CHAPTER I

INTRODUCTION

Literacy is one of the most important indices reflecting the socio-economic and political development of the region. It is also an indication of human progress towards modernisation. Similarly, the disparities in literacy rates in different regions of the globe, particularly in developing countries, are to be construed as a reflection of the disparities in socio-economic development of those countries. A brief insight into the literacy situation at global and national levels would be of much helpful in understanding the disparities at regional level.

1.1 LITERACY SITUATION IN THE WORLD

Although the percentage of literates in the world has increased from 67.1 per cent (1550 million) to 72.2 per cent (2314 million), the number of illiterates,
in absolute figures, continues to rise inexorably from 760 million in 1970 to 889 million in 1985 (Table 1.1). Despite undeniable efforts for the eradication of illiteracy, the number of illiterates is expected to hit the 900 million mark by 2000 A.D. (UNESCO, 1985).

TABLE 1.1 Growth of Literacy Among the Adult Population (Aged 15+) in the World during 1970-1985
(Figures in millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (aged 15+)</th>
<th>Literates</th>
<th>Illiterates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>2310</td>
<td>1550</td>
<td>760 (32.9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(67.1)</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>2579</td>
<td>1790</td>
<td>789 (30.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(69.4)</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>2879</td>
<td>2055</td>
<td>824 (28.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(71.4)</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>3203</td>
<td>2314</td>
<td>889 (27.8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(72.2)</td>
<td></td>
</tr>
</tbody>
</table>


NOTE: Figures in the parentheses indicate the percentages to the corresponding population.
The distribution of literate and illiterate population (aged 15+) in different regions of the world in 1985 is given in Table 1.2. It is evident that 72.2 per cent (2314 million) of world population are literate and the remaining 889 million (27.8%) are illiterate. The literacy rate is low (32.4%) in the less developed countries, which contribute 13.6 per cent (121 million) to the total illiterate population of the world. But illiteracy is, in the main, a problem of the developing countries, as there are 869 million (97.8%) in the total illiterate population living in those countries. It is evident from Table 1.2 that there are 54 per cent (162 million) of the illiterate adults in Africa, followed by 36.3 per cent (666 million) in Asia and 17.4 per cent (44 million) in Latin America. The problem of illiteracy is causing deep concern in Asia as there are 74.9 per cent of the world illiterate population living in this region only. In other words, nearly three-fourths of the World's 889 million illiterate adults reside in this region. The respective figures for Africa and Latin America are 18.2 per cent and 4.9 per cent respectively. Thus, the centre of gravity for illiteracy seems to lie in the Asian region only.
<table>
<thead>
<tr>
<th>Region</th>
<th>Population (aged 15+)</th>
<th>Proportion to the total illiterate population of the world</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Literates</td>
</tr>
<tr>
<td>Developed Countries</td>
<td>931</td>
<td>911</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>2,272</td>
<td>1,403</td>
</tr>
<tr>
<td>Africa</td>
<td>300</td>
<td>138</td>
</tr>
<tr>
<td>Asia</td>
<td>1,633</td>
<td>1,166</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>253</td>
<td>209</td>
</tr>
<tr>
<td>Least Developed Countries (LDC's)</td>
<td>179</td>
<td>58</td>
</tr>
<tr>
<td>World</td>
<td>3,203</td>
<td>2,314</td>
</tr>
</tbody>
</table>


Note: Figures in parentheses indicate the percentages to the corresponding population, computed by the author.
1.1.1 Literacy Situation in India

India occupies seventh position in terms of area and second position in terms of population in the world. Ironically, it occupies the 120th rank in the literacy, despite its first position with 6 lakh primary school in the world. Among all the Asian countries, India alone accounts for 39.6 per cent of the total illiterate population of 666 million in Asia during 1985. In fact India has long faced an overwhelming burden of illiterates and this led to a situation when the UNESCO considered it necessary to give a call for international action to reduce illiteracy in India (UNESCO, 1978, p.14).

According to 1981 census, the total population (incl. 0 - 4 age group) in India, was 665.28 million, of which the total number of literates was only 241 million (36.2%). Table 1.3 contains the State-wise distribution of total literate and illiterate population in India for 1981. There is a large disparity in the literacy rates from one State to the another. The percentage of literacy is highest in Kerala (70.42%) followed by Maharashtra (47.18%), while Rajasthan has the lowest literacy rate (24.38%). The nine States ---
Table 1.3: State-wise Distribution of Literate and Illiterate Population
(incl. 0-4 age-group) in India, 1981
(Figures in Thousands)

<table>
<thead>
<tr>
<th>State</th>
<th>Literates</th>
<th>% of literates to total population</th>
<th>Illiterates</th>
<th>% of illiterates to total population</th>
<th>Proportion of illiterates to the total population of India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>16,035</td>
<td>29.94</td>
<td>37,515</td>
<td>70.06</td>
<td>8.8</td>
</tr>
<tr>
<td>Bihar</td>
<td>18,321</td>
<td>26.20</td>
<td>51,594</td>
<td>73.80</td>
<td>12.2</td>
</tr>
<tr>
<td>Gujarat</td>
<td>14,896</td>
<td>43.70</td>
<td>19,190</td>
<td>56.30</td>
<td>4.5</td>
</tr>
<tr>
<td>Haryana</td>
<td>4,670</td>
<td>36.14</td>
<td>8,252</td>
<td>63.86</td>
<td>1.9</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>1,818</td>
<td>42.48</td>
<td>2,463</td>
<td>57.52</td>
<td>0.8</td>
</tr>
<tr>
<td>Jammu and Kashmir</td>
<td>1,597</td>
<td>26.67</td>
<td>4,390</td>
<td>73.33</td>
<td>1.0</td>
</tr>
<tr>
<td>Karnataka</td>
<td>14,283</td>
<td>38.36</td>
<td>22,853</td>
<td>61.64</td>
<td>5.4</td>
</tr>
<tr>
<td>Kerala</td>
<td>17,925</td>
<td>70.42</td>
<td>7,529</td>
<td>29.58</td>
<td>1.8</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>14,865</td>
<td>27.87</td>
<td>37,634</td>
<td>72.13</td>
<td>8.9</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>29,621</td>
<td>47.18</td>
<td>33,163</td>
<td>52.82</td>
<td>7.6</td>
</tr>
<tr>
<td>Manipur</td>
<td>588</td>
<td>41.35</td>
<td>833</td>
<td>58.65</td>
<td>0.2</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>455</td>
<td>39.08</td>
<td>881</td>
<td>65.92</td>
<td>0.2</td>
</tr>
<tr>
<td>Nagaland</td>
<td>330</td>
<td>42.57</td>
<td>43</td>
<td>57.43</td>
<td>0.1</td>
</tr>
<tr>
<td>Orissa</td>
<td>9,027</td>
<td>34.23</td>
<td>17,343</td>
<td>65.77</td>
<td>4.1</td>
</tr>
<tr>
<td>Punjab</td>
<td>6,860</td>
<td>40.06</td>
<td>9,929</td>
<td>59.14</td>
<td>2.3</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>8,356</td>
<td>24.38</td>
<td>25,908</td>
<td>75.62</td>
<td>6.1</td>
</tr>
<tr>
<td>Sikkim</td>
<td>108</td>
<td>34.05</td>
<td>208</td>
<td>65.95</td>
<td>0.05</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>22,630</td>
<td>46.76</td>
<td>25,770</td>
<td>53.24</td>
<td>6.1</td>
</tr>
<tr>
<td>Tripura</td>
<td>865</td>
<td>42.12</td>
<td>1,188</td>
<td>57.88</td>
<td>0.5</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>30,105</td>
<td>27.16</td>
<td>80,757</td>
<td>72.84</td>
<td>19.0</td>
</tr>
<tr>
<td>West Bengal</td>
<td>22,344</td>
<td>40.94</td>
<td>32,237</td>
<td>59.06</td>
<td>7.6</td>
</tr>
<tr>
<td>India</td>
<td>241,032*</td>
<td>36.23</td>
<td>424,255</td>
<td>63.77</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Excludes Assam where census could not be held.

Source: Census of India (1981). Series-1 India, Part II-B-(i) Primary census
Abstract: General Population.
Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal --- which are categorised as educationally backward, are having large sized illiterate population.

As indicated in Table 1.3, Uttar Pradesh has the highest number of illiterates (80.8 million) accounting for 19 per cent of the total illiterate population in India. The other States that follow Uttar Pradesh are Bihar (51.6 million), Madhya Pradesh (37.6 million) and Andhra Pradesh (37.5 million) comprising 12.2, 8.9 and 8.8 per cent respectively of the total illiterate population in India. In all the nine educationally backward States except West Bengal, the illiteracy rate is exceedingly higher than the Indian average of 63.77 per cent.

1.2 REGIONAL DISPARITIES IN LITERACY RATES IN INDIA

Many of the States in India are characterised not merely by low literacy rates but also by a great disparity in the literacy levels among different segments of population as well as from one region to another. An important feature of regional disparities in literacy in India is a high degree of temporal stability which is largely the composite effect of historical process
on the one hand, and of the current developmental strategies on the other.

It may be mentioned that education is one of the whole range of services/facilities which show regional disparities in terms of their provision and the resources made available to them. Quite often, a particular region occupies an unfavourable position with respect to such facilities. Hence, the population living in such a region, unlike in the more favoured regions, will usually have unequal access to education and to a wide range of other facilities as well. Such deprivations are quite common in all the developing countries, most of them were under colonial rule for a long period.

India under the British rule was a heterogeneous region composed of various provincial governments having different educational systems and standards. There was no uniform national policy in education for the country as a whole. Education was, for the most part, a function which depended mostly upon the interest and initiative of the individual State Governments and private organisations. Further, there were wide differences in the socio-economic standards and prosperity of various States. All these factors had resulted
in wide regional variations in the literacy rates. Even after its independence in 1947, India has not overcome the hurdles in achieving a uniform literacy rate in the country. Education has been a 'State Subject'. As a result, a uniform national policy could not be implemented to fulfil the national aim and objectives of education for the country as a whole. Thus, different State Governments laid down divergent emphases on educational development. Due to historical, physical, social and economic factors, great disparities exist in literacy development among the States of the country. As a result, there has been substantial progress of literacy in some States and very little in others. Further, the gravity of the situation is such that not even a single State is found to be homogeneous in its literacy rate; and the inter- and intra-district variations in the literacy rates are quite high in the States of Indian Union.

1.3 FACTORS INFLUENCING THE DIFFERENTIAL RATES OF LITERACY

Among the factors, which have inhibited literacy efforts in India, the factors such as geographical, linguistic, demographic, educational, social and economic factors are important. These factors have also contributed to the marked regional variations in the literacy rates.
1.3.1 Geographical Factors

Location and topography of a region profoundly influence the growth of literacy. Plains and coastal areas which enjoy favourable conditions for economic development equally have higher literacy rates than the interior areas. Many remote areas in the country are still inaccessible to the schooling facilities. In the hilly and mountainous areas, which have long been isolated from the national mainstream, the literacy rate is exceedingly low. It is very difficult to provide educational facilities for the people in such widely scattered and isolated parts. The dearth of trained teachers/supervisors and teaching/learning materials, besides lack of transport/communication facilities have further complicated the process of achieving universal education in such areas.

1.3.2 Linguistic Factors

The problem of improving literacy has become very complex in India due to the prevalence of many languages, ethnic groups and cultures. Each of the 15 scheduled languages have dialects varying from 10 to 97. The total number of mother tongues found in India are 1,652 (Census of India, 1971). The number of mother tongues ranges from 58 in Orissa to 454 in Maharashtra.
Multiple languages and scripts, divided into different spoken and written dialects combined with formal and colloquial styles, make the problem of choosing a language for imparting literacy made it difficult. Thus, the progress of literacy has been hindered by the great diversity of languages, dialects and scripts.

The divergence between the spoken and written language creates some difficulties to the process of learning. The learners, in many instances, dropout from the schools/centres and relapse into illiteracy. Such a thing happens mainly due to nonavailability of follow-up reading material in several of the spoken languages or mother tongues (UNESCO 1984, p.29).

1.2.3 Demographic Factors

The growth of literacy is greatly influenced by the demographic factors such as growth, density and sex ratio of population.

Population Growth: Rapid population growth ever since 1951 not only prevented the over all progress of the country but it also raised the social costs, diluted the quality and delayed the progress towards the goals of popular education as well as created hinderance in attaining the basic aspirations for better standard
of living and health. The rate of population growth with inevitably large proportion of school-going children has made education still more a burden. The growth of educational facilities is not able to keep pace with the growth of population. Although the rate of literacy has increased during the post-independence period (from 16.67 per cent in 1951 to 36.17 per cent in 1981), the number of illiterates has also increased from 298 million to 437 million. It is estimated that the number of illiterates is increasing by about 5 million annually due to rapid population growth (Reddy, 1983).

**Density of Population**: The higher densities of population are, however, more conducive to the growth of literacy. In urban areas, for example, it is possible to organise bigger and efficient schools. On the other hand, in rural and inaccessible areas, providing educational facilities is difficult since the population is often scattered in small hamlets.

**Sex**: Sex is one of the demographic variables that influences the literacy rates in India. Education of male children is given preference to that of females. This is the result of a long, continued prejudice against
female education and also against their employment outside the home (Gosal, 1964). Schooling for girls, as observed by Epstein (1973), i. e. regarded as an unnecessary luxury for the families of the peasant castes. Early marriage may terminate a girl's schooling, and the parents are reluctant to send their female children to a school located outside the village. Thus, universally more women are illiterate than men; recent growth in literacy has favoured men over women (UNESCO, 1972, p.10).

1.2.4 Educational Factors

Government of India as early as 1950 recognised the crucial role of literacy and education in the promotion of social development and, therefore, included in the Directive Principles of the State Policy. Article 45 of the Indian Constitution promises free and compulsory education upto the age of 14 by the year 1960. Even after thirty years, since the introduction of the Constitution in 1950, the position seems to be far from satisfactory. Various accounts have fully testified to the fact that only 83 per cent of the children (Six to Eleven age group) were enrolled in Classes I - V and 63 per cent of the population
are still illiterate. The target of providing educational facilities to all children up to the age of 14 by 1960 laid down in the Directive Principles could not be achieved till now. If the Government was fulfilled this standing objective, there would not have been the problem of illiteracy so acute as it is today. Various educational factors, such as (i) accessibility to schools, (ii) school enrolment, (iii) retention and completion, (iv) educational resources, etc., have been responsible for this grave situation in the country.

**Accessibility to Schools**: This involves providing schooling facilities for all children of 6-14 age enabling them to get benefit from such facilities. Equal access to education is an essential condition for equal educational opportunity for all the children. As recommended by the Kothari Commission (1964-66) the primary schools for the children (6-11 age group) must be located at a distance not more than one kilometre from their residence. In fact, 21.5 per cent of the primary schools lie beyond this radius (Fourth All India Educational Survey, 1978). Out of a total of 9.65 lakh habitations in the country, it has been estimated that about 1.91 lakh (one fifth of the total) habitations (including 16.41 per cent habitations with population less than
300) were not served by any school at all. Further, the formal schooling facilities are not available in the habitations of sparsely-populated, inaccessible, mountainous and hilly areas. Even, in the areas served by the primary schools, the deprivation of education always strikes at the least privileged social groups in society, viz., scheduled castes, scheduled and nomadic tribes, minority groups, rural poor and urban slum-dwellers.

**School Enrolment:** If all the children who complete class IV of the formal system of schooling are, as has UNESCO (1984) considered, to have acquired retainable literacy, then the output of literates from the formal system of education -- based on the class IV enrolment during 1971-1981 -- was as shown in Table 1.4. The number of literates of all age-groups during the intercensal period 1971-1981 increased by 86.1 million (from 161.4 million in 1971 to 247.5 million in 1981), whereas the total output of literates through the schooling system was 95.0 million during the same period. The increase in the total number of literates (86 million) was less than the output of the literates through the formal schooling system (95 million). Some
## Table 1.4 Enrolment in Class IV from 1971-72 to 1980-81 and Total Number of Literates at 1971 and 1981

(Figures in millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrolment in Class-IV</th>
<th>Total No.of Literates**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971-72</td>
<td>8.2</td>
<td>161.4</td>
</tr>
<tr>
<td>1972-73</td>
<td>8.6</td>
<td>--</td>
</tr>
<tr>
<td>1973-74</td>
<td>8.4</td>
<td>--</td>
</tr>
<tr>
<td>1974-75</td>
<td>9.1</td>
<td>--</td>
</tr>
<tr>
<td>1975-76</td>
<td>9.3</td>
<td>--</td>
</tr>
<tr>
<td>1976-77</td>
<td>10.0</td>
<td>--</td>
</tr>
<tr>
<td>1977-78</td>
<td>9.9</td>
<td>--</td>
</tr>
<tr>
<td>1978-79</td>
<td>10.2</td>
<td>--</td>
</tr>
<tr>
<td>1979-80</td>
<td>10.5*</td>
<td>--</td>
</tr>
<tr>
<td>1980-81</td>
<td>10.8*</td>
<td>247.5</td>
</tr>
<tr>
<td>Cumulative Total</td>
<td>95.0</td>
<td>86.1*</td>
</tr>
</tbody>
</table>

**Source:** Education in India, 1971-72 to 1978-79.


+ : The increase during the period of 1971-1981 (247.5 - 161.4 = 86.1).
of the children, out of 95 million would have been dropped out before completing the Class IV and some of them would not have survived by 1981. The output data given in Table 1.4 indicate that the progress of literacy during 1971-1981 period mainly depended on the progress of school enrolments in class IV.

Retention and Completion: To achieve the goal of universal literacy, it is estimated that all children, who are enrolled in class I, are retained till they complete the primary level of education. A major factor undermining universal primary education is that a large proportion of children, who enrol in schools, dropout before completing the class IV. The retention rate at the primary stage (Class I - V) in India was only 38.3 per cent (UNESCO, 1984, p.49). It indicates that 61.7 per cent of the children enrolled in class I dropout before completing class V. More than 25 per cent of the children dropout before completing class II, 44 per cent before completing class III and more than 50 per cent (53.6%) before completing the class IV. This low retention and high dropout rates at the primary stages have reduced the impact of efforts made to increase the literacy rate.
Resources for Education: The qualitative and quantitative improvements in education system depend upon the type and amount of human and financial resources available for education.

Financial Resources for Education: Public expenditure on education is the dominant element and determines the scope and direction of educational development. Of the nine educationally backward States in India, eight states (Andhra Pradesh, Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal) have spent less than the national average of per capita expenditure on education during 1981-82. Consequently they lagged behind the other States in primary school enrolment (Ministry of Education, 1985, p.60). This shows that educational development is related to the volume of expenditure on education.

The provision for education, except in the Third Five Year Plan period, has been declining from one plan to another (Table 1.5). The actual expenditure in all the plan periods turned out to be much less than the allocation made in the beginning of the plans. It is evident from Table 1.5 that the share of education in the First Plan was 7.9 per cent which declined to 2.6 per cent in the Sixth Plan. The financial cuts during
<table>
<thead>
<tr>
<th>Plan</th>
<th>Total plan Outlay (in 10 millions)</th>
<th>Provision for Education Outlay (in 10 millions)</th>
<th>Proportion of Expenditure to total Education Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Five Year Plan</td>
<td>2,356</td>
<td>153</td>
<td>85 (9)</td>
</tr>
<tr>
<td>Second Five Year Plan</td>
<td>4,880</td>
<td>277</td>
<td>95 (18)</td>
</tr>
<tr>
<td>Third Five Year Plan</td>
<td>8,209</td>
<td>560</td>
<td>201 (35)</td>
</tr>
<tr>
<td>Fourth Five Year Plan</td>
<td>24,882</td>
<td>823</td>
<td>786 (54)</td>
</tr>
<tr>
<td>Fifth Five Year Plan</td>
<td>53,411</td>
<td>1,285</td>
<td>912 (55)</td>
</tr>
<tr>
<td>Sixth Five Year Plan</td>
<td>1,72,210</td>
<td>2,835</td>
<td>2,524 (12.6)</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses indicate percentages to totals, computed by the author.

* Includes Pre-school Education.
the plan periods in the education sector affected the growth of elementary education considerably. For instance, the share of elementary education in the education budget has reduced from 56 per cent in the First Plan to 36 per cent in the Sixth Plan, whereas the share of University Education went up from 9 per cent to 16 per cent.

Further, the availability of educational resources has not only depended upon the commitment of the nation as a whole, but upon the vicissitudes of the resources allocated by the States. Consequently children in Bihar, Uttar Pradesh, Orissa, Madhya Pradesh, Assam and Rajasthan were at a great disadvantage in comparison to those in Punjab, Kerala, Tamil Nadu, Gujarat and Maharashtra. This would be evident from the figures of per capita budget expenditure on education in 1982-83 which were as low as Rs.40.5 in Uttar Pradesh, Rs.49.4 in Madhya Pradesh and Rs.51.2 in Bihar, while the figures for the corresponding period are Rs.119.5 in Kerala and Rs.100 in Punjab with the all India average of Rs.68.2 (Ministry of Education, 1985, p.65).

**Human Resources for Education:** It is another component of educational resources which comprise the teaching personnel and community support. These two are critically
essential for achieving the goal of universal elementary education.

As revealed by the Fourth All-India Educational Survey (1978), out of 4.47 lakh schools in the country 8.4 per cent of the schools have remained without any teacher. Another 35 per cent (1.65 lakhs) of the schools had a single teacher to teach 3 or 4 different classes. It is very clear that these teachers cannot possibly lookafter the diverse interests and variety of educational needs of the pupils. The survey also revealed that the average teacher-student ratio at primary level was 1:41 as against the internationally accepted teacher-student ratio of 1:20. In some States, half of the teachers in the primary schools are under-trained. In some other States a considerable portion of primary teachers are not only under-trained but also under-qualified.

The success of the educational programmes, particularly primary and adult education, depends upon the support and participation of the local community. Such local support is considered to be significant not merely in terms of financial, but on the consideration of such other aspects as improvement of physical facilities,
creation of favourable environment, effective management of schools, exercise of evaluative control on the teachers and reporting.

1.2.5 Social Factors

Indian social stratification, based on caste system, generally acted as a barrier in the way of universal spread of literacy among the different segments of population. The institutionalised framework of social inequalities coupled with the variation in income distribution engendered the disparities both in the accessibility of the schools as well as the levels of educational attainment. For example, scheduled castes and scheduled tribes* in India have long been deprived of the educational opportunities due to caste demarcations, untouchability, etc.

In several parts of the country, traditional conservatism and social prejudice have prevented women and other segments of population from receiving education. Prejudice against female education, certain apprehensions on the role or status of educated females** and the

(*) Under Article 341 & 342 of the Indian Constitution, certain classes of people (socially at the lowest ladder of the society and economically backward) are declared by President's orders on scheduled castes and scheduled tribes.

(**) An educated female may become of doubtful character, or may not be capable of adjusting herself in the joint family system, or may not participate in obligatory agricultural operations, or may not remain under the control of her husband and
prevailing social milieu perceived an ideal female as a dutiful 'homebird'. Early marriage of females is an additional handicap to their education. Social taboos have also inhibited their educational advancement. Many female children are not permitted to attend the schools that are distantly located; and certain religious groups, particularly Muslims, kept them in seclusion.

1.2.6 Economic Factors

India's economy is mainly an agricultural economy. Agriculture accounts for 80 per cent of the country's national income and it directly or indirectly engages 75 or 80 per cent of the country's population. A multiplicity of factors such as pressure on land, droughts and floods, traditional and outdated farming techniques, low yields, lack of marketing facilities, inadequate credit facilities, poverty of the peasants, etc., has kept the farmers in a position just capable of feeding their families. It is also quite common for children in a cultivator's or artisan's family to contribute to the family's income at an early age. Despite the fact that primary education has been made free, the poor farmers and artisans still can not afford to send their children to school because it involves some incidental expenditure besides loss of labour at home. As a result, parents are often reluctant to send their
children to schools which are often located at distance.

Many researchers (Gosal 1964, Mukerji 1971, Sharma 1971, and Maya Banerjee 1975) found that the levels of variation in the above factors resulted in the differential rates of literacy in India. Gosal (1964) in his study on literacy in India noted that the regional differences in literacy correspond to variations in the degree of urbanisation, agricultural prosperity, period of contact with overseas people, role of the state and private organisations, and the role played by missionaries in the spread of literacy and education.

Mukerji (1971) observed that the spatial patterns of literacy are directly related to the regional variations in the socio-economic development, urbanisation, occupational composition of rural and urban population, proportion of scheduled castes and tribes, and certain intangible elements like the value system of different castes and religious groups, taboos, prejudices and preferences. He also noted that the taluks which have coastal location, commercialised agriculture and dominance of secondary and tertiary activities have higher literacy, whereas the areas with large tribal population have low literacy.

Sharma (1971) noted that the wide variations in literacy depend upon the degree of urbanisation, industrial
and commercial development, agricultural development and irrigational facilities, characteristics of the inhabitants, etc. Maya Banerji (1971) further identified the proportion of immigrants as yet another factor, in addition to those pointed out earlier, for the regional variations in literacy.

1.4 NEED TO REDUCE REGIONAL DISPARITIES IN THE LITERACY RATES

In the late sixties, the National Policy Resolution (1968) emphasised the need to make strenuous efforts in the educational sphere in order to correct regional variations and to minimise the disparities among different sections of population. In pursuance of this Resolution special incentives and facilities were provided for the development of backward regions under the Five Year Plans. Accordingly, the importance of education in economic development and the need for reducing regional disparities in education have been highlighted in every plan document. Ironically, the literacy development across different states, as per the empirical evidences, has not been uniform even after three decades of planning. The interaction of diverse forces has resulted in the emergence of differential growth rates of literacy in different regions of the country. Such a wide disparity in the literacy rates, apart from serving
as an indication of the inadequacy of the present education policy, will pose a serious problem to the socio-economic development of the region as a whole.

Removal or reduction of regional variations is now considered to be one of the major goals of social planning. The first step involved in this direction is to measure the levels of socio-economic development of the regions. It needs a thorough knowledge of socio-economic and demographic aspects as well as geographic setting which influence the literacy rates of various regions. It is also necessary to formulate appropriate education plans keeping the relative development of different areas of the state in view. Reduction of regional disparities in literacy is crucial even from the point of accelerating the growth of economy.

Not many research studies are made on the regional variations of literacy in India. However, a review is made hereunder of the few available studies that have been conducted by the geographers, economists and educators.

1.5 REVIEW OF LITERATURE

An endeavour is made here to make a retrospective study on the spatial variations of literacy carried out both in India and abroad. It is outlined broadly under
the following four areas: (a) regional disparities in socio-economic development, (b) regional disparities in educational development, (c) regional disparities in literacy rates, and (d) studies on literacy in relation to socio-economic and demographic factors.

1.5.1 A Review on Regional Disparities in Socio-Economic Development

Verma (1974) made a study of inter-district disparities in socio-economic development with an aim to identify the levels of development in different districts of Bangladesh. Seventeen indicators relating to urban population, non-agricultural labour force, power consumption, agriculture, industry, transport and education have been considered for his study. To construct the composite index of general development, the technique of principal component analysis has been employed. Based on the values of composite indices for the levels of development, the districts have been grouped into four categories.

Adopting the quartile deviation method involving thirty five indicators of development, Ashok Mitra (1961) attempted to classify the districts of India according to their hierarchical order of development in 1961.
Pal (1969) classified the districts of South India into different categories based on the values of composite development indices, which were obtained with the help of the principal component technique. He considered seven initial indices of the concentration of non-agricultural activities. The districts of Andhra Pradesh, according to his study, were classified into three categories:

Less Developed: Mahabubnagar, Nalgonda, Medak, Adilabad, Anantapur, and Cuddapah Districts;

Medium Developed: Nizamabad, Karimnagar, Warangal, Khammam, Visakhapatnam, Srikakulam, Kurnool, Nellore, and Chittoor Districts;

More Developed: East Godavari, West Godavari, Krishna, and Guntur Districts.

In yet another study to identify the levels of the development, on the basis of computed composite index values obtained with the aid of principal component analysis, Pal (1975) classified all the districts in India into six categories — Very Low, Low, Medium, High, Very High, and Extremely High. The inter-district disparities in economic development, as revealed by his study, are well pronounced in Andhra Pradesh.
Mathur (1973) made a cross-section study on the pattern of disparities in different states of India in respect of the selected variables relating to per capita income, net domestic product of the state, agricultural development, population characteristics, power consumption, industrial development and road transport to examine the degree of variability of inter-state disparities over a period of time. In another study on inter-state disparities in India, Mathur (1974) considered 13 selected economic variables relating to agriculture, transport and bank credit to analyse the variations in the development among the 16 states.

Sharma and Katiyar (1974) have attempted to determine the levels of development of 47 districts. They identified some districts as underdeveloped based on the values of composite synthetic indices of socio-economic variables.

In identifying the backward states in India and in analysing the trends of regional disparities at three points of time (1956, 1961 and 1965), Hemalatha Rao (1977) also adopted the technique of principal component analysis involving 24 indicators relating to agriculture, industrial, banking and educational development. Based on
the values of indices, 14 states have been divided into: less developed, average developed and developed states. Further, based on the rank correlation coefficients and coefficient of variation, inter-state disparities between 1956-61 and 1961-65 were also studied. She concluded that although the regional disparities have generally declined in the decade between 1956-65, however some of the states remained backward.

Jayasankar (1969), in his study to delineate Mysore state into economic regions selected some of the variables relating to social and economic development. Adopting the linear regression method, he categorized the 18 districts of Mysore state into poor, average and highly developed regions based on their respective positions in relation to the 'best fit line'.

Sarma (1974) made an attempt to analyse the extent of socio-economic disparities among regions in Andhra Pradesh over a decade (1956-57 to 1966-67). With the help of cluster formation technique involving 10 selected economic variables, he classified the districts of Andhra Pradesh into 5 regions — North Coastal Andhra (Srikakulam, and Visakhapatnam), South Coastal Andhra (East Godavari, West Godavari, Krishna and Guntur), Rayalaseema (Nellore, Chittoor, Cuddapah, Kurnool and Anantapur), Telangana (Mahabubnagar, Nalgonda, Khammam, Warangal, Karimnagar, Medak, Adilabad and Nizamabad) and Hyderabad. Further, South
over time.

All scales of analysis and they have tended to persist territorially. Inequality, the observation, are common at educational provisions in relation to its achievements.

of educational inequality on a world scale by considering
of Europe. Pye (1979) examined the territorial aspects of educational inequality even in the otherwise developed countries rooted in the social milieu and continue to constitute a hypothesis that educational inequalities are deeply entrenched at educational inequality in West Germany, validated with Wiltzmann (1977), in his study on the patterns of innovative tools in the diagnostics of the existing material.

In a number of specific case studies which made use of a number of socio-economic development was illustrated with the help of regional departments in education and the process of 1980), the relationship between tenure as well as tenure's Institute for Educational Planning (Camb and China). In a series of studies sponsored by the International pattern of regional disparities in education was made a systematic attempt to measure the nature and

1.5.2 A Review on Regional Disparities in Educational

as developed, while the remaining as backward, coastal Andhra Pradesh and Hyderabad regions were considered...
Tilak (1979) examined the inter-state disparities in educational development in India. Based on the Educational Development Index, computed from the data on enrolment ratios and institutions cost, he grouped the 21 states of the Indian Union into four categories — Advanced, Semi-Advanced, Average and Backward. He established a relationship of selected variables with educational development and he also observed the educational development as having been influenced by socio-economic and demographic factors.

Tilak (1982) further studied the educational distance (disparities) among the districts in Andhra Pradesh on the basis of aggregate educational performance, which was assessed on the basis of the final rank order scores obtained by summing up the total rank orders of individual variables. The educational development in the districts of Andhra Pradesh, based on the aggregate composite rank order scores have been classified into three categories — Developed, Average and Backward. The study has not, however, made any attempt to explain these educational disparities among the districts of Andhra Pradesh.

Usha Ram Kumar (1982) examined the inter-district variations in educational development in Karnataka in relation to economic development over a decade (1961-72).
The composite index of educational development, based on 6 educational variables, was computed for each district; while the index of economic development, evolved by Planning Department of Karnataka, was used. Together with other statistical techniques, she observed considerable educational development over a period of ten years and the disparities among the districts as having been narrowed down during the same period. She further noted a positive relationship between economic development and some of the educational variables.

Tilak and Bhatt (1984), in their study on the inter-district disparities in educational development in the state of Haryana, adopted three alternative approaches (literacy index, aggregate composite index of educational development, and cost-weighted composite index of educational development) which have, however, yielded similar results. They concluded that educational levels in the districts of Haryana have been in three stages of development — Backward, Average and Developed.

Rudolph and Rudolph (1969), Pandit (1977), and Heyne- man (1979) ranked the states by pooling together the unweighted individual ranks of individual variables of educational development. Panchamuki (1970) and Tilak
(1981) by using the technique of factor analysis, constructed the indices of educational development in different states of India. Reddy, (1979) used the taxonomic method in examining the educational development in India.

1.5.3 A Review on Regional Disparities in Literacy Rates

Geographic interpretation of the pattern and trends of Indian literacy has usually been based on perceived correspondences with the patterns of socio-economic development. Numerous explanatory factors provided by the studies of Davis (1951), Schwartzberg (1961), Sharma (1971), Krishan and Shyam (1973, 1974, 1977) and Maya Benerji (1975). In lieu of these geographic analysis of literacy, Rao (1968) adopted statistical approach (i.e., regression analysis) in his study on the literacy rates in Andhra Pradesh. He observed that the variations in literacy are in relation to per capita income, workers' participation rate and per cent of scheduled castes and tribes. He felt the necessity of an independent policy for the promotion of literacy for each zone as well as for the elimination of regional differences in literacy.

In order to identify the possible causes of broad regional variation in literacy, Schuth (1973) conducted a preliminary study at the level of smaller administrative
units, the taluk and anchal (an anchal usually covers a much smaller area than a taluk). Two districts were chosen — one in South India (North Arcot in Tamil Nadu) and another in North (Shahabad in Bihar). Both of them exhibited an internal contrast in their agricultural ecology. She employed correlation analysis and found a positive correlation between the quality of agricultural land and the level of literacy. These results were fairly well supported by cartographic analysis. She also found that the village size and location with respect to transportation have some bearing on literacy.

Based on the preliminary results of the above study, Schuth (1980) designed further research with the help of a detailed cartographic and statistical analysis of the aggregate data on five selected variables pertaining to the villages in five taluks of Bangalore district. Based on the correlation matrix and the results of the step-wise regression, she found that the five variables accounted for almost half-of the variance in male literacy and for more than a quarter of the variance in female literacy.

The correlation and multiple regression were repeated for each of the three classes of villages (small, medium and large) and the comparison of means of literacy
for various sizes of villages in each of the five sample taluks produces a strong impression of systematic change in the variables that were considered for the analysis. She showed the set of changes through a graphic summation by representing the mean values of each variable for villages with varying levels of male literacy.

Another important empirical study, conducted by Tilak (1978), analysed the disparities in the rates of literacy in the states of India. Adopting an arbitrary criterion, he classified the states into five groups — Very High, High, Middle, Low and Very Low levels — of literacy development. He considered six quantitative factors for explaining the disparities in the literacy rate with the aid of a linear regression model. He concluded that the literacy programmes are prejudiced in favour of certain sections of society — the forward communities (non-scheduled castes/tribes), the urban residents, the industrial workers and the males. He also suggested some measures for attacking illiteracy among certain sections of the society.

Maya (1981) examined the factors that influenced the variations in literacy rates in rural areas of Gujarat by drawing 789 sample villages from six districts.
Three of them had been identified with top literacy rates (group A) and the remaining three with the lowest literacy rates (group B); and group A was further sub-divided into $A_1$ and $A_2$ groups. The sample villages were chosen based on the criteria of the availability of schooling facilities, urban influence and availability of irrigation facilities. She considered five independent variables for this purpose.

A step-wise regression was adopted to study the effect of different factors on the literacy rates for different groups of villages separately. She found that different groups of villages do not have same degree of inter-relationships between the variables in view of the divergences in the socio-economic conditions among different groups of villages, and so is the degree of influence of a factor on the literacy rate. She further noticed that the explanatory power of these factors varies from 20 per cent for Group A to 54 per cent for Group B. On account of the low explanatory power of this linear function, she also tried an alternative non-linear function for these variables and introduced a proxy variable for the traditional element (i.e. the literacy rate prevalent in 1951) as an additional factor. She concluded that this traditional factor (past achievements) explained
the literacy variations substantially for all the groups of villages.

Gouri (1982) conducted a study to analyse the importance of socio-economic variables in explaining variations in the literacy rate as well as differences between the literacy rates of males and females in the southern districts of West Bengal. She used multiple-regression analysis for each of the districts. She considered three variables (Urban population, scheduled castes, and scheduled tribes) for explaining the literacy rate. She also used another three variables (Population in primary activities, Scheduled castes and Scheduled tribes) for explaining the differential literacy between male and female. She found that the literacy rates in almost all the districts are influenced by the relative magnitude of 'Urban Population'.

Raza and Agarwal (1983), in their study on the inequities in territorial distribution of literacy in India, proposed an alternative formulae — Sopher's disparity index — for measuring intra-regional inequalities between different binomial elements in the region.

They interpreted the spatial patterns which emerged from the factor analysis of the disparity indices for all 388 districts. These districts have been classified into six mutually exclusive groups on the basis
of disparity in (1) male-female, and (ii) rural-urban literacy rates. These groups are: (a) Extremely high, (b) Very high, (c) High, (d) Middle, (e) Low, and (f) Very low. They found that more than 50 per cent of the districts in India still continue to have high level of disparities in the literacy rates between male and female as well as rural and urban population.

The relationships of literacy rates with disparity indices on the one hand and economic base characteristics on the other were examined through regression analysis. They observed that the economic base of a region exerts a strong impact on the spread of literacy, and that the process of urbanisation and industrialisation strongly influence the levels as well as the inequities in the distribution of literates.

1.5.4 Studies on Literacy and Socio-Economic and Demographic Factors

Size of Population and Literacy: Venkatasubramanian (1977) established a positive relationship between the population density and literacy. But Tilak (1979) found that the population of a region is negatively related to the educational development.
Sex and Literacy. Census of India (1941) analysed the literacy rates of the nineteen largest cities in Mysore and affirmed the strong negative correlation between male literacy and sex disparity. However, Rao (1968) pointed out that the masculinity proportion does not have a statistically significant bearing on the literacy rate.

Dargar (1974) observed strong negative correlation \( r = -0.557 \) between literacy and sex ratio. Thakkar (1976) found that the economic factor, social customs, values, beliefs and society at large, play an effective role either in expanding or hampering the education of females. Gupta (1982) found that the growth of girls' education is inversely influenced by the proportion of distance between the school and the residence. He also pointed out that the dependence on girls for help at home/farm/shop by their parents/guardians and inadequate rather poor quality schooling facilities in rural areas adversely affected the growth of girls' education even at the elementary stage. Sopher (1980, p.177) observed an inverse association between literacy and sex disparity; as literacy has continued to rise, sex disparity has been decreasing substantially in each decade ever since 1891.
Caste and Literacy: Generally the percentage of literacy among the higher caste people, as observed by Prasad (1967), was expectedly higher. Gosal (1964) noted that population with a large tribal component tends to have low literacy. Gough (1968, p.148) observed that the low literacy of the depressed castes in many parts of India does not simply reflect their lower position on the economic scale, but stems from a long history of deliberate exclusion from the possibility of schooling. Even in Kerala before the British period, the indigenous institutions promoting literacy could not accommodate the "Semi-servile peasant castes", such as the Izhava, the castes of agrarian slaves — Panan, pulluvan and Nayadi (who are now categorised as scheduled castes) — were forbidden to become literate. Rao (1968) concluded that wherever the number of scheduled castes and tribes are greater, the literacy rates are found to be low.

Dargar (1974) found that the lowest literacy in western Uttar Pradesh is due to Muslim domination in population who have high sex rate and who do not permit women to go out for education because of parada system.

Tilak (1978) noted that the percentage of backward caste population (scheduled caste and scheduled tribe population) in a region is having negative influence
on the level of literacy. Yet in another study, Tilak (1979), observed the backwardness in educational development in some states, like Madhya Pradesh, Rajasthan and Orissa which have relatively high percentage of backward caste population. But, he found no statistically significant relationship between educational development and the proportion of backward caste population.

Occupation and Literacy: Sharma (1971) noted the differences in literacy rates among various occupational groups. Literacy rate is the lowest in the primary sector and it is exceedingly higher in the other two sectors, notably in the tertiary sector. Such higher literacy rates are expectedly owing to the nature of the occupations which essentially require minimum educational background and/or technical skills. Further more, these occupations are pervasive in and around urban areas where educational facilities are adequate.

Maya (1981, p.26) noted that the concentration of agricultural workers indicating lack of occupational diversification does have a significant inverse relationship with literacy rate.

School enrolment and literacy: Parulekar (1939) and Saraf (1980) established a close correspondence between the school enrolment and the level of literacy. Fisher (1982)
also noted that the countries with high rates of illiteracy have low rate of primary school attendance.

**Urbanisation and Literacy:** Gosal (1964) and Gouri (1982) noted that the literacy rate is positively correlated with the degree of urbanisation.

Sharma (1971) attributed high literacy rates in urban areas to large scale educated immigrants flocked into cities/towns in search of jobs or other gainful employment. But, a very weak positive correlation has been found between urbanisation and literacy \( r = 0.14, N = 28 \) in those countries which are not highly urbanised (Schramm and Ruggels 1967, p.65).

**Agricultural Prosperity and Literacy:** Gosal (1964) found that the agricultural prosperity is positively correlated with literacy rate. Maya Shah (1981, p.26) noted that a higher proportion of irrigated land is associated with a higher level of literacy. The consistency with which literacy rises as agricultural capability increases is illustrated by Schuth (1982, p.204), who further noted the mean values of male literacy are in accordance with the degree of agricultural capability. Good agricultural capability, for example, exhibited, among other marks of prosperity, higher levels of literacy. Kundu
and Rao (1986, p.459) found that high agricultural productivity both for land and labour goes with high literacy rate.

**Industrialisation and Literacy:** Golden (1955) found high degree of correlation between literacy and industrialisation (0.87) when industrialisation is measured by the proportion of gainfully occupied males in non-agricultural pursuits and this relationship was further substantiated by historical data for individual countries.

Fisher (1982) observed that the countries with high literacy rates are predominantly industrial rather than agricultural. Manufacturing industry accounts for 21 per cent of their gross domestic product (GDP), compared with farming's 15 per cent, despite their relatively abundant agricultural output. The opposite is true of countries with low literacy levels. In these low literacy countries, industry accounts for 9 per cent of GDP and agriculture 36 per cent.

Kandu and Rao (1986, p.461) noted the literacy rate as having positively associated with the indicators of industrial development.
Socio-Economic Factors and Literacy: Davis (1951, p.152) noted that the poverty of the people makes even the small outlay necessary for school expenses difficult for parents to bear. Tilak (1979) established a negative relationship between poverty ratio and literacy rate.

Golden (1955) noted that the level of economic development, in which level of urbanisation is usually a component, could explain much of the national variations in literacy at the global scale. He further found a strong correlation between literacy and per capita income (0.84).

Bowman and Anderson (1963) found that the countries with more than 90 per cent of literacy are very rich (the per capita GNP in 1955 in those 24 countries was more than US $500), while 32 countries with literacy rate below 40 per cent were poor (whose per capita income was less than US $300 in 1955). They also found that there was no correlation between the rate of literacy in the range of 30 to 70 per cent and economic development in 37 countries.

Harbison and Myers (1964) reported that among the 75 nations per capita GNP was correlated with primary school enrolment (0.67), secondary school enrolment (0.82)
and third level enrolment (0.74). Saraf (1980) observed that there was a significant relationship between the low per capita domestic product and low rate of literacy. He found that the states of Andhra Pradesh, Assam, Bihar, Jammu & Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh have the per capita domestic product below the national average of Rs.940 and their literacy rates were also very low. Fisher (1982) established a manifest correlation between Gross National Product (GNP) and literacy, $2,590 as against $622. Yet, certain countries with very low per capita GNP's also have very high literacy rates (e.g. Sri Lanka), while others, such as Saudi Arabia, combine low literacy scores with a per capita GNP of $7,370. The weighted average difference between the two groups is still more pronounced, $4,070 against $600. By this criterion, he concluded that the poorest countries are also those with high rates of illiteracy.

Schuman et al. (1967) observed that the literacy rates across the nations are substantially related to a wide range of variables that make up, go with, or result from, the economic development.

Venkataiah (1976, p.155) found that the socio-economic status of the Farmers, Functional Literacy programme
participants in Andhra Pradesh was positively related to their literacy attainment.

Krishan and Shyam (1978) noted that the network of roads was favourable to the growth of literacy. Schuth (1980, p.206) observed that the villages with relatively high literacy were all on, or close to a major road. She further noted that the absence of good transport to market and the lack of opportunity for frequent intercourse with outsiders, especially government workers reduces the inflow of income and information, inhibiting the growth of literacy.

Kundu and Rao (1986, p.461) observed that the literacy rates exhibit positive association with the indicators or social and economic infrastructure relating to hospital beds, roads length, railway stations, restaurants, business houses, etc.

The review has indicated the relationships between the literacy rate and socio-economic demographic variables both at micro- and macro-levels. However, no detailed study was carried out to study the spatial variations of literacy at district level, although district is considered as the basic unit for planning and implementation
of various developmental programmes. In the context of this background an endeavour is made in the present study to analyse the spatial variations of literacy in Andhra Pradesh and to identify the factors responsible for inter-district variations in literacy rate.