CHAPTER II

A PERSPECTIVE ON THE PROBLEM AND SETTING

The study of the relationships between the literacy and socio-economic development in the field of education is relatively a recent phenomenon. So far, very few interdisciplinary studies have been conducted in India, as reviewed in Chapter I, by geographers, economists and more so by educationists especially to consider the patterns of literacy both spatially and temporally. Even these studies do not strictly conform to the methodology of scientific research. The present study, an interdisciplinary in its nature, attempts to bridge, to certain extent, the research gap in the studies pertaining to literacy and development.
2.1 NEED AND IMPORTANCE OF THE STUDY

Socio-economic and demographic factors play an important role in all the developmental plans in general and educational planning in particular. Thus, the problem of regional development in socio-economic considerations is implicitly connected with the task of balanced growth of literacy all over the region. The growth of literacy or the level of literacy is counterbalanced by considerable variations among different regions. Such variations are ascribed to divergent emphases laid down on educational development by different regions. Besides, the variations are the result of the operation of a host of socio-economic, historical, linguistic and political factors, which often influence the literacy rates either directly or indirectly.

Though the problem of literacy has been variously studied, the spatial approach has much relevance, for the spatial variations of literacy are directly related, among other things, to the variations in the degree of urbanisation, industrial and commercial development, agricultural development and occupational structure of a region. It is from this point of view, this study, which

(*) The general definitions of these terms and their contextual usage in the present study are given in Glossary.
is primarily aimed to focus on the spatial variations of literacy, is also intended to provide an insight into the relationships of literacy, though exhibited at different levels, with each of the aforesaid parameters. Thus arises an apparent necessity for this type of integrated study on the literacy pattern in Andhra Pradesh, a state known for its diversity in both physical and cultural set-up.

The results of the present study would be of immense help in indentifying the regional variations in literacy and the causative factors for such variations. Thus, an understanding of the relationship of the literacy with different variables, particularly the socio-economic-demographic factors, is essential to the planners, administrators, social scientists, and to all others, who are concerned with the educational planning. The present study would also help to formulate specific developmental strategies suitable to each of the region to improve the growth of literacy and to reduce/eliminate the regional variations in literacy.

The study would become an essential aid to the policy makers and educational planners for allocating the resources proportionally among different regions and special
efforts (based on the recommendations) in favour of the deprived regions. Further, the study would help to formulate or revise and implement the educational plan at regional and sub-regional levels for achieving the balanced/universal literacy.

2.2 OBJECTIVES OF THE STUDY

Having realized the paramount significance of this study of multi-disciplinary character, the present research work, entitled, "Spatial Variations of Literacy in Andhra Pradesh", has been carried out with the following main objectives:

1) to study the trends and patterns of literacy in Andhra Pradesh,

ii) to examine the nature of relationships between the literacy and socio-economic - demographic variables,

iii) to analyse those variables which explain the variance in literacy and to assess the extent of variance explained by a set of variables on the literacy rates of different districts, and

iv) to suggest some policy recommendations for improving the literacy rates as well as for reducing the spatial variations of literacy in Andhra Pradesh.
2.3 SCOPE AND LIMITATIONS OF THE STUDY

The scope of the present study primarily concerns with the spatial variations of literacy, and secondly, to examine the relevance of socio-economic and demographic factors for such variations in the districts of Andhra Pradesh, India.

The study is mainly based on the data at district level for the year 1981 collected from various sources. As the study has taken into account the data on the selected variables for a single point of time, i.e., for the year 1981, the analysis gives only a static picture rather than providing a temporal aspect. Such a situation has arisen due to the fact that the collection of common data for all the selected variables for at least two consecutive periods (i.e. two census periods) has become a difficult task. Even it was found highly difficult to adjust, or extrapolate from, the existing data in obtaining the time-series data. Thus, this study analyses cross-sectional data for 1981 to get the spatial picture and it does not analyse the temporal changes of literacy in relation to those selected variables over a period of time. This problem, though remained as a major constraint, could not be overcome on account of technical reasons.
Another over-riding problem has been the incompleteness and nonavailability of suitable quantitative data, for example, on educational level of parents and the status of women. It is also one of the major constraints that has put premium on the scope of the present study (for further details with regard to the problems in the selection of variables, see Chapter III).

2.4 PLAN AND DESIGN OF THE THESIS

The present work is divided into seven chapters. Chapter I has dealt with the literacy position in the world and India, and regional disparities of literacy as well as the factors responsible for the differential rates of literacy in India. An exhaustive review of the earlier works on literacy and development is also presented.

In Chapter II, a perspective on the problem and the setting of the study area is discussed. Chapter III outlines the methodology and statistical techniques adopted in the present study.

The results and interpretation of data are presented in three chapters. In chapter IV, the trends of patterns of literacy in Andhra Pradesh over a period of three
decades are presented and discussed. Chapter V examines the relationship of literacy with socio-economic-demographic variables based on the results obtained through correlation analysis. Chapter VI is intended to examine the variables that explain the variability in the literacy rate and to assess the degree of influence by those variables on the literacy rates in the districts of Andhra Pradesh. Some of the policy recommendations for improving the literacy rates as well as for the reduction of spatial variations in literacy in Andhra Pradesh are also suggested in this chapter.

The last chapter provides summary and conclusions of the entire research work.

2.5 GEOGRAPHICAL SETTING OF THE STUDY AREA

2.5.1 General Description

The State of Andhra Pradesh, chosen for the present study, is one of the southern states of the Indian Union; and it was constituted in 1956 under the State's Reorganisation Act. Its emergence as a state of the Indian Union can be traced to as back as early 1950's. The State was originally carved out of the 11 districts which were separated from the erstwhile composite Madras State, and formed into Andhra State in 1953. Later, in November 1956, the nine districts (now known as Telangana) of
the erstwhile Hyderabad State were merged into the Andhra State and the entire area composed of 20 districts has been since then known as Andhra Pradesh. Another district of 'Ongole' was formed with the amalgamation of some taluks from Kurnool, Guntur and Nellore districts and it was renamed as 'Prakasam' in 1971. Again in 1979, two more districts, viz., Ranga Reddi (terminating Hyderabad rural) and Vizianagaram (with the amalgamation of some taluks from Srikakulam and Visakhapatnam districts) have been created. Thus, the State has at present 23 districts (Fig. 2.1) with territory extending over 275.1 thousand km², accounting for 8.4 per cent of the total geographical area of the country. According to 1981 census, it has a population of 535.5 lakhs, accounting for 8.14 per cent of the total population in the country (Table 2.1). The State ranks fifth in both area and population among the Indian States.

Geometrically, Andhra Pradesh is situated between the latitudes of 12°37'N. to 19°54'N. and the longitudes of 76°46'E. to 84°46'E. The State is bounded by Orissa and Madhya Pradesh on the north, Maharashtra on the north-west, Karnataka on the west, and Tamil Nadu to the South, while the Bay of Bengal forming the eastern boundary over a length of 912 Km. (Fig. 2.1). No other State in
TABLE 2.1: Area and Population in the Districts of Andhra Pradesh, 1981

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Region/District</th>
<th>Area ('000 Km²)</th>
<th>No. of Taluks*</th>
<th>Total population (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Srikakulam</td>
<td>5.8</td>
<td>14</td>
<td>19.60</td>
</tr>
<tr>
<td>2.</td>
<td>Vizianagaram</td>
<td>6.5</td>
<td>12</td>
<td>18.04</td>
</tr>
<tr>
<td>3.</td>
<td>Visakhapatnam</td>
<td>11.2</td>
<td>14</td>
<td>25.76</td>
</tr>
<tr>
<td>4.</td>
<td>East Godavari</td>
<td>10.8</td>
<td>19</td>
<td>37.01</td>
</tr>
<tr>
<td>5.</td>
<td>West Godavari</td>
<td>7.8</td>
<td>14</td>
<td>28.74</td>
</tr>
<tr>
<td>6.</td>
<td>Krishna</td>
<td>8.7</td>
<td>18</td>
<td>30.48</td>
</tr>
<tr>
<td>7.</td>
<td>Guntur</td>
<td>11.4</td>
<td>21</td>
<td>34.35</td>
</tr>
<tr>
<td>8.</td>
<td>Prakasam</td>
<td>17.6</td>
<td>17</td>
<td>23.30</td>
</tr>
<tr>
<td>9.</td>
<td>Nellore</td>
<td>13.1</td>
<td>15</td>
<td>20.15</td>
</tr>
</tbody>
</table>

**COASTAL ANDHRA**

| 10.   | Chittoor          | 15.1            | 15             | 27.37                      |
| 11.   | Cuddapah          | 15.4            | 12             | 19.33                      |
| 12.   | -Anantapur        | 19.1            | 17             | 25.48                      |
| 13.   | Kurnool           | 17.7            | 13             | 24.07                      |

**RAYALASPEMA**

| 14.   | Mahabubnagar      | 18.4            | 13             | 24.45                      |
| 15.   | Ranga Reddi       | 7.5             | 11             | 15.82                      |
| 16.   | Hyderabad         | 0.2             | 4              | 22.61                      |
| 17.   | Medak             | 9.7             | 11             | 18.07                      |
| 18.   | Nizamabad         | 8.0             | 9              | 16.80                      |
| 19.   | Adilabad          | 16.1            | 11             | 16.39                      |
| 20.   | Karimnagar        | 11.8            | 14             | 24.36                      |
| 21.   | Warangal          | 12.9            | 15             | 23.00                      |
| 22.   | Khammam           | 16.0            | 12             | 17.52                      |
| 23.   | Nalgonda          | 14.3            | 15             | 22.80                      |

**TELANGANA**

| ANDHRA PRADESH | 275.1 | 316 | 535.5 |
| ALL INDIA     | 3,287.3 | --- | 6,851.9 |


NOTE: (*) A Taluk is a smaller administrative unit in the district.
India has such a long coast line. There are 10 ports sheltered on this long coastline; one major port at Visakhapatnam, two intermediate ports at Kakinada and Masulipatnam, and seven small ports.

2.5.2 Relief

Andhra Pradesh is endowed with a variety of relief features. About 35 per cent of the total area of the State lies between 0 - 150 meters M.S.L. forming the coastal plain. About 15 per cent of the land is distributed between 150 and 300 meters, while about 37 per cent of the land between 300 and 600 meters, which together form the plateau region consisting of peneplained surfaces.

About 13 per cent of the area of the State is occupied by hilly tract with an elevation of above 600 meters and as much as 10 per cent of this hilly tract lies between 600 and 900 meters.

2.5.3 Topographical Division

In terms of general relief and structure, the state can be divided into three natural regions, viz., (i) The Coastal Plain; (ii) The Eastern Ghats; and (iii) The Interior Peninsular Plateau.
i) The Coastal Plain: The littoral part of Andhra Pradesh is wider in the middle and tapers to the north and south. Visakhapatnam, Vizianagaram and Srikakulam Districts, constituting the narrow coastal plain in the north, are however dotted with numerous outliers of the Eastern Ghats.

The broad central plain, covering East Godavari, West Godavari, Krishna and Guntur districts, has a width generally ranging from 70 to 75 km. and in some places even upto 100 km. It includes the fertile deltas of Godavari and Krishna rivers. The recent alluvial deposits with high proportion of silt are extensively found here and these are agriculturally very productive.

The narrow coastal plain on the south has a width of 50 to 60 km. occupied by Prakasam and Nellore districts. This part of the plain is often interspersed by laterite patches and by the blown-out sands of the shore attaining the shape of sand dunes. With the exception of the Smaller Pennar delta, most of this plain is relatively poor in fertility.

ii) The Eastern Ghats: These are a chain of broken hills bordering the peneplained plateau in the interior. The Eastern Ghats in Srikakulam and Visakhapatnam districts, reach to a maximum elevation of 900 to 1,500 meters.
The rampart of the eastern hills is completely breached for 160 km. between the Godavari and Krishna rivers. In the northern portion, the Eastern Ghats, mostly composed of khondalites and charnockites, are highly dissected and intervened by a number of valleys. Here, the width is between 60 and 70 km. and the elevation in several parts reaches above 1200 meters. South of Krishna river lies the Cuddapah range of hills. Here, the Ghats, mostly composed of massive quartzites, are formed into a series of ranges — Nallamalai, Velikondas, Erramalais, Seshachalam, and Palakonda. These hills vary in elevation between 600 and 1350 meters. These ghats are agriculturally least important but they have some forest wealth. The topography in the longitudinal valley favours the construction of large tanks by bunding the transverse tributaries.

iii) The Peninsular Plateau: The plateau region consists of almost all Telangana districts and major part of the Rayalaseema districts. The interior plateau formed with a long belt of old peneplains is chiefly developed on gneisses and granite rocks. The gneisses are highly weathered and eroded forming a peneplain topography; and the soils formed on these formations are light as well as poor in their fertility status. The undulating
senile topography of this region is intersected by broad, open and graded valleys which are agriculturally important. In the western and north-western parts of the plateau, black cotton soils developed on the Deccan trap are agriculturally rich but they suffer from low rainfall and lack of irrigation facilities.

2.5.4 Climate

Monsoon type of tropical climate is generally prevailed all over Andhra Pradesh, yet it may be broadly classified into 2 sub-types: (i) Tropical Rainy, and (ii) Hot Steppe (IMD, 1973, p.1). Hot Steppe type of climate is noticed in the South-Western portion of the state and in the rest of the State, the climate is of 'Tropical Rainy'. Maximum temperatures occur in the Summer Season (March - May) varying between 37°C and 44°C and the minimum temperatures in the Winter Season (December - February) ranging between 14°C and 19°C.

Rainfall: There are wide variations in the distribution of rainfall both spatially and temporally. The Western Rayalaseema receives less than 60 cm. of annual rainfall, while the north and north eastern parts of the state receive more than 100 cm. The rainfall decreases from north-east to south-west and there is a gradual decrease towards the interior from the east.
The number of rainy days are expectedly less in Rayalaseema than in the coastal and Telangana regions. The total number of rainy days vary from a bare minimum of 35 days in Anantapur district to a maximum of 56 days in West Godavari district.

Droughts and Floods: The frequent recurrence of droughts is the common feature rather becoming a regular annual phenomenon in this state particularly in the South western parts of the State. Low rainfall with high variability and long dry spells with high rate of evapotranspiration are the root causes for severe droughts in Anantapur, Cuddapah, Kurnool, Mahabubnagar, Nalgonda, Prakasam and Chittoor districts. The occurrence of floods in the state is yet another natural disaster especially in the coastal areas where the severe cyclonic storms cause heavy loss of life and property.

2.5.5 Irrigation

The State is drained by 40 major, medium and minor river basins. The three major river systems — Godavari, Krishna, and Pennar — have a large irrigation potential covering 72.7 per cent of the total irrigated area.

According to the Second Irrigation Commission Report (1972), Andhra Pradesh has an aggregate irrigation potential
of about 10.32 million hectares comprising about 6.48 million hectares of surface water under major and medium irrigation, about 2.02 million hectares under minor irrigation, and about 1.82 million hectares of ground water resources. As against this potential, the gross irrigated area in Andhra Pradesh in 1984-85 was only 4.47 million hectares accounting for only 36.6 per cent of the total irrigation potential of the State.

Among the irrigation projects in the State, Nagarjuna Sagar Project across the river Krishna takes pride of place. Other major projects are the Pochampadu Project on the river Godavari, the Tungabhadra Low and High Level Canals as well as K.C.Canal (Kurnool - Cuddapah Canal), the Godavari Barrage at Dowleswaram, the Prakasam Barrage at Vijayawada and Vamsadhara Project. As many as 54 major and medium irrigation projects have been developed in the State. Apart from these, there are thousands of tanks which form the main sources of irrigation particularly in Rayalaseema region.

2.5.6 Regions of Andhra Pradesh

On the basis of socio-economic development and politico-historical antecedents, the state is divided into three regions, viz., Coastal Andhra, Telangana and Rayalaseema (Fig.2.1). Administratively these three regions
are further divided into 23 districts and 316 taluks/Tahasils (Table 2.1).

The Coastal Andhra Region: The nine districts of Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Prakasam and Nellore comprise the coastal Andhra region. This region contains the coastal plain as well as numerous outliers of the Eastern Ghats. The fertile deltaic portions formed by the three major rivers — Godavari, Krishna, and Pennar — are agriculturally the potential zones. Most of the paddy as well as other important food and commercial crops are grown in this area. Because of the region's agricultural and commercial importance, trade, transport and allied systems are well developed. The existence of a chain of ports along the eastern coast is an advantage which adds to the development potential of the region. Excepting Srikakulam and Nellore, industries are also fairly concentrated in all the districts of the coastal region.

The Rayalaseema Region: The region comprising the four districts of Chittoor, Cuddapah, Anantapur and Kurnool has long been known as the "Stalking ground of famines".

(*) Recently these 316 taluks have, however, been terminated by 1104 revenue mandals, which are mostly in conformity with the erstwhile firkas — the intermediate revenue units of the taluks.
It is the most sparsely populated and economically the most vulnerable part of Andhra Pradesh. The soil is rocky and unyielding, the rainfall is scanty and uncertain. Confronted by frequent famines and droughts, farmers struggle for existence. In the areas serviced by irrigation canals and tanks one or two paddy crops are usually grown, but other crops such as sugarcane, turmeric, chillies, banana, and vegetables are intensively grown. The region has considerable forest and mineral resources. Industrially, the Rayalaseema region is the most backward in the State, although Kurnool district has some textile mills and a modest food processing industry.

**Telangana Region:** The ten districts of Mahabubnagar, Rangareddi, Hyderabad, Medak, Nizamabad, Adilabad, Karimnagar, Warangal, Khammam and Nalgonda constitute the Telangana region. As a part of the erstwhile Hyderabad State, Telangana still appears to be distinct, particularly in its culture and economy, from the rest of Andhra Pradesh. Centuries of feudal rule left its economy stagnant and under-developed (NCAER, 1962, p.7). Vast land area is still remain barren, and its agriculture is confined to growing some food crops covering over three-fourths of the net sown area. Rice and Jowar——the two main staples——are grown in all the districts of Telangana and dominate in the cropping pattern.
Though the region, as a whole, has a weak industrial base, is relatively in the advanced stage of industrial development. But most of the industrial activity in Telangana is concentrated in and around the twin cities of Hyderabad and Secunderabad, while several other districts are in the initial stage of industrialisation. The region is well endowed with mineral resources, which add to its industrial potential and mark out the direction of its future development.

The foregoing brief description of the regions of Andhra Pradesh gives a concise picture of the study area. In view of the physical diversity accompanied by divergent socio-economic and political conditions within the state, no unified education policy was implemented until 1956. It was felt that the conclusions derived from the analysis of a variegated state would be more meaningful than the ones formulated from a relatively homogeneous region (state); and hence Andhra Pradesh has been chosen as the area for the study of spatial variations in literacy.