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RESEARCH NOTES/COMMUNICATIONS

# Elementary Education, Poverty and Gender Differentials in North-East India: Some Issues[#]

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**Abstract**

*The issue of Universalisation of Elementary Education (UEE) among the northeastern states of India using household level data from the 1993-94 NSS surveys, is examined, particularly in respect of the status of school enrollment of children in the age group of 5-14 years among these states and relationship between poverty and non-enrollment in the schools. Another issue relates to the question of gender bias among the seven states as far as schooling of the children is concerned. We find that poverty has practically no effect on school enrollment and there is no evidence of gender bias. The traditional hypothesis about lack of schooling and lower school enrollment among the socially deprived groups, STs and SCs, is not supported by the data.*

## Introduction

India has made an impressive progress in elementary education sector. The number of primary schools in the country has increased by over four times – from 2,31,000 in 1950-51 to 9,30,000 in 1998-99. During the same period, primary school enrolment increased six times, from 19.2 million to 110 million. The increase in the number of schools and enrollment in primary schools has perceptible change in the female literacy rates that increased steadily from 7.9% in 1951 to 39.29% in 1991 at all India level. Possible reason for these changes is educational spending. It increased from 1% of Gross National Product in 1947 to

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3.5% in 1991. Accessibility to primary school is enhanced in rural and urban areas, where 94% of country's rural population has schooling facilities within one-kilometer range (Government of India, 2000). Despite impressive achievements, the country is far from achieving the goal of Universalisation of Elementary Education (UEE), there are about 60 million children out of the 200 million children of school going age group (6-14 years) who do not go to school.[1] Out of this group of children, who are not attending school, a large proportion is that of girls and children of tribal and other disadvantaged categories.

The issues and problems related to elementary education have been investigated in several studies, for example, Minhas (1991), Tilak (1995), Dreze and Sen (1995), Bhatty (1998), Mcdougall (2000) and Banerjee (2000), Lieten (2001) and others. Which can be classified broadly in two categories: (i) those using primary data, e.g. Bhatty (1998), Mcdougall (2000) and Banerjee (2000), Lieten (2001) based on the field surveys and (ii) the others using secondary data, for instance, Tilak (1995), Minhas (1991), and Dreze and Sen (1995).

One of the important features of these studies is that their focus is the major states in the Indian Union. Consequently, the smaller states like those located in the northeastern region (NER) have either been left out or the characteristics of Assam (one of the major states in the region) have been assigned to them. Issues related to elementary education among the northeastern states and the effect of poverty and gender differentials in elementary education are thus examined in this write up.

The northeastern region possesses some peculiar characteristics. Our endeavour is to show how the scenario of elementary education is similar (or dissimilar?) to all India level in the light of regional specificities and peculiarities. Further, we would also like to examine the issues related to male-female children of the school going age in rural and urban sectors of the states of NER. More specifically, the focus is on the following issues:

(1) The relationship of poverty with the level of elementary education for male and female children for the rural and urban sectors.
(2) The literacy rates and gender differentials.
(3) The status of working children.
(4) The distribution of children neither in school nor working.
(5) The status of school going and working children belonging to ST/SC social groups.
(6) To investigate the possible reasons for not attending school.

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[1]The estimated number of children not attending school, however, varies in different secondary sources. For example, as per 1991 census, there were over 75 million children out of school. Agarwal (2000) reports that out of school children in the age group of 6-14 years are in the range of 50-80 million.

In addition, some of the established facts regarding schooling and child labour in India and their implications among the NER states are:

(1) Gender differentials are higher in rural sectors than urban sectors.
(2) Households belonging to ST/SC population face higher degree of poverty than general population.
(3) Children belonging to ST/SC group are more vulnerable to working for wages and less likely to attend school.
(4) *Cateris paribus* female children are more likely to be out of school than male children.

Thus the issues examined relate to comparability of the data and poverty measures, special characteristics of the states in the region, the incidence of poverty among the states and its possible consequences on the elementary education, and the consequences of regional characteristics on the schooling in the region.

## Data Issues and Methodology

### *Data and Coverage*

All the seven states in the northeastern region, namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura using the household level data collected by the National Sample Survey Organisation (NSSO), for the reference period of agricultural year, July1993 to June 1994, have been covered. Besides data collected through the socioeconomic survey, consumer expenditure (schedule 1.0) and Employment and Unemployment (Schedule 10.0), NSS data has also been used for two advantages; first, this data is in the form of unit record and suitable for detailed analysis of the problem; and secondly, because uniform design of data collection is comparable for all the northeastern states.

In the 50$^{th}$ round of socio-economic survey of NSS, the entire country was divided into 77 regions, each with rural and urban sectors. The seven states of NER consist of ten regions, Assam has three regions, Manipur has two and the remaining five states one each. For all the regions, the NSS collects data from the entire rural and urban sectors except the rural areas of Nagaland.[2]

The poverty measures are estimated from the household consumer expenditure data, while distribution of activities of the children of school going age, i.e., 5-14 years, are based on employment end unemployment household

[2]Though the data is collected by the NSS for rural sector for Nagaland also but in a limited manner. The coverage is limited to the radius of five kilometers form the Bus route in the rural areas.

schedule. The major economic characteristics of NER are based on statistics published by the North-Eastern Council, Shillong.

*Poverty Measurement*

The simplest index of poverty is Head Count Ratio (HCR), which is defined as

(1) $$HCR = \frac{q}{n}$$

Where, the population consists of n individuals with per capita total household expenditure (PCTE), $y_i$, ranked in ascending order by their subscripts of whom 'q', fall below the poverty line, 'z'. HCR gives the proportion of the population that lives below poverty line or in poverty. This index is criticized as; it is insensitive to the depth of poverty of the poor, thus violating what Sen (1976) defines as the monotonicity axiom. This axiom ensures that any poverty index should fall if there is a drop in the income of any poor individually, *ceteris paribus*.

The Weighted Poverty Gap Index (PGI), satisfies the above axiom, which is measured as:

(2) $$PGI = \frac{1}{q.z}\sum_{I=1}^{q}(z - y_i)$$

However, the PGI is insensitive to the transfer of income from the poor, thus violating Sen's Weak Transfer Axiom – the requirement that any transfer of income from a poor person to any one richer should increase poverty, so long as no one crosses the poverty line (as a result of such a transfer). There are several such measures described in literature, which satisfy the above-mentioned two and other relevant axioms. Foster, Greer and Thorbecke (1984) index satisfies these axioms (henceforth, FGT). FGT ($\alpha$), a generalized index, is a normalized weighted sum of the poverty gaps of the poor, with weights given by those poverty gaps themselves raised to an appropriate power. The FGT index is defined as

(3) $$FGT(\alpha) = \frac{1}{n.z^{\alpha}}\sum_{i=1}^{q}(z - y_i)^{\alpha}, \alpha \geq 0$$

For $\alpha$=0, the FGT ($\alpha$) equals HCR, for $\alpha$=1, the index equals PGI. In case of $\alpha$=2

(4) $$FGT(2) = \frac{1}{n.z^{2}}\sum_{i=1}^{q}(z - y_i)^{2}$$

The advantages of using weights independent of position in the distribution is that this ensures decomposability of the index across different household types. We have estimated all the three poverty indices namely, HCR, PGI and FGT ($\alpha$), for $\alpha$=2, i.e., FGT (2).

Recall that the NSS collects data expenditure distribution of the population. Consequently, we are using household consumer expenditure data for rather than income data for quantifying the poverty. We have used Official Poverty Line (OPL) based on official norm. For the year 1993-94, we have accepted the states-wise OPL from Dubey and Gangopadhyay (1998).

*Gender Differentials*

Gender gap in literacy is used in this study as a reliable and simple indicator of gender bias. This gap is measured as a difference between percentage point male literacy rate to female literacy rate. The sex ratio, i.e., the number of literate females per thousand literate males, is also used as an alternative index (of gender bias).

To assess the status of elementary education, it is essential to do an in-depth analysis of the activities of school going age children between age group 5 to 14 years. Since NSS data permits such disaggregation, the estimated number of children is further sub-divided in three categories; children in school, children working for wages, and children neither in school nor working. Children in school are those attending school. The working children are classified on the basis of activity particulars defined in the data set. This category includes children engaged in household enterprise (self-employed), workers as regular wage employee, as casual labour and in other types of works. The third group of children are those who are neither in school nor working. This category includes the children working as helper in household enterprise (un-paid), did not work but available for work and attend domestic duties only including in free collection of goods. Children of these three categories have been identified separately for male and female children, for rural and urban sectors and for all population and ST/SC population for all the states of NER.

## Major Characteristics of Northeastern Region[3]

As mentioned earlier, the northeastern region of India comprises seven states.[4] The region as a whole accounts for 7.7 per cent of the total geographical area of the country and has 3.88 per cent of the total population. The states Mizoram, Nagaland, Meghalaya and Arunachal Pradesh have predominantly tribal population. This region is rich in natural resources like land, water and forest resources, of which larger proportion is under-utilized. Assam is, relatively speaking, a more economically active state surrounded by less economically

[3] Unless specified otherwise, all the statistics reported in this section is taken from various issues of the Basic Statistics of North-Eastern Region published by the North-Eastern Council, Shillong.

[4] Sikkim has also been included in NER, under the jurisdiction of North-Eastern Council since 1997. However, as basic statistics on Sikkim is not yet published by the North-Eastern Council (Basic Statistics of NER: 2000), we have included Sikkim as the part of NER in this study.

active and smaller states. Population is mainly concentrated in Assam, whereas other states are sparsely populated.

Process of urbanization, which was initially slow before independence, got momentum afterwards with the reorganization of administrative units. Urban nodes became service centres and places for government jobs. Some industrial estates also developed in and around urban centres. The level of urbanization measured in percentage of urban population to total population is 13.89 per cent in the region, which is significantly lower than the all India level of 26.13 per cent in 1991. Assam Tripura and Nagaland are the least urbanized states while Mizoram is the most urbanized state (46.10%).[5]

Economy of NER is predominantly agriculture based. There are the places where most primitive form of cultivation i.e., slash and burn, is still being practised and there are places in the plains where modern techniques are increasingly being used in cultivation. The variety in economic structure and distribution has significant impact on social settings, which is reflected in the behaviour pattern of the people of the region.

Industrial sector is not very much developed in the region. There were only 177 large and medium scale industries in 1998, out of which 72.3 % were in Assam alone, the other six states were sharing only 27.7 % industries. Tripura, Nagaland and Mizoram were the least industrialized states sharing less than five per cent of industries. The distribution of small scale industries (SSIs) depicted the almost similar picture where almost half of SSIs of the region are located in Assam, while Arunachal Pradesh, Meghalaya, Mizoram and Nagaland are sharing less than 10% industries in each state[6]. So, Assam is an industrially active state, relatively speaking, while the other states of the region are yet to be industrially developed.

The Infrastructural sector is also less developed in the region than all India level. Per capita consumption of electricity for the year 1995-96 was much below the national average of 335.42 KW and the lowest among Tripura, Arunachal Pradesh and Nagaland. Similarly, percentage of surface road to total road length is the lowest in Assam The per capita net state domestic product at current prices for the year 1993-94 is also lower than per capita net domestic product at the national level except in Arunachal Pradesh[7]. These observations show that NER is less economically developed than the rest of India.

The basic household statistics derived from the NSS household level data for rural and urban sectors are shown in Tables 1 and 2 for all estimated households

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[5] See, Table-6, Basic Statistics of NER2000. NEC, Ministry of Home Affairs, Govt. of India, Shillong, based on Census of India 1991, Series – 1, paper-2 of 1992.

[6] See, Table -148 and 149, Basic Statistics of NER2000, NEC, Ministry of Home Affairs, Govt. of India, Shillong,.

[7] See, Table-129 and 175, Basic Statistics of NER2000, NEC, Ministry of Home Affairs, Govt. of India, Shillong, Table no. 129 and 175.

(henceforth, All) and households belong to schedule tribes/schedule casts (henceforth, ST/SC). The Average Per Capita Total Expenditure (henceforth, APCTE) in Assam is lower and in all other remaining states are having higher than the all India average in rural sector. The APCTE among ST/SC households is not much lower than All households level in the states of NER, as it was expected on the basis of similar statistics at all India level.

TABLE 1
**Basic Household Statistics of the Northeastern Region (Rural) (1993-94)**

| *State* | *NER All* | | | *SC/ST* | | | *% of ST/SC to Total Pop.* |
|---|---|---|---|---|---|---|---|
| | *Estimated HHDs ('000)* | *Estimated Pop. ('0,000)* | *APCTE*[1] | *Estimated HHDs ('000)* | *Estimated Pop. ('0,000)* | *APCTE*[1] | |
| Arunachal Pradesh | 132 | 608 | 316.35 | 108 | 521 | 305.33 | 85.74 |
| Assam | 3547 | 1807 | 258.09 | 844 | 4277 | 253.62 | 23.67 |
| Manipur | 207 | 111 | 300.04 | 89 | 442 | 293.92 | 39.99 |
| Meghalaya | 284 | 126 | 356.78 | 268 | 1194 | 354.92 | 94.92 |
| Mizoram | 70 | 35 | 389.53 | 68 | 344 | 389.47 | 98.46 |
| Nagaland | 74 | 39 | 438.65 | 69 | 369 | 434.48 | 94.70 |
| Tripura | 499 | 222 | 342.85 | 186 | 818 | 310.83 | 36.82 |
| NER All | 4813 | 2400 | 279.36 | 1632 | 7965 | 294.54 | 33.18 |
| All India[2] | 1190 | 5830 | 281.18 | 398 | 1860 | 237.17 | 31.88 |

Note: 1. The APCTE figures are expenditure (in Rupees) over 30 days.
2. The Estimated HHDs and Estimated Population is in Lakh.
Source: Tabulated by authors using NSS data.

Almost similar picture is emerging in urban sectors (Table 2), but APCTE is invariably higher in urban sectors for both the groups of population and among all the states compared to rural sector. There are four states namely Arunachal Pradesh, Meghalaya, Mizoram and Nagaland representing the predominantly higher proportion of ST/SC population to total population. Since the share of ST population is significantly higher in these regions, these states are addressed as tribal dominated states of NER.[8] It is interesting to note that all these four tribal

[8]The attempt to disaggregate the data by ST and SC groups turned out to be unfeasible as many of the states have fairly low proportion of SC population. For example, in Arunachal Pradesh estimated proportion of SC population was 0.34 per cent. Similarly, in Assam 9.02 percent, Manipur 026 percent, Meghalaya 0.66 percent, Mizoram 0.42 % percent and Nagaland 0.33 percent. It is only in Tripura that we have SC population to the tune 21.12 percent (see Dubey and Kharpuri, 1999 for details on sample size etc.). Consequently, separate analysis could be possible by two social groups only in Tripura. But Tripura being a very small state, the number of household surveyed by NSS is as such is small. Dividing it into SC and ST separately would reduce the sample size further. Thus, we combined SC and ST households in Tripura also for comparability.

population dominated states are having higher APCTE than all India level both in rural and urban sectors for all and SC/ST categories of households.

TABLE 2

**Basic Household Statistics of the Northeastern Region (Urban) (1993-94)**

| *State* | *NER All* | | | *NER SC/ST* | | | *% of ST/SC to total Pop.* |
|---|---|---|---|---|---|---|---|
| | *Estimated HHDs ('000)* | *Estimated Pop. ('0,000)* | *APCTE*[1] | *Estimated HHDs ('000)* | *Estimated Pop. ('0,000)* | *APCTE*[1] | |
| Arunachal Pradesh | 23 | 8 | 493.28 | 7 | 2 | 432.58 | 29.01 |
| Assam | 477 | 205 | 458.57 | 52 | 22 | 400.91 | 10.74 |
| Manipur | 82 | 42 | 319.68 | 16 | 7 | 314.79 | 16.72 |
| Meghalaya | 50 | 20 | 530.47 | 34 | 14 | 507.32 | 68.00 |
| Mizoram | 35 | 16 | 549.64 | 35 | 16 | 548.43 | 98.80 |
| Nagaland | 28 | 14 | 508.62 | 17 | 1 | 515.15 | 67.72 |
| Tripura | 79 | 34 | 489.88 | 17 | 7 | 420.20 | 19.01 |
| NER All | 775 | 339 | 456.22 | 178 | 77 | 459.37 | 22.70 |
| All India[2] | 434 | 1930 | 458.58 | 74 | 327 | 352.19 | 16.96 |

Note: As in Table 1.
Source: As in Table 1.

## Poverty Levels and Elementary Education

*Poverty Levels*

State level poverty indices, the HCR, PGI and FGT, are reported in Tables 3 and 4 for rural and urban sectors. There is 50.77 % of population living below poverty line, which is much higher than all India level (42.68%). But the poverty is mainly concentrated in rural areas of Assam and Arunachal Pradesh. This fact reveals the spatial variation with in NE states; Nagaland and Mizoram reported the lowest proportion of poor people as 4.24 and 10.10% respectively.

As mentioned earlier, the HCR as a poverty index does not measure the "depth" and "severity" of poverty among the poor people and to incorporate these, we have quantified PGI and FGT respectively. The level of poverty is more severe in Arunachal Pradesh and Assam, where the value of PGI and FGT are the highest among the NER states and also higher than all India level. This shows that poor in rural Arunachal Pradesh and Assam are more deprived than poor in other NER states. However, poverty is much less severe in Nagaland, Mizoram and Manipur in that order.

TABLE 3

**Poverty Measures Among the NER States in the Rural Sector** (1993-94)

| *States* | *All Population* | | | *ST/SC* | | |
|---|---|---|---|---|---|---|
| | *HCR* | *PGI* | *FGT* | *HCR* | *PGI* | *FGT* |
| Arunachal Pradesh | 51.98 | 0.1231 | 0.0426 | 52.85 | 0.1310 | 0.0468 |
| Assam | 57.05 | 0.1241 | 0.0371 | 58.49 | 0.1092 | 0.0285 |
| Manipur | 33.08 | 0.0428 | 0.0091 | 41.42 | 0.0600 | 0.0134 |
| Meghalaya | 34.36 | 0.0552 | 0.0132 | 34.72 | 0.0553 | 0.0132 |
| Mizoram | 10.10 | 0.0145 | 0.0034 | 10.25 | 0.0147 | 0.0034 |
| Nagaland | 4.24 | 0.0048 | 0.0007 | 3.98 | 0.0047 | 0.0007 |
| Tripura | 32.04 | 0.0731 | 0.0249 | 39.97 | 0.0930 | 0.0307 |
| NER All | **50.77** | **0.1084** | **0.0325** | **47.10** | **0.0893** | **0.0244** |
| All India | ***42.68*** | ***0.1030*** | ***0.0356*** | ***54.88*** | ***0.1424*** | ***0.0514*** |

Note: HCR is in percentage and PGI & FGT are ratios.
Source: As in Table 1.

TABLE 4

**Poverty Measures Among the NER States in the Urban Sector (1993-94)**

| *States* | *All Population* | | | *ST/SC* | | |
|---|---|---|---|---|---|---|
| | *HCR* | *PGI* | *FGT* | *HCR* | *PGI* | *FGT* |
| Arunachal Pradesh | 12.36 | 0.0264 | 0.0091 | 17.96 | 0.0481 | 0.0179 |
| Assam | 10.03 | 0.0127 | 0.0030 | 13.66 | 0.0242 | 0.0060 |
| Manipur | 26.67 | 0.0264 | 0.0052 | 27.19 | 0.0340 | 0.0059 |
| Meghalaya | 3.48 | 0.0056 | 0.0012 | 2.62 | 0.0038 | 0.0009 |
| Mizoram | 0.33 | 0.0001 | 0.0000 | 0.33 | 0.0001 | 0.0000 |
| Nagaland | 2.82 | 0.0020 | 0.0002 | 1.35 | 0.0016 | 0.0002 |
| Tripura | 7.31 | 0.0142 | 0.0043 | 11.57 | 0.0216 | 0.0071 |
| NER All | **10.70** | **0.0134** | **0.0032** | **8.59** | **0.0142** | **0.0036** |
| All India | ***32.87*** | ***0.0820*** | ***0.0298*** | ***48.26*** | ***0.1350*** | ***0.0528*** |

Note: As in Table 3.
Source: As in Table 1.

The poverty level in the rest of India among the ST/SC population group is higher for well-known historical and socio-economic reasons. This fact is also revealed from all India statistics from Tables 3 and 4 for rural and urban sectors both that all the three indicators of poverty are higher for ST/SC population than all India average for over-all population. But this scenario is different in NER where poverty levels for SC/ST population are less than its share in over-all population in NER rural sector. Assam and Arunachal Pradesh are not only having higher population living below poverty line but also SC/ST population has higher HCR than HCR of over-all population in these states. Arunachal

Pradesh has the highest 'depth' and 'severity' of poverty among the NE states but still lower than all India average.

Poverty measures among the NER states in urban sector in Table 4 display lower levels of poverty in general. Manipur has the highest HCR (26.67), which is still lower than all India average (32.87). The extent of poverty measured in terms of PGI reveals that depth of poverty is much less in Mizoram, Nagaland, Meghalaya and Tripura.

The gap between rural and urban poverty is more glaring in NER than all India level i.e., this gap is about four times more than the gap at all India level. This suggests that poverty in NER is concentrated mainly in rural sector, especially in Assam and Arunachal Pradesh. This fact supports the view that major economic activities and developments are highly urban biased and growth impulses are not percolating to the rural sectors. Employment opportunities are concentrated and located in urban sectors due to upcoming of state sponsored economic activities because of administrative reorganizations.

*Elementary Education*

In order to capture the status of elementary education, we first discuss the distinctive features of the literacy rates among the various groups of population and across the region. Tables 5 and 6 express the literacy rate in terms of percentage literate persons to total population based on 1991 census for rural and urban sectors. It shows that except Arunachal Pradesh and Meghalaya, the remaining NE states have higher literacy rate than all India average. Mizoram has the highest literacy rate of 82.27% in the region. As expected, the literacy rate in urban sector is higher than rural sectors.

TABLE 5

**State-wise Literacy Rates in NER (Rural)**

| *States* | *Males* | *Females* | *All Persons* | *Gender Gap* |
|---|---|---|---|---|
| Arunachal Pradesh | 47.00 | 25.31 | 37.02 | 21.69 |
| Assam | 58.66 | 39.19 | 49.32 | 19.17 |
| Manipur | 67.64 | 43.26 | 55.79 | 24.38 |
| Meghalaya | 44.83 | 37.12 | 41.05 | 07.71 |
| Mizoram | 77.36 | 67.03 | 72.47 | 10.33 |
| Nagaland | 63.42 | 50.36 | 57.23 | 13.06 |
| Tripura | 67.07 | 44.33 | 56.08 | 22.74 |
| All India | 57.87 | 30.62 | 44.69 | 27.25 |

Note: Literacy rate is reported as percent of total population in the age group of 6 years and above.
Source:Table-125, based on 1991- Census. Basic Statistics of NER: 2000. NEC, Ministry of Home Affairs, Government of India, Shillong

TABLE 6
**State-wise Literacy Rates in NER (Urban)**

| *States* | *Males* | *Females* | *All Persons* | *Gender Gap* |
|---|---|---|---|---|
| Arunachal Pradesh | 77.99 | 62.03 | 71.59 | 15.96 |
| Assam | 84.37 | 79.39 | 81.88 | 04.98 |
| Manipur | 82.11 | 58.67 | 70.53 | 23.44 |
| Meghalaya | 85.72 | 77.32 | 81.74 | 08.44 |
| Mizoram | 95.15 | 93.45 | 94.30 | 01.70 |
| Nagaland | 85.14 | 79.10 | 83.10 | 06.84 |
| Tripura | 89.00 | 76.93 | 83.09 | 12.07 |
| All India | 81.09 | 64.05 | 73.08 | 17.04 |

Note: As in Table 5.
Source: Same as in Table 5.

Turning to the literacy rate among males and females for the rural and urban sectors in order to capture the nature and extent of gender bias in literacy in NER, it is noticed that the female literacy is invariably lower than corresponding male literacy irrespective of states. But in all the NE states, female literacy rate is higher than all India average literacy (30.62%) in both the sectors. Mizoram (urban) has female literacy rate as high as 93.45%. The degree of urban bias is the difference of urban and rural literacy rate that is the highest in Meghalaya followed by Arunachal Pradesh and Assam and higher than all India average for all the three states. The urban bias of literacy is more against the females in the states of Assam and Tripura, whereas in other states this difference is well within the all India average.

The gender differentials, as shown in Tables 5 and 6, are obtained by subtracting the female literacy with male literacy rate. The degree of gender differential is lower than all India average for all the regions and the states except for Manipur (rural). Gender gap is lowest in Meghalaya (rural) followed by Mizoram. All the four tribal dominated states have lower gender gap except in the case of Arunachal Pradesh. Though the gender gap in the case of Arunachal Pradesh is relatively higher than other NE states, it is still lower than all India average. It is not surprising in the case of Meghalaya (rural), which is a tribal dominated region where major tribes practise matrilineal social system.

Literacy rate and gender gap in literacy against poverty (HCR) both for rural and urban sectors are shown in Figures 1 and 2 respectively. In the rural areas poverty, literacy and gender gap appear to be uncorrelated. However, some negative correlation between poverty and literacy and weak positive correlation between poverty and gender gap could be seen from Figure 2. This could mean that some parents are not able to send their children to school for economic reasons. The better performance of Mizoram (having highest literacy and lowest

gender gap) and to some extent Nagaland appears to be related to lower poverty levels. This, however, needs further investigation.[9]

Figure 1: **Scatter Plot of Poverty, Literacy and Gender Gap: Rural**

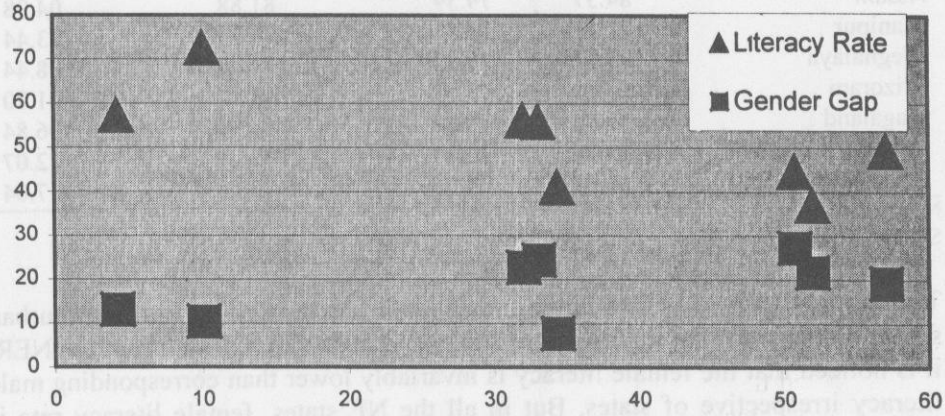
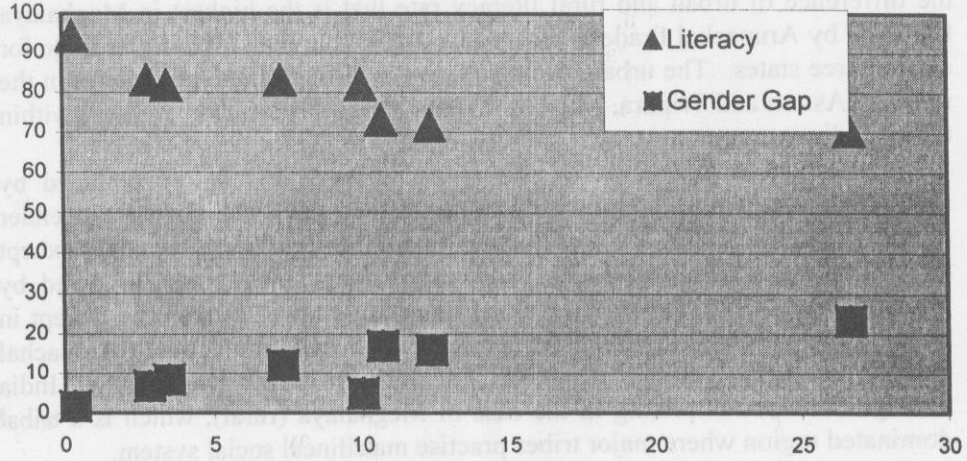



Figure 2: **Scatter Plot of Poverty, Literacy and Gender Gap: Urban**




Note: In both figures, x-axis represents poverty (HCR) and y-axis is the literacy rate and gender gap in per cent.

[9] One might argue that higher achievement in literacy could be due to missionary schools. However, the same argument does not hold in case of Meghalaya that has substantial missionary influence.

As pointed out earlier, Arunachal Pradesh (rural) and Assam (rural) are relatively poorer regions than the all India average, but Arunachal Pradesh has lower literacy rate, while Assam has higher literacy rate than the all India level. Gender differentials are lower in both the states despite the higher poverty levels. This observation indicates towards an important feature that condition of poverty doesn't lead to gender bias against the females in providing the elementary education in this part of India. This is contrary to the observation noted in other states of India (Kaul, 2001). Female literacy is considered as one of the proxy measures of social status of women. On this front, the women in NER have better social status than the all India level. It appears that the factors which discourage the female education in other parts of India like property rights and family system, which results into a lower "economic worth" and "cultural worth" of women, are not the dominating factors in determining the role of women in the society of NER, in general and tribal societies, in particular. This evidence supports the major finding of Murthy, Guio and Dreze (1997) that in traditional societies, the status of women is found better when compared with the contemporary sector of people among non-tribal societies.

The status of elementary education is further examined taking into consideration the activities of school age going children between age group 5 to 14 years. Recall that we have divided children in three categories. The distribution of the children for all population for rural and urban sectors is reported in Tables 7 and 8. The larger percentages of children are in school in the region as a whole and in all the states, except Arunachal Pradesh compared to that in India in the rural sector. Importantly the percentage of female children going to school is higher in all the states of the region. Among the tribal dominated states, Nagaland and Mizoram have almost 90 % of female children attending school. The gender differential gaps among the school going children are much lower in NER states than the all India average.

The higher proportion of school going children reduces the proportion of working children. Only close to 1% of children are working for wages, out of which female children constitute less than 1% and male children slightly more than 1%, which is below the all India average (2.99%) in rural sector. But major hurdle in the Universalisation of elementary education (UEE) is significantly large number of children that are neither in school nor working. The proportion of these children in age group of 5-14 years is 24%, though smaller than the all India average (32.89%), but still a sizeable number to tackle with. The percentage of female children not going to school is higher than male children but the gap is much smaller than the all India average. Arunachal Pradesh (rural) has the highest proportion of female children not going to school (44.35%).

The proportion of children, neither in school nor working, is about 10% in the urban sector of NER, out of which the proportion of female children is smaller than male children. Arunachal Pradesh, Assam and Manipur are the

TABLE 7
**Activity-wise Distribution of All Children in NER (Rural)**

| States | Working | | | In School | | | Neither in School Nor Working | | | Total Children | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male Child | Female Child | Total | Male Child | Female Child | Total | Male Child | Female Child | Total | Male | Female | Total |
| Arunachal Pradesh | 1.71 | 0.44 | 1.08 | 66.10 | 55.21 | 60.69 | 32.19 | 44.35 | 38.23 | 100 | 100 | 100 |
| Assam | 1.31 | 0.42 | 0.92 | 75.59 | 70.89 | 73.52 | 23.10 | 28.69 | 25.56 | 100 | 100 | 100 |
| Manipur | 0.44 | 0.00 | 0.21 | 87.17 | 86.35 | 86.75 | 12.40 | 13.65 | 13.04 | 100 | 100 | 100 |
| Meghalaya | 0.36 | 0.44 | 0.40 | 72.38 | 71.61 | 72.00 | 27.26 | 27.95 | 27.60 | 100 | 100 | 100 |
| Mizoram | 1.68 | 1.81 | 1.74 | 80.76 | 88.28 | 84.24 | 17.56 | 9.91 | 14.02 | 100 | 100 | 100 |
| Nagaland | 1.18 | 1.57 | 1.37 | 90.62 | 90.14 | 90.39 | 8.20 | 8.29 | 8.24 | 100 | 100 | 100 |
| Tripura | 1.05 | 0.49 | 0.79 | 83.63 | 82.95 | 83.32 | 15.32 | 16.56 | 15.89 | 100 | 100 | 100 |
| NER All | 1.22 | 0.45 | 0.87 | 76.78 | 73.08 | 75.11 | 21.99 | 26.48 | 24.02 | 100 | 100 | 100 |
| All India | 3.19 | 2.76 | 2.99 | 71.63 | 55.55 | 64.12 | 25.18 | 41.68 | 32.89 | 100 | 100 | 100 |

Note: (1) Figures are in percentage of respective total number of children
(2) Children are of school going age, i.e., of 5 to 14 years.
Source: As in Table 1.

TABLE 8

**Activity-wise Distribution of All Children in NER (Urban)**

| *States* | *Working* | | | *In School* | | | *Neither in School Nor Working* | | | *Total Children* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Male Child* | *Female Child* | *Total* | *Male Child* | *Female Child* | *Total* | *Male Child* | *Female Child* | *Total* | *Male* | *Female* | *Total* |
| Arunachal Pradesh | 0.00 | 0.00 | 0.00 | 70.58 | 83.53 | 76.39 | 29.42 | 16.47 | 23.61 | 100 | 100 | 100 |
| Assam | 2.83 | 4.51 | 3.66 | 83.94 | 82.88 | 83.41 | 13.23 | 12.61 | 12.92 | 100 | 100 | 100 |
| Manipur | 0.00 | 0.19 | 0.09 | 96.20 | 97.44 | 96.78 | 3.80 | 2.37 | 3.13 | 100 | 100 | 100 |
| Meghalaya | 0.00 | 0.14 | 0.07 | 96.31 | 93.76 | 95.07 | 3.69 | 6.10 | 4.86 | 100 | 100 | 100 |
| Mizoram | 0.00 | 0.00 | 0.00 | 95.55 | 95.12 | 95.34 | 4.45 | 4.88 | 4.66 | 100 | 100 | 100 |
| Nagaland | 0.71 | 0.00 | 0.44 | 91.12 | 94.10 | 92.25 | 8.17 | 5.90 | 7.31 | 100 | 100 | 100 |
| Tripura | 1.53 | 1.41 | 1.47 | 91.89 | 91.21 | 91.55 | 6.59 | 7.38 | 6.98 | 100 | 100 | 100 |
| NER All | 1.77 | 2.79 | 2.26 | 87.83 | 87.45 | 87.64 | 10.40 | 09.75 | 10.10 | 100 | 100 | 100 |
| All India | 2.12 | 1.35 | 1.76 | 85.69 | 80.85 | 83.41 | 12.19 | 17.79 | 14.83 | 100 | 100 | 100 |

Note: As in Table 7.

Source: As in Table 1.

states where proportion of male children not attending school is higher than female children. But there are also the states like Manipur, Meghalaya and Mizoram where the proportion of children not attending school is less than 5%.

The situation of school attending children is relatively much better in urban sectors, as a whole, in NER. The five out of seven states of NER (except Arunachal Pradesh and Assam) have reported more than 90% school going children. It is worth mentioning that in Arunachal Pradesh, Manipur and Nagaland the percentage of school going female children is higher than male children. This gap is the largest in Arunachal Pradesh in favour of female children. Further an in-depth analysis is needed to explain this phenomenon in urban sectors.

At the all India level, the proportion of working children in rural sector (2.99) is higher than in urban sector (1.76), but this proportion for NER urban sector (2.26) is much higher than NER rural sector (.87%). This reveals that the problem of working children is more severe in rural sector of India, while it a serious problem in the urban sector of NER. Similarly, in the urban sector at the national level the proportion of male working children (2.12%) is higher than female working children (1.35%), but this order is reversed for NER, where the proportion of female working children (2.79%) is higher than male child labour (1.77%).

Analyzing the distribution of working children among the NE states, it is found that Arunachal Pradesh, Manipur, Meghalaya and Mizoram don't report any number of working male child, while Arunachal Pradesh, Mizoram and Nagaland have not reported the cases of female working children. Assam has the largest proportion of female children (4.51%) and male children (2.83%), engaged in wage employment. This result should be seen in the light of the fact that Assam is the only state within the region, which has the largest number of small and medium scale industries, located mainly in urban areas. However, this aspect needs further investigation especially to identify the economic sectors where the working children are engaged and the possible explanations for such a high proportion of working children in particular in the case of female children.

On the basis of above observations, it can be concluded that the problems of the children not attending school is very complex as well as heterogeneous by nature. So, in order to achieve the long cherished goal of UEE, there is a need to pay special attention which should be region specific and separately for the distinctive groups of population rather than dealing the situation in an aggregate and centralized manner.

**Elementary Education and Special Group of Population**

The Scheduled Castes and Scheduled Tribes have been traditionally considered a social and economically disadvantaged group for well-known and established socio-cultural reasons prevailing in India since long. As a result, children of these

categories are reported to have lower literacy rate, higher proportion of working children and of children not attending school than the corresponding category of children belonging to general population at all India level both for rural and urban sectors. So it is proposed to pay special attention to tackle with the problems of the children of ST/SC population.

The distributions of children that belong to ST/SC population for rural and urban sectors are given in Tables 9 and 10. Reviewing the proportion of school going children in NER (rural), it is noticed that this proportion (77.64) is higher not only than the all India average of ST/SC category (55.01), but is also higher than all India average for all population (64.12). The gender gap among school going children is significantly small in tribal dominated states. The proportion of working children in ST/SC category (0.65) is much smaller than all India average (4.57) in rural sector. The 21.07% of children are not going to school out of which the proportion of female children is higher than male children. Arunachal Pradesh has the highest proportion of children (38.11), not going school among the NE states. It appears that the factors inhibiting the children of ST/SC category of population to attend the school do not prevail in NE states. So, the proportion of such children is much higher in this region. This is point to be elaborated in much detail.

The proportion of school going children in urban sector of NE is much better than rural sector, where more than 90% children are going to school among SC/ST categories of population. Manipur recorded 100% school going female children. Arunachal Pradesh, Assam, Manipur and Nagaland have higher proportion of female school going children than male children. This is in contrast with all India average for children belonging to special group population.

Five states of NE, out of which four are tribal dominated states, do not report any ST/SC children working for wages in urban sector while Assam and Tripura show the proportion of male and female children working higher than the all India averages. These two states witness the problem of having children working for wages and that is why they are not in a position to go to school. This has to be tackled by identifying the causes of this phenomenon and taking suitable remedial measures. The proportion of children, which are neither in school nor working for male and female category, is 8.8 and 7.37 respectively in the urban sector of NE. This proportion is the highest for Arunachal Pradesh, followed by Assam.

In order to achieve the goal of UEE, it is necessary to focus attention on the children, who are not attending the school. Foregoing analysis helps us in identifying the extent of such children among NE states. What comes next is to find out the reasons for not attending the school. This is an important aspect of present study, as with the knowledge of the factors, which are responsible for keeping children away from school; it would be possible to suggest the remedial measures to tackle major hurdle in achieving the goal of UEE. Tables11and 12

TABLE 9

**Activity-wise Distribution of Children of Among ST/SC in NER (Rural)**

| States | Working | | | In School | | | Neither in School Nor Working | | | Total Children | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male Child | Female Child | Total | Male Child | Female Child | Total | Male Child | Female Child | Total | Male | Female | Total |
| Arunachal Pradesh | 2.00 | 0.49 | 1.23 | 65.48 | 55.96 | 60.66 | 32.52 | 43.55 | 38.11 | 100 | 100 | 100 |
| Assam | 0.54 | 0.28 | 0.42 | 81.73 | 75.85 | 79.06 | 17.73 | 23.86 | 20.52 | 100 | 100 | 100 |
| Manipur | 0.52 | 0.00 | 0.27 | 76.34 | 73.60 | 75.00 | 23.13 | 26.40 | 24.73 | 100 | 100 | 100 |
| Meghalaya | 0.38 | 0.46 | 0.42 | 72.01 | 71.04 | 71.53 | 27.61 | 28.50 | 28.05 | 100 | 100 | 100 |
| Mizoram | 1.73 | 1.85 | 1.79 | 81.95 | 89.32 | 85.37 | 16.31 | 8.82 | 12.85 | 100 | 100 | 100 |
| Nagaland | 1.27 | 1.64 | 1.45 | 91.75 | 90.20 | 90.98 | 6.98 | 8.17 | 7.57 | 100 | 100 | 100 |
| Tripura | 1.77 | 0.28 | 1.08 | 79.98 | 78.85 | 79.46 | 18.25 | 20.86 | 19.46 | 100 | 100 | 100 |
| NER All | 0.83 | 0.45 | 0.65 | 79.66 | 75.35 | 77.64 | 19.51 | 24.19 | 21.70 | 100 | 100 | 100 |
| All India | 4.91 | 4.18 | 4.57 | 63.20 | 45.54 | 55.01 | 31.89 | 50.28 | 40.42 | 100 | 100 | 100 |

Note: As In Table 7.
Source: As In Table 1.

TABLE 10

**Activity-wise Distribution of Children Among ST/SC in NER (Urban)**

| *States* | *Working* | | | *In School* | | | *Neither in School Nor Working* | | | *Total Children* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Male Child* | *Female Child* | *Total* | *Male Child* | *Female Child* | *Total* | *Male Child* | *Female Child* | *Total* | *Male* | *Female* | *Total* |
| Arunachal Pradesh | 0.00 | 0.00 | 0.00 | 72.29 | 78.61 | 75.89 | 27.71 | 21.39 | 24.11 | 100 | 100 | 100 |
| Assam | 3.09 | 1.39 | 2.26 | 77.28 | 86.26 | 81.64 | 19.62 | 12.36 | 16.10 | 100 | 100 | 100 |
| Manipur | 0.00 | 0.00 | 0.00 | 95.82 | 100.00 | 97.76 | 4.18 | 0.00 | 2.24 | 100 | 100 | 100 |
| Meghalaya | 0.00 | 0.19 | 0.10 | 97.08 | 95.42 | 96.24 | 2.92 | 4.39 | 3.67 | 100 | 100 | 100 |
| Mizoram | 0.00 | 0.00 | 0.00 | 95.51 | 95.06 | 95.29 | 4.49 | 4.94 | 4.71 | 100 | 100 | 100 |
| Nagaland | 0.00 | 0.00 | 0.00 | 96.03 | 97.31 | 96.56 | 3.97 | 2.69 | 3.44 | 100 | 100 | 100 |
| Tripura | 2.81 | 2.82 | 2.82 | 89.24 | 85.72 | 87.23 | 7.96 | 11.45 | 9.95 | 100 | 100 | 100 |
| NER All | 0.98 | 0.67 | 0.83 | 90.22 | 91.96 | 91.07 | 8.80 | 7.37 | 8.10 | 100 | 100 | 100 |
| All India | 1.83 | 1.53 | 1.69 | 79.48 | 70.75 | 75.42 | 18.69 | 27.72 | 22.89 | 100 | 100 | 100 |

Note: As In Table 7.

Source: As In Table 1.

highlight the reasons for not attending school by male and female children of all and ST/SC population for rural and urban sectors of NE.

TABLE 11

**Reason-wise Distribution of Children not Attending School in NER (Rural)**

*(Percentage)*

| *Reasons for Not Attending School* | *All* | | *ST/SC* | |
|---|---|---|---|---|
| | *Male* | *Female* | *Male* | *Female* |
| Too young to go to school | 24.36 | 25.81 | 25.15 | 28.01 |
| Unable to cope up | 8.68 | 5.60 | 3.63 | 3.21 |
| School facility not available | 0.86 | 1.09 | 2.08 | 2.42 |
| To participate in household activities | 3.14 | 2.07 | 3.75 | 4.38 |
| To work for wages and salary | 0.71 | 0.04 | 0.57 | 0.12 |
| To take care of sibling | 0.01 | 0.05 | 0.03 | 0.12 |
| To attend household chores | 0.22 | 0.33 | 0.11 | 0.60 |
| Other members engaged in work | 0.04 | 0.80 | 0.00 | 0.83 |
| Cannot afford | 9.25 | 8.08 | 11.92 | 8.15 |
| Not interested | 27.89 | 30.20 | 19.83 | 21.22 |
| Others | 24.84 | 25.94 | 32.92 | 30.93 |
| All | 100.00 | 100.00 | 100.00 | 100.00 |

Source: As in Table 1.

TABLE 12

**Reason-wise Distribution of Children Not Attending School in NER (Urban)**

*(Percentage)*

| *Reasons for Not Attending School* | *All* | | *ST/SC* | |
|---|---|---|---|---|
| | *Male* | *Female* | *Male* | *Female* |
| Too young to go to school | 30.17 | 25.07 | 36.48 | 25.82 |
| Unable to cope up | 9.04 | 20.04 | 22.61 | 25.90 |
| School facility not available | 0.15 | 0.39 | 0.00 | 0.00 |
| To participate in household activities | 2.90 | 1.35 | 0.00 | 0.48 |
| To work for wages and salary | 0.45 | 0.00 | 0.00 | 0.00 |
| To take care of sibling | 0.07 | 0.48 | 0.40 | 0.00 |
| To attend household chores | 0.00 | 0.00 | 0.00 | 0.00 |
| Other members engaged in work | 0.00 | 0.00 | 0.00 | 0.00 |
| Cannot afford | 4.62 | 6.74 | 0.91 | 2.62 |
| Not interested | 15.96 | 13.08 | 15.50 | 8.02 |
| Others | 36.63 | 32.86 | 24.09 | 37.15 |
| All | 100.00 | 100.00 | 100.00 | 100.00 |

Source: As in Table 1.

In rural sector, the highest number of children is not attending school. As the respondents reported, they are "not interested". This happens in respect of children of all population, though this proportion is higher for female than male children. This clearly indicates the lack of awareness towards the importance and utility of school education in the mind-set of rural people, whereas in the case of SC/ST category, the respondents did not disclose the reason clearly as more than 30% children are not attending school for "other" reasons. Almost 25% of respondents disclosed that children are not attending school as "they are too young to go to school". The 10% children, more or less, could not attend school as the respondents said that they "cannot afford". In both the cases, for all and SC/ST population, the proportion of female children not going to school because they "cannot afford" is lower than it is stated for male children. This observation implies that: one, poverty is not a major reason for children not attending school; two, poverty doesn't create any gender bias against the female child or in favour of male child for depriving the school education in the rural sector of NER.

A small number of respondents mentioned the reasons for children not attending the school, like 'to work for wages', 'to take care of siblings', 'to attend the household chores', 'as other member of households are engaged in work' etc. However, to take care of siblings and attending the household chores were given major reasons for not attending school, especially by the female children in rural areas (Lieten, 2000). It appears that this is not true in the case of NE (rural) where only a small number of female children are not attending school for these reasons. Another worth mentioning fact is that the reasons for not attending school by the children in order of priority are almost same for children belonging to all SC/ST population. This is an important revelation that children belonging as well as to ST/SC population are not deprived of elementary school because of any group specific reason, while such factors are considered relevant for deprivation of school education to children of special group of population.

In the case of children belonging to households residing in urban areas of NER, the reasons for not attending school are slightly different. Though the largest proportion of respondents did not disclose the reasons, they have preferred the "other" reasons for children not attending school. Whereas, children are "too young to go to school", mentioned by about 30% of households in the case of male children and 25% in case of female children, it is important to note that in rural sector a sizeable proportion of households mentioned "not interested" as the reason for not attending the school by the children, though this proportion of households is much smaller in urban sector. This clearly indicates the high degree of awareness and understanding of the value, importance and relevance of school education prevailing in urban sector. This suggests as a policy measure, that there is a need for much more concerted efforts to enhance awareness among the rural population towards the relevance of school education.

As the level of poverty is mainly rural-centered and less severe in urban sector, the proportion of households in urban sector is much lower than in rural sector, which reported 'can not afford' as the main reason for children not attending school. But the proportion of female children not attending school for the reason 'can not afford' is higher than their respective proportion for male children, both for all and ST/SC population. The other reasons like 'school facilities are not available', 'participate in household chores', and 'take care of siblings' are not very significant reasons for not attending school both for male and female children in urban sector too, just like rural sector of NER.

It is clear from Tables 11 and 12 that both for rural and urban sectors as well two population groups, a significant proportion of children are not attending school for unspecified (second last row in the tables) reasons. The possible explanation for this may be that the respondents in the household might not like to specify the reason intentionally. And we do not have any way to correct for this. This is one limitation of the survey data that we have to bear with.

**Summary and Conclusions**

The issues and problems related to Elementary Education have generated a large literature. But the present study is an attempt to discuss the status of elementary education and its relationship with poverty and gender differentials among the north-eastern states. It is based on unit record data collected by the NSS on household expenditure and employment-unemployment for rural and urban India for the year 1993-94. The northeastern region of India comprises of the seven states, out of which four states, namely Arunachal Pradesh, Meghalaya, Mizoram and Nagaland are predominantly tribal population states.

The major findings can be summarized as follows:

(1) This region as a whole is economically less developed than the all India average in many respects. Poverty is mainly concentrated in the rural sectors of Arunachal Pradesh and Assam, where a large proportion of population of households are living below poverty line. The 'depth' and 'severity' of poverty is also higher in these states.

(2) The level of poverty among the NER states is concentrated in rural areas and the gap between rural and urban poverty is four times than the all India average. This indicates the initial stage of development, where 'economic duality' exists in the form of urban-rural dichotomy and economic growth in the urban centre does not appear to percolate and stimulate the rural economy.

(3) The view that households belonging to ST/SC classes face higher degree of deprivation than the general population appears to be valid for Assam and Arunachal Pradesh only.

(4) Despite low levels of economic development, the entire region has higher literacy rates. The degree of gender differentials in the male and female literacy rates appears to be on the lower side in the region. Even the poorest regions have higher literacy rates than at national averages. This suggests that poverty does not lead to gender bias against the female in accessing the elementary education.

(5) In the urban sector of the tribal dominated states, the population of female school going children is higher than male children. The problem of working children is concentrated mainly in the urban sector of Assam. This aspect needs further investigation.

(6) There is no evidence of poverty of the households affecting school enrollment of the girls unlike in the country as a whole. The schooling among children belonging to ST/SC groups does not differ significantly from the children belonging to other social groups.

It is to be noted that these conclusions are based on a preliminary analysis of the data. A more rigorous and robust analysis is indeed necessary to firmly establish these findings.

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