of literacy between different segments of population. In this study, states were taken as the units of analysis. Kundu and Rao generalized, "...urbanization and metropolitanisation have a distinct effect in reducing the disparity between two sexes irrespective of all social groups"[36]. Ahmad (1982) examined the inter-district inequalities in literacy of tribal population of Bihar[37]. This study was based on census of 1971. Ahmad

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[32] Raza, M., Ahmad, A. Nuna, S. C. (1990): *School Education in India- A Regional Dimension*, NIEPA, New Delhi, p. 17.
[33] Raza, M. (1990): *Education, Development and Society*, Vikas Publishing House, New Delhi, p. 85.
[34] *Ibid.* p. 92.
[35] *Ibid.* p. 100.
[36] Kundu, A. and Rao, J. M. (1986): "Inequality in educational Development- Issues in Measurement changing structure and its Socio-economic correlates with Special Reference to India", *Educational planning- A long term perspective*, in Monis Raza, (ed), NIEPA, New Delhi, P.446.
[37] Ahmad, A. (1982): *Inter-Regional Inequality in Literacy Levels of Tribal and the Cast Segments of Population in India, 1971*, Paper presented at regional workshop in Long-Term Educational Planning, NIEPA, New Delhi.

(1983) undertook a comparative study of disparity in literacy rates of various Scheduled Tribes. The district was taken as the smallest unit for the study[38].

Ahmad and Nuna (1986) studied the inter-regional disparity in the literacy rate of Maharashtra for 1971. According to them, the iniquitous development of literacy among the Scheduled Caste, Scheduled Tribe and Non-Scheduled Tribe/Caste population on the one hand, and among the male-female and rural-urban components of these population on the other raises a number of issues. It is abundantly clear that the policy measures adopted so far to universalise literacy among the socially backward communities, particularly in the rural areas have not delivered the goods[39].

Elango (1995) stressed that education is the only means to determine the rate of economic development. Also it directs the changes in the society[40]. Devi (1996) studied district-wise disparity in literacy of Orissa at three points of time, i.e., 1971, 1981 and 1991. According to this study, "... the inequality/disparity in education exits within the district"[41].

Chubey and Chubey (1998) have developed methodology to analyse the literacy of different segments of population[42]. Giddens (1990) says, "...the increasing use of written materials in many different spheres of life led to higher level of literacy. Education in the modern form involves the instruction of pupils within specially constructed school premises

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[38] Ahmad, A. (1993): *Education of the Scheduled Tribes Some Aspects of Inequality*, Paper presented at workshop of Indicators of Equality in Education, NIEPA, New Delhi.

[39] Ahmad, A and Nuna, S.C. (1986): "Inequality in Literacy level of population in Maharashtra", *Educational Planning- A long term perspective*, in Moonis Raza, (ed.), NIEPA, New Delhi, p. 147.

[40] Elango, R. (1995): "Education, inequalities and development- A Sub-Regional Experience", *Indian Economic Issues*, in P. J. Gandhi, (ed.), Jaipur, p. 554.

[41] Devi, Sailabala (1996): "Regional Inequalities in Education in Orissa", *Indian Journal of Social Science*, Vol. XXVIII, No. 2, p. 14.

[42] Chubey, P. K. and Chubey, G. (1998): "Rural-Urban disparity in literacy: Inter-State variation in India", *Indian Journal of Regional Sciences*, Vol. XXX, No. 1.

that gradually began to emerge as one of the most important ingredients of socio-economic development"[43].

According to Chowdhry and Burgohain, "...the level of economic development of a region is directly related to the level of its educational development. Education removes socio-economic inequalities. It is necessary first to remove or reduce educational inequalities"[44].

Based on 1971 and 1991 census data, Mohapatra (1993) brought out the inter-district disparity in literacy in North East India. For a detailed analysis of intra-district disparity in literacy level he took the state of Meghalaya as a case study for 1971 and 1981. According to him, (i) "...wherever the literacy is higher, the inter-district disparity is lower, thus a higher level leading to lower disparity. ii) Secondly, the disparities are lower in relatively plain areas than the hill areas"[45].

Sharma (1993) says: "...there are high sex disparities in literacy and rural-urban difference in literacy"[46]. According to him, it is because of immigrants and the social profile of the region, because it is not only uneven but also complex in character[47]. The complexity has got accentuated because of the diversities prevalent among the various ethnic and religious groups with different degrees of socio-cultural transformation[48].

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[43] Giddens, A. (1990): *Sociology*, Polity Press, New York, p. 418.
[44] Chowdhry, S and Burgohain, T (1993): "Educational status-A Case Study of Inter-District and Inter-State variation in North-East India", *Regional Disparity in the Educational Development*, in S. C. Nuna, (ed.), NIEPA, New Delhi, p. 464.
[45] Mohapatra, A. C. (1993): "Determinants of Regional Disparities in Literacy in North-East: Planning Strategyes for removal of Disparities", *Regional Disparity in the Educational Development*, in S. C. Nuna, (ed.), NIEPA, New Delhi, p. 485.
[46] Sharma, H. N. (1993): "Social profile of North-east India: Spatial pattern of literacy and educational levels", *Social Structure and regional development*, in A. Ahmad, (ed.), Rawat Publication, New Delhi, p. 236.
[47] *Ibid.* p. 236.
[48] *Ibid.* p. 237.

1.3 Statement of the Problem:

Literacy can be described as the cause as well as the effect of development and education is the key that unlocks the door to modernisation.[49] The spread of literacy has been quite uneven over the various regions of the country.[50] This marked disparity of literacy influences the socio-economic conditions across regions in India. The level and response to educational opportunities also varies in space and as a consequence, certain regions acquire relative advantages over others in terms of human resource development and human capital formation.[51] Inequalities between the educational levels of different groups may have been the cause and the effect of the differentials between their levels of socio-economic conditions.

Contrary to the popular perception, the North-eastern part of the country displays extraordinary disparities in the levels of literacy attainment as well as in the extent of infrastructure facilities in education. Whereas it may be true that the impact of Christian missionaries in raising the levels of literacy was spectacular in this part of the country more than anywhere else, these impacts nevertheless were not uniform in their social and spatial coverage. Ironically, the increase in the overall literacy in the region as a whole also meant substantial increase in the disparity levels between the rural and the urban areas. Disparities in literacy also exist not only on the regional levels, but also between the genders, between the communities (the general and ST/SC populations)[52]. What do explain disparities? Does

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[49] Mohapatra, A.C. (1993): "Determinants of Regional Disparities in Literacy in the North-East India: Planning Strategies for Removal Disparities", in S.C. Nuna, (ed.), *Regional Disparities in Educational Development*, NEIPA, New Delhi, p. 476.
[50] Coleman, J. S. (1965): *op cit*, p. 1.
[51] Raza, Moonis (1990): *Education Development and Society*, Vikas Publishing House, New Delhi, p. 60.
[52] The literacy level varies widely within the region from 55% in Arunachal Pradesh to 88% in Mizoram.

overall infrastructural backwardness contribute to the disparities (regional)?, or access is important, or the prevalent value system?, or the governmental policies play a role? What relationship does exist between literacy and the educational levels, and between the educational infrastructure and literacy? These are some of the questions the study intends to answer.

The census 2001 figures indicate that except for the state of Arunachal Pradesh the other states of the region have literacy rates around the national average or above it[53]. The contradiction between a healthy literacy rate and low economic development needs to be further emphasised.

1.4 Objectives:

The main objectives of the study are as follows:

(i) To get an insight into the nature of spatial variations in the levels of literacy in the North-eastern region;

(ii) To estimate disparities in literacy at the regional, gender, urban-rural and community (General and ST/ST) levels;

(iii) To explain the disparities using various indicators at the district level in the region;

(iv) To examine in specific the educational infrastructure in the region and in the manner, it may affect literacy but in general the human resource development in the region;

(v) To examine the literacy disparities at micro-level in Meghalaya and explain these in light of infrastructures and educational indicators; and

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[53] Registrar General and Commissioner of Census of India (2001), Provisional Population Totals, Paper-I, March 2001.

(vi) Finally, to suggest suitable policy measures for reducing disparities in literacy and educational attainments to achieve greater social development in the region.

1.5 Hypotheses:

The following hypotheses are tested in the study:

Hypothesis – I:

"Process of urbanisation in the region accelerates the rural-urban divide in educational infrastructure and thus promotes higher disparity in literacy and education between the rural and the urban."

Justification: An area experiences high urban growth would exhibit a higher rural urban disparity in literacy levels compared to the areas where urban growth is less. Rapid urbanisation may produce polarisation effects and thus educational infrastructure gets rapidly concentrated in urban areas without commensurate diffusion and dispersal into the rural areas. Urbanisation is a great modernising force in a society. If educational infrastructure correlates well with urbanisation, then the disparities in literacy and education between the rural and the urban become a necessary outcome.

Hypothesis –II:

"Disparities in literacy is inversely related with change in overall literacy".

Justification: Literacy rate generally increases to the limiting figure of hundred (percentage). Whereas generally the male literacy is higher than the female literacy in the context of India, when a higher male literacy increases to the limit it would trend to grow slower beyond a

threshold as compared to female literacy that would grow faster. Thus, it would lead to a gradual reduction of gender specific disparity in literacy. This may apply also to other types of disparities as well.

Hypothesis – III:

"Male-female disparity in literacy is low in the region primarily due to high overall status enjoyed by women among the tribal communities, wherein discriminations based on gender is negligible."

Justification: Among the seven states of the region four have tribal majority, whereas in two others (Tripura and Manipur) they constitute a significant minority. Only Assam has a ST population of around 10 per cent. Tribal societies are by and large egalitarian and there is no gender preference by tradition. Under such circumstances, it would be expected that the general level of gender specific disparity in literacy would be low in those states and districts.

Hypothesis – IV:

"Tribal- non-tribal disparity in literacy levels relates to their respective spheres of dominance."

Justification: Within the North-eastern region, there are distinct states where the Scheduled Tribes constitute the overwhelming majority, in others significant minority and in still others negligible proportion of the total population. It would be of interest to study the relationship of literacy disparity between the ST and non-ST populations in light of the above three types

of tribal concentrations. It would also be of interest in study the nature of literacy disparities between various tribes and also between the tribes and the non-tribes. (It is likely that the tribal non-tribal disparity in literacy levels will be negligible in areas where tribes are in overwhelming majority. On the other hand, it is expected to be very high where they are in majority).

1.6 Data Sources and Methodology:

1.6.1 Data Sources:

The study is largely based on secondary information. The data for the present study has been taken from the secondary sources. The secondary data have been taken from the various sources like Census of India, Census reports of all seven states of the region, statistical abstracts, etc. The data pertaining population, literacy, tribal population, S. C. population, religious composition of population, economic activities have taken from the census reports of 1971,1981 and 1991. The provisional census report of 2001 has also been taken into consideration for the literacy rates. For the educational data, *reports of the Sixth All India Educational Survey* for all the seven states of the region was referred. The data like road length, area of the districts, etc has taken from the statistical hand books/abstracts of all the states of the region. For a detailed study of disparity in literacy Meghalaya has been considered. The data for the state of Meghalaya, Primary Census Abstract of 1981 and 1991 of the state have referred.

1.6.2 Methodology:

This study deals with the regional pattern of literacy at the state and district level for all the seven states of the region. For the micro-level study data from all the C. D. Blocks of Meghalaya for 1981 and 1991 was collected. The study is largely based on the data available from the census reports of 1971, 1981,1991 and 2001[P]. However, since no census work took place in Assam in 1981, it remains as a major limiting factor of the study. But, to have an overall idea of Assam for 1981, the data was interpolated between 1971 and 1991 i.e. [(1971+1991)/2].

(A) Many districts of the region have been broken up to make new districts, between 1981 and 1991. To have a better comparison, the districts, which were separated in 1991, are re-combined again and the corresponding data added up. For example, Tawang district was separated in 1991 to form a new district in 1991. So, Tawang and West Kameng districts were added up to make single unit i.e. West Kameng (Appendix-I). Again some of the districts of the region were renamed in 1991. The districts which were renamed the same names were kept as it was in 1981. For example, Manipur North district was renamed as Senapati in 1991. So, Manipur North was kept for 1991 also. After adding up wherever needed, the total number of district units of the region came to 42. The disparity indices have been calculated for these districts including the states of the region. In order to have better insight of the literacy level and its disparity 30 Community Development blocks of Meghalaya have been studied.

[P] Registrar General and Census Commissioner of India, 2001, Provisional Population Totals, Paper-I, 2001.

(B) In order to get an insight, regional pattern in the levels of literacy, district level percentage of literacy (overall, male, female, rural and urban) were calculated. The literacy data was further dis-aggregated for the following categories:

(i) Aggregate tribal literacy is further classified into:

(a) Male,

(b) Female,

(c) Rural

(d) Urban

(ii) Aggregate non-Tribal literacy rate further classified into:

(a) Male,

(b) Female,

(c) Rural,

(d) Urban

(B) The level of disparity in literacy was studied on the basis of Sopher Index (1974) and subsequently modified by Kundu and Rao[54]. Sopher Disparity Index (SDI) was originally stated as follows:

The Sopher's (1974) disparity index may be written as:

$$Ds = \text{Log}X_2/X_1 + \text{Log}[(Q-X_1)/(Q-X_2)] \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where, $X_2 > /X_1$

$Q \geq 100$

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[54] Kundu, A and Rao, J. M. (1985): "Inequality in Educational Development: Issues in Measure, Changing structure and its Socio-Economic correlates with special reference to India", *Educational Planning- A long term perspective, in* Moonis Raza, (ed), NIEPA, New Delhi. P. 441

X_1= Male literacy rate,

X_2 = Female literacy rate,

Q is a constant

Kundu and Rao (1986) have modified this formula, where they used

$Q \geq 200$ .....(2)

Q has been taken as 200 for computing disparity in this study (Kundu and Rao).

The disparity indices were calculated separately for the following segments:

(a) Male and Female,

(b) Rural and Urban,

(c) Rural male and Rural female,

(d) Urban male and Urban female,

(e) Tribal and non-Tribal,

(f) Rural Tribal and rural non-Tribal,

(g) Urban Tribal and urban non-Tribal.

A series of maps have been prepared to represent various segmental disparities in literacy that lead to regional pattern of disparities. Once the disparities are estimated they need explanations. Thus, multiple linear regression model has been used in explaining both the literacy levels at district and block levels (in Meghalaya) as well as the disparities themselves. This would be helpful in isolating (independent) factors or a combination thereof, which will be useful for policy recommendation in reducing segmental disparities in literacy. It is quite obvious that reduction of disparity in literacy is one of the major objectives of the study.

(C) Regression Model:

$L(D) = f(X_1, X_2, \ldots X_n)$ ..... (3)

$f(X) = a + b_1 X_1 + b_2 X_2 + \ldots + b_i X_i + \ldots + b_n X_n$ ..... (4)

$L(D) = f(Z_1, Z_2, \ldots\ldots Z_n)$ ..... (5)

$f(Z) = a + b_1 Z_1 + b_2 Z_2 + \ldots + b_i Z_i + \ldots + b_n Z_n$ .....(6)

Where, L is the specific segmental literacy in the domain of 1..n regional units expressed in percentage; D is the modified Sopher Index for various segments in the domain 1...n regional units expressed in ratios, X^{55}_i /Z_i^{56} are independent variables that have some influence on literacy levels as well as disparities, a and b are coefficients.

X_1 - Percentage of non-ST/SC population to the total population of a given district

The awareness of education among the Non-ST/SC population is more than the S.C. and the S.T. population. So, the literacy rate will be higher among the Non-ST/SC population.

X_2 – Percentage of urban population to the total population of a given district

The higher level of urbanisation leads to higher literacy rate. The people of towns engage in non-agricultural sector of economy. They have more access to educational institutions than the rural people, because in the villages number of schools are less and sometimes it is not available in a walking distance.

X_3 – Percentage of workers in industry both household and non-household to the total main workers

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[55] It is used to analyse district-level data for the North East India.
[56] It is used to analyse block-level data for the Meghalaya.

It is assumed that more people work in non-agricultural sector this will lead to better earning. This will help to send the children to school for education.

X_4 – Density of population per square kilometre

If the density of population is more in a given region it will lead to urbanisation. This will lead to opening up more schools and colleges. Eventually it will lead to the higher literacy level.

X_5 – Number of schools per 1000 population

Weights have given to Primary, Upper Primary and Secondary Schools, i.e., (1X Primary school + 2X Upper primary school + 3X Secondary school) 1000/ Total population

If the number school are more it shows most of the villages have schools. If any village does not have a school, the students of the village will get a school in a walking distance.

X_6 – Road length per 10,000 persons

If the place is well connected with the metalled/all weather road students can able to go school in the rainy season also. It will lead to the better educational development. Ultimately it will lead to the growth of literacy.

X_7 – Number of registered industries per 10,000 persons

It is assumed that the industries are one of the indicators for the development, because many people can be engaged in the industry directly or indirectly. This will lead to better educational development.

Z_1 - Percentage of non-ST/SC population to the total population of a given block

The awareness of education among the Non-ST/SC population is more than the S. C. and the S.T. population. So, the literacy rate will be higher among the Non-ST/SC population.

Z_2 – Percentage of urban population to the total population of a given C.D. block.

The higher level of urbanisation leads to higher literacy rate. The people of towns engage in non-agricultural sector of economy. They have more access to educational institutions than the rural people, because in the villages number of schools are less and sometimes it is not available at a walking distance.

Z_3 – Percentage of workers other than cultivators and agricultural labourers to the total main workers of a given block

It is assumed that more people work in non-agricultural sector will lead to better earning. This will help to send the children to school for education.

Z_4 – Density of population per square kilometre of a given block

If the density of population is more in a given region it will lead to urbanisation. This will lead to opening up more schools and colleges. Eventually it will lead to the higher literacy level.

Z_5 – No of schools per 1000 population of a given block

Weights have given to Primary, Upper Primary and Secondary Schools, i.e. (1XPrimary schools+2X Upper primary schools +3XSecondary schools : 1,2 and 3 are weights) 1000/Total population

If the number school are more it shows most of the villages have schools. If any village does not have a school, the students of the village will get a school in a walking distance.

Z_6 – Percentage of electrified villages to the total inhabited villages of a given block

Z_7 – Percentage of villages with tape water facilities to the total villages of a given block

Z_8 – Size of village in a block, i.e., Total population per number of inhabited villages of a given block

Z_9- Primary Health Centre per 10,000 persons

It is assumed that the independent variables Z6 to Z9 are the indicators for the development. To develop a region or a village it is essential that the all the places of the region/a village should be electrified. People should get fresh drinking water and etc.

The variables explained (dependent variables) are as the follows:

Y_1 – Percentage of literates to the total population (crude literacy rate: CLR) of a given district or block

Y_2 – Percentage of male literates to the total male population of a given district or block

Y_3 - Percentage of female literates to the total female population of a given district or block

Y_4 - Percentage of rural literates to the total rural population of a given district or block

Y_5 - Percentage of urban literates to the total urban population of a given district or block

Y_6 - Percentage literates of Scheduled Tribes to the total Scheduled Tribe population of a given district or block

Y_7 - Percentage literates of Non-Scheduled Tribes to the total Non-Scheduled Tribe population of a given district or block

1.7 Plan of Study:

The study has been divided in to eight chapters:

Chapter-I deals with the introduction, extensive survey of literature, statement of the problem, objective of the study, data sources and methodology applied for the present study.

Chapter-II contains a brief geographical background of the region. It deals with district-wise distribution of population, pattern of urbanisation. It also contains the district-wise share of Scheduled Tribe and Non-Scheduled Tribe population in all the districts of the region in 1981 and 1991. This chapter contains the share of workers in different sectors of economy (state-wise) in different sectors of economy in 1981 and 1991. It also contains share of people in major religions in different states of the region in 1981 and 1991. Finally, it concludes with the findings of the chapter.

Chapter-III contains the district-wise distribution of literacy rates (overall, male, female, rural and urban). This chapter also discusses the distribution of literacy rates among the tribal and non-tribal population in the region. It also contains district-wise distribution of literacy rate among the tribal and non-tribal population in North East Region both in rural and urban areas.

Chapter-IV deals with the district-wise distribution of schools by standard in all the states including the region. This chapter deals with the pupil-teacher ratio, infrastructure and management of the schools by standard in the region. The last section of the chapter deals with the availability of educational institutions (Primary, Upper Primary and Secondary) in the rural areas of the states. The chapter concludes with findings of the chapter.

Chapter-V contains district-wise Sopher's disparity indices (SDI) of North East Region. The first part of the chapter deals with the disparity between man and women of the districts including the states, also the chapter deals the indices between the different segments of population (male, female, rural urban, etc.). The last section of the chapter tests the hypotheses-I and II. Finally, it concludes with the findings.

Chapter-VI deals with the correlation of 14 sets of variables taken from all the districts of the region. This chapter contains the regression analysis between the independent ($X_1 \ldots X_7$) and dependent variables ($Y1 \ldots Y_7$). The Chapter-V ends with a set of conclusions.

In the first part **Chapter-VII** deals with the levels of literacy of different segment of population in all the C. D. Blocks of Meghalaya. The second section of the chapter finds the disparity indices (SDI) between the different segments of population in Meghalaya, i.e., overall, male female, etc. The last section of the chapter contains correlation and regression analysis of three sets of variables. Finally, it concludes with concluding summary of the chapter.

Chapter-VIII contains conclusion and future planning to increase the level of literacy and to reduce the disparity in literacy rates between the different segments of population.

Chapter-VIII

Conclusion

8.1 Summary of Main Findings:

The main findings of the study as on the level of disparity in literacy and education are given in the following paragraphs:

(i) The share of rural population was invariably high than that of urban population in all the districts including states in the region in 1981 and 1991 (excluding Aizawl district). The share of urban population grew in all the district of the region, but the growth rate was very high in Aizawl district between 1981 and 1991. Aizawl was the only district in the region with higher share of urban population than that of rural areas in 1991. The Scheduled Tribe population form a majority group in four hill states of the region in both 1981 and 1991. The shares of Scheduled Tribe population were minority to negligible in other plain states (Assam, Manipur and Tripura) in both the census years. The share of Scheduled Tribe population in the urban areas grew in all the districts of the region between 1981 and 1991. In comparison to 1981, the share of Scheduled Tribe population in the urban areas of Aizawl district nearly doubled in 1991. This district (Aizawl) had the benefit of higher share of Scheduled Tribe population in the urban areas than that of rural areas in 1991. The share of Non-Scheduled Tribe population declined in all the states including the region between 1981 and 1991 (except Arunachal Pradesh). It was due to the share of Scheduled Tribe population grown rapidly in all the states

of the region. The share of main workers main workers was lower than that of non-workers in all the states of the region. If not all most of the people of the region depend on the primary sector (I*) of economy. On an average one out of three persons engage in tertiary sector (III*) in all the states including the region.

(ii) In the high literate districts the literacy rates grew in a slow pace, but in the low literate districts the rate grew faster between 1981 and 2001, e.g., Aizawl and East Kameng districts. The growth rate of literacy was very high in the state of Arunachal Pradesh because of the high growth of women literacy rate, e.g., East Kameng. The same case can also be observed in other districts of the region. The study reveals that the in Jaintia Hills district of Meghalaya the women literacy rate was hither than that of men in both 1991 and 2001. It was marginally lower than of men in Jaintia Hills district in 1981. The literacy rates among the urban population were more than that of rural population in all the districts of the region in both 1981 and 1991. The rates in the urban areas grew at comparatively higher rate than that of rural areas with low literacy between 1981 and 1991. The literacy rate among the Scheduled Tribe population was very low in the some of the hill districts of the region both in 1981 and 1991, e.g., East Kameng and Karbi Anglong. Most of the low literate districts with predominantly the Scheduled Tribe population were confined to the state of Arunachal Pradesh alone. The gaps in literacy rates (male and female) were comparatively low in the districts of Meghalaya, Mizoram and Nagaland in 1981 and 1991. The literacy rates among

* Meaning of I and III given in Table-2.6

the Non-ST/SC population were higher than that of Scheduled Tribe population in all the states in both 1981 and 1991. In some of the districts of the region the literacy rates among the Non-ST/SC population were higher than that of Scheduled Tribe population. It can be mentioned here that the share of Non-ST/SC population forms minority or negligible in the hill districts. In some of the districts the rates among the Non-ST/SC population declined between 1981 and 1991. It was due to the decline in the share of Non-ST/SC population in those districts, e.g., Jaintia Hills, West Khasi Hills and Wokha, etc. The literacy rates among the population in the urban areas were invariably higher than that of rural areas in all the districts.

(iii)The educational infrastructure are very important for the development of any region. The primary schools are comparatively more than the upper primary and the secondary schools, roughly a pyramidal structure in ratio of 3:2:1. Of the total number of students between Class-I and class-X, the share of students in the primary section was very high in all the states of the region in 1994. Unfortunately, many of them do not reach to upper primary and the same, from upper primary to high (secondary) school. After admission in the classes students either fail or leave (drop-out) the school. These could be because of poverty, accessibility (remote location) of schools or any other factors as well. After more than 52 years of country's independence, many children of the country do not avail the opportunity to have formal education. This area was also not exempted from the above situation. The P-T ratio in the primary school was not in a healthy condition in many districts of the region in 1994. Almost all the schools (primary, upper

primary and secondary) of Arunachal Pradesh and Assam were fully under the government management in 1994. In Meghalaya the primary schools were less under the government management; most of them are under the local bodies, especially the District Councils. Most of the secondary schools of Meghalaya were aided schools. The location of the primary schools either within the habitation or in a walk-able distance is very important to enhance the better enrolment of the children into the schools. Most of the habitations have a primary school within walk-able distances, still it was not adequate. In Aizawl district more than 12.00 per cent habitations did not have primary school within the walk-able distance. It can be mentioned here that the children from the hill areas cannot go to the school every day. As a result of this either they fail or drop out from the respective classes.

(iv) The SDI (Sopher's Disparity Index) (Chapter V) was low when overall (male and female) literacy rates are high. The sex disparity indices are usually low in the Scheduled Tribe majority states. The case of Arunachal Pradesh is quite different. The literacy rate is very low among the men and women in all the districts in 1981. In 2001, the literacy rate among the women grew very rapidly, so the disparity in literacy also declined quite significantly. The same can also be observed in the districts also. Additionally, the Sopher's Disparity Index (SDI) was low with the increasing literacy rates, i.e. low disparities. The sex disparity index declined in most of the districts of the region. In some of the districts the gender SDI grew between 1981 and 1991 because the indices were low in the initial condition. The

SDI between Scheduled Tribe and Non-Scheduled Tribe was high in the state of Arunachal Pradesh in both 1981 and 1991, since the state was with the lowest literacy rates in the region. Disparity indices in Manipur North and Lakhimpur districts were negligible in 1981 and 1991. The disparity in literacy between ST and Non-ST/SC population was lower in the urban areas than that of rural areas in all the districts of the region in 1981 and 1991.

(v) The study reveals that the share of Non-SC/ST population was negatively correlated with density of population per square kilometre, number of schools per 1000 persons in 1991. The density of population was highly positively correlated with the number industries. It means most of the Non-SC and ST population was confined in the in the areas with the industry (Assam foe example). The overall literacy rate had positive correlation other literacy variables (male, female, rural, urban etc.).

(vi) The sex disparity index significantly correlated with other segmental disparities in 1991. The Non-ST/SC and SC population negatively correlated with most of the segmental disparity indices. It was negatively significant (at 5.00 per cent) with the SDI between ST and Non-ST/SC population in the urban areas in 1991. The share of urban population was positively correlated (at 1.00 and 5.00 per cent level) with all segmental disparities in the same year.

(vii) The multiple (linear) regressions (Chapter VI) of literacy rates and segmental disparity indices show only the share of urban population had some contribution to increase the literacy rates of the region in 1991. At the same time urbanisation

appears to promote male-female disparities in literacy, due to a predominantly male bias of education in urban areas as well as the larger component of Non-ST/SC population in urban areas of the region. Other independent variables did not show much contribution to increase the literacy rate. In addition rural-urban migration, which is quite strong in the region due to increasing impetus of urbanisation (in hill areas) also leads to migration of educated males more to urban areas than the females for that matter.

(viii) In some of the districts of Meghalaya the opposite was true. Some of the C.D. Blocks of the state women literacy rates were higher than that of men in 1981 and 1991. C.D. Blocks with higher women literacy rates were confined in eastern part of Meghalaya (areas of Khasi and Jaintia Scheduled Tribes). This is a very exceptional situation, particularly that these tribes do practice matriliny and also has a cultural preference of the girls resulting in more emphasis on female literacy and apparently reduced dropouts among the girls. The literacy rate among the ST population was higher than that of Non-Scheduled Tribe population in 6 C.D. Blocks of the state in 1991. The census reports of Meghalaya show Mawkynrew C.D. had low share of Non-Scheduled population in 1981 and 1991. The literacy rate among the Non-ST/SC population declined in this block between 1981 and 1991. The disparity indices also low in those blocks.

(ix) The share of urban population (Z_2) correlated well with all the literacy variables (overall, male, female, urban, ST and Non-ST/SC). The variable Z_2 correlated strongly with the density of population, number of schools per 1000 persons and

size of village. The same variable (Z_2) correlated (at 5.00 per cent) with villages having tap water supply to the total inhabited villages (rural infrastructure) (Z_7).

8.2 Testing of Hypotheses:

(a) The district-wise study revealed that the urbanisation (X_2) did not correlate well with the infrastructure in 1991, because the growth of urbanisation was very slow in all the districts of the region. The share of urban population grew rapidly only in the state of Mizoram, i.e., from 24.67 in 1981 to 46.10 per cent in 1991. The changes in urban literacy when correlated with changes in rural-urban disparities (between 1981 and 1991) it has been clearly observed that there is a strong positive correlation between the two, which means when urban literacy goes up significantly it leads to increase in rural urban disparity (Chapter V, section 5.5, table 5.10). This is due to the increasing concentration of educational infrastructure into the urban areas as compared to the relative neglect in rural areas. Thus, it proves conclusively *hypothesis-I* as proposed in Chapter-I.

(b) The second hypothesis states, *"Disparities in literacy is inversely related with change in overall literacy"*. Invariably in all the districts of the region overall literacy as well as segmental literacy have grown between 1981 and 1991. The districts with higher literacy level grew slowly between 1981 and 2001[P] and the district with low level of literacy grew at a faster rate. The high

[P] Provisional

growth of literacy rate among the females was even more pronounced between 1981 and 2001 [P]. For example, the literacy rate among the women was 61.00 per cent in Aizawl district in 1981 that grew to 69.00 per cent in in 2001 [P]. In case of West Kameng district the female literacy rate grew from 2.88 in 1981 to 28.86 per cent in 2001[P]. In Chapter V (Appendix XI(a) and table 5.10) it has been conclusively proven that when overall literacy has grown between 1981 and 1991, the segmental disparities have invariable come down, i.e., increase in overall literacy is negatively (significantly) correlated with decline in male-female, rural-urban and tribal-Non-tribal disparities in literacy in the region during the said period, which proves conclusively the stated hypothesis. The same situation has also been observed in the micro-study of Meghalaya (block-wise) in Chapter VII.

(c) Hypothesis–III, states, *"Male-female disparity in literacy is low in the region primarily due to high overall status enjoyed by women among the tribal communities, wherein discriminations based on gender is negligible."* The states/districts/blocks with tribal majority (particularly in the states of Meghalaya, Mizoram and Nagaland with the Exception of Arunachal Pradesh that has low overall literacy rates) the gender disparity was less in comparison with the non-tribal majority states (districts/blocks), like Assam, Tripura and to some extent in Manipur, in both 1981 and 1991. It can be mentioned here that the literacy rates (especially women) were relatively low

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[P] Provisional

as compared to male literacy in all the districts of the region, except the Jaintia Hills district of Meghalaya. As the rates among the men and women grew between 1981 and 2001[P] the sex disparity declined, because female literacy grew faster than the male literacy rate, which has been a heartening feature of literacy growth in the region. Table 5.10 clearly shows the association ("r") between female literacy changes with decline in male-female disparity changes that the increase in female literacy is inversely related (strongly) with male-female disparity changes that conclusively proves *hypothesis –III.*

(d) Hypothesis-IV states, *"Tribal- Non-tribal disparity in literacy levels relates to their respective spheres of dominance."* In the north-eastern region, four states have tribal majorities in all the districts (Meghalaya, Mizoram, Nagaland and Arunachal Pradesh), whereas in other states (3) STs are in majority only in a few districts, i.e. Karbi Anglong and NC Hills in Assam, and hills districts of Manipur. Whereas overall male-female disparities in literacy between 1981 and 1991 has declined in the region, in absolute terms the disparities in tribal states (except Arunachal Pradesh) are way lower than the male-female disparities in the non-tribal dominated states (including the stated districts). The second specificity of the tribal-non-tribal difference could be observed in the micro-study of Meghalaya, wherein one finds the only cases of absolute female literacy rates higher than the male literacy rates at least in 6 CD blocks in the Khasi-Jaintia hill districts, though the female

literacy rates themselves are lower than those in say Mizoram that enjoys the highest female literacy rates. This is quite unique and can be explained by the prevalence of matriliny among the Khasi-Jaintia tribes that has a predominant girl preference and the higher status (economic) enjoyed by women in these areas. Therefore, the specificity of the tribal-non-tribal difference as stated in *hypothesis-IV* is proven beyond reasonable doubts.

8.3 Generalisations:

For a developing country like India and further, in a relatively backward region like the North-East India, not only literacy and education are key to overall development but also the regional disparities in literacy and education are further a problematic. The researcher at the outset had intended to study the regional patterns in literacy development in the region at a fairly disaggregated level (of the districts) over principally the two census decades of 1981 and 1991(since the full data for 2001 is yet unavailable) and also the regional pattern of disparities in segmental disparities in literacy (1991 only) and also to explain the regional pattern of literacy and the disparity with the help of a set of explanatory variables. Further, the study was extended on similar lines to a micro-study of Meghalaya (1981 & 1991) at a further disaggregated level of the 30 C.D.Blocks in the state. The results of the analyses are both interesting and enlightening and the four hypotheses intended for testing have been proven beyond reasonable doubts. The general implications of the study are as follows:

(1) The general pattern of literacy and educational development in the region indicates three broad regional patterns, very high literate areas, Mizoram (88 percent), Tripura

(74 per cent), Manipur (69 per cent), all above the national average for 2001. Meghalaya and Assam are in the middle category, marginally below the national average and finally, the very low development in Arunachal Pradesh (54.74 per cent).[c] However, the states that had very low level of literacy are the ones, which made substantial progress within the last two decades, e.g. Arunachal Pradesh moved from 21 percent (1981) to 33 percent (1991) to 45 percent (2001), a jump of 24 percent within the last two decades. On the other hand, states with high literacy made a sluggish progress. This appears natural enough since the states that are closer to the maximum (100 percent) literacy, the marginal in literacy in respect to development of educational infrastructure will be far lower than states with very low literacy, where a little effort shall yield substantial results as can be seen in case of Arunachal Pradesh.

(2) The second general aspect to be noticed is the regional pattern in respect of the Scheduled Tribe dominated areas vis-à-vis the Non-Scheduled Tribe areas in the region. On an average, the Scheduled Tribe dominated hill states (like Mizoram, Nagaland and hill areas of Manipur) fare much better in terms of literacy development (except Arunachal Pradesh and Meghalaya to certain extent) as compared to the predominant non-tribal state of the region Assam (ST component about 10 percent only), which has a population share of nearly 70 percent of the regions total. The exception is Tripura, a predominant non-tribal state (ST component about 30%), which has very high literacy level. However, within the non-

[c] Effective literacy rate

tribal states, the tribal dominated districts have not fared well at all, e.g., Karbi Anglong and North Cachar Hill districts of Assam or for that matter the North-Tripura district of Tripura.

(3) The third important feature in literacy development is that the general pattern of female literacy in the tribal areas (states) are far better than in non-tribal areas with the exception of Arunachal Pradesh, where both overall literacy as well as female literacy levels were far lower than the other states/ districts fairly uniformly. No doubt, this could be attributed to some extent to the contribution of missionary schools and efforts in spreading literacy in the tribal territories (Arunachal, again being exception since proseletizing is prohibited in the state) and also because of the fact that these states are quite small in population size and it has been relatively easier to reach out to communities by appropriate governmental agencies in spreading literacy.

(4) An interesting feature of the analyses of segmental disparities in literacy in the region indicate (a) when literacy levels are high, as in Mizoram and Tripura the segmental disparities in literacy (male-female, rural-urban and tribal-non-tribal) tend to be low as a general rule; (b) second, when literacy rates grow faster (as in Arunachal Pradesh) the segmental disparities tend to decline quickly too. This applies to particular districts also; (c) third, of particular significance is the decline in gender disparity in literacy (male-female) when overall literacy grows quickly, the reason could be a relatively faster growth of female literacy as compared to male literacy levels.

(5) The other interesting features emanate when the literacy and the disparities in literacy are explained in terms of the segmental literacy factors as well as the independent set of variables. (a) First, it appears female literacy has very strong association with overall literacy, but not male literacy, which is a known standpoint. Additionally, female literacy associates strongly with ST literacy as well as rural literacy. Male literacy has strong association with urban literacy for obvious urban bias of the male population. (b) Second, urbanisation appears a key factor in all types of literacy development in the region, again a known position. (c) Third, at the same time urbanisation appears to promote gender disparity in literacy (male-female) which is retrogressive in character. This is because urbanisation tends to polarise educational infrastructure as well as the male, especially the literate/educated males try to migrate to urban areas, thus a predominant male bias of urban areas. Therefore, the implication is greater attention to educational infrastructure in rural areas as well as a fair dispersal of the infrastructure. This is easily said than done. Whereas, it is possible for the state agencies to initiate such dispersal in favour of rural areas, the states with predominantly private management (e.g., Meghalaya) this may not be forthcoming.

8.4 Recommendations:

The following recommendations are made in light of the study as above:

(1) Disparities, of course, are not desirable, be they regional (between regions or regional units) or segmental (between sections of the population). Removal of

regional and interpersonal or community (or gender) has been a corner stone in all developmental policies and programmes of the country right from the time of independence. Therefore, removal of such disparities in literacy in one of the most backward regions of country, the North-East India has been one of the major goals of the foregoing study. One general finding of the study does indicate that regional disparities that exist in the sphere of literacy in the region, by and large is receding. The ST communities do not suffer the age-old deprivations in the sphere of education, nor gender a threatening factor for the girl child. It is rather the non-tribal communities, especially those in the plains do suffer with low literacy levels. On the other hand, the disparities between the rural and urban are ascendant particularly since urbanisation itself is on the rise, especially in the hill areas. Typically, the urban areas and urban communities tend to "polarise" developmental infrastructure, to use Hirschman's terminology and thus, the impact on disparities themselves. Herein where lies the role of public policy and actions to diffuse this tendency of polarisation, thus concentration of educational infrastructure in urban areas by using "affirmative tools" in favour of the rural areas and communities. The urban education system also appears to be gender biased (in favour of males) and thus, tends to accentuate gender disparities.

(2) There are too, substantial disparities in educational infrastructure in the region and the manner in which the school system operates. The P-T (Pupil-Teacher) ratio varies widely, from very low in Arunachal Pradesh to very high in Meghalaya and Mizoram, i.e., the low literacy states do have a low P-T ratio as in the case of

Arunachal Pradesh, though the number of primary schools are very high in the same state. The remoteness of the hamlets demands more schools even though the number of students is small. The variation in management is wide, practically wholly by private and local body's management in Meghalaya to practically entirely by government management in Arunachal Pradesh or Mizoram. Education being a state subject, the states are perfectly free do decide the policy. However, experience shows the primary school system works more effectively under the community management system, though funded by the state. Perhaps, the states with government management of primary school need to re-look at the present system.

(3) A heartening feature as revealed is that overall the disparity in literacy is on the decline with increasing literacy particularly in respect of the gender disparity. Furthermore, the segmental disparities are lower in ST dominated areas, which shows a positive achievement. These positive features need further strengthening by the respective state governments. If overall literacy drive (e.g., Total Literacy Campaign) is strengthened in states with lower literacy rates like Arunachal Pradesh, Assam and Meghalaya, it would ultimately take care of the segmental disparities, as the verified hypotheses indicate, leading to decline in such disparities in literacy in the region.

8.5 Limitations of the Study:

There are two major limitations of the study:

(1) The study has been wholly based on secondary data sources. However, the nature of the study and type of hypotheses, chosen to be tested do not allow a scope for micro-level fieldwork, which will not serve any useful purpose in validating the stated hypotheses, which are at a macro-scale and have relevance at that scale only.

(2) The second limitation has been that the 2001 census data could not be incorporated fully, since the whole data has not been yet available (say, the segmental district wise data on rural-urban, tribal-non-tribal components etc.). However, whatever macro-level data was available has been incorporated in the study as far as possible.

It is hoped that in future studies on the subject the above limitations would be taken care of.