1.1 A PERSPECTIVE ON THE STUDY

Industry is the most powerful catalyst which can spur the growth of other sectors. The agriculture and service sectors cannot grow without their linkages with the industry. On the other hand industry too cannot exist without its linkages with agricultural and service sectors. Worldwide the contributions of agriculture and service sectors, to the gross domestic product, are more than that of the manufacturing sector. This is true in the case of India and Andhra Pradesh as well.

In the words of Smith (1971, p.1), “An understanding of the nature and operation of economic systems is one of the most important contemporary intellectual requirements. This is not only to satisfy man’s natural curiosity in a world that is becoming more and more complex, from an economic point of view, but also to provide a sound basis for planned development, that is increasingly necessary in
advanced nations as well for those in earlier stages of economic
growth."

In the present day world we are contending with seemingly intractable problems of population growth, fast vanishing non renewable resources, a deteriorating physical environment, widening disparities between regions and/or between sections of the people. Emergence of some dynamic new industrial regions around urban centres in some selected fields, further complicated the economic scene, increased the disparities and the different sectors of the economy have become more interdependent than before. This has complicated the old problems of backwardness and created new problems due to location-specific development. From the preceding discussion it is clear that the developmental problems are spatially related and hence a spatial approach to the problem will throw light on the development, structure, regional disparities and problems and prospects of the industrial sector.

1.2 THE CONCEPTS OF INDUSTRY AND INDUSTRIALISATION

Prof. Robinson has defined the term industry as “a group of firms producing the same commodity for the same market”. Hence the term industry does not mean a single unit or factory but it is a group of
units or factories consuming the same raw materials and producing the same finished products, using similar process of conversion.

The term industrialisation is used to designate the growth of manufacturing industry. It is defined as the process in which changes of a series of strategical production functions are taking place. It involves those basic changes that accompany the mechanisation of enterprise; the building of a new industry, the opening of a new market and the exploitation of new territory. This is in a way a process of deepening as well as widening of capital.

During the last two centuries strategical innovations have brought into being and intensified a process which is termed as industrialisation. Thus industrialisation is a process in which scales and ranges of returns are continuously created and frequently prolonged and enlarged (Kuchhal, S.C 1972, p.2). In India the strategical innovations imported during the colonial period, the economic reforms that are going on continuously after independence in general and since 1990 in particular, aiming to work for the maximum good of the people, have influenced the course of industrialisation along with other major components of the economy viz., agriculture and services.
Further, industrialisation is organically linked to both the social and economic past and to parallel process of economic and social development. Society progresses from the subsistence phase to commercial phase and to an industrial phase. This industrial phase further involves three stages. In the first stage secondary activity is concerned with the processing of primary products like milling grain, extracting oil, preparing skins, tanning leather, spinning vegetable fibres, preparing timber and smelting ores. The second stage, in the evolution of industry, comprises transformation of materials, like making bread, footwear, metal goods, cloth and furniture. The third stage consists of the manufacturing of machines and other capital equipments.

Andhra Pradesh though endowed with rich mineral resources, still remains essentially an agricultural state without appreciable industrial development. (Venugopal Rao C, 1989). “Industrial activity has not grown fast enough to absorb the growing workforce or to significantly contribute to the growth of the economy. The percentage of the population relying on non-farm occupations in the State is still less than 10.0 per cent. Employment in the factory sector per lakh population is only 6.8 as against 8.6 in Tamilnadu and 12.0 in Maharastra. The per capita value added by manufacturing is Rs.215 in the State against All India average of Rs.307. It is Rs.457 in Tamilnadu
and Rs.864 in Maharashtra in 1988-89". (Andhra Pradesh, VIII Plan, 1992-97, p.69). Moreover most of the industries belong to first phase concerned with the processing of primary products and are located in small and medium towns. The second phase industries are located only in a few medium towns and in large cities. The third phase industries are entirely confined to a few large centres like Hyderabad, Vijayawada and Visakhapatnam.

The State of Andhra Pradesh is a late entrant on the industrial scene of India. In 1960-61 the contribution of manufacturing sector to the gross domestic product (GDP) of Andhra Pradesh was only 7.0 per cent as against 15.0 per cent in India. The share of mining and quarrying was only 0.5 per cent as against 1.2 per cent in India. The agricultural sector accounted for as much as 59.7 per cent of the GDP as against 46.4 per cent in India. The share of tertiary sector was 27.6 per cent as against 30.2 per cent in India. During the period 1960-61 and 1994-95 the share of agricultural sector in the GDP has come down to 35.7 per cent in Andhra Pradesh (30.4% in India) while the share of manufacturing sector increased to only 10.3 per cent as against 16.5 per cent in India. It is the tertiary sector which has increased tremendously to 43.6 per cent in 1994-95 (45.4 % in India) (Table 1.1).
**TABLE 1.1**

CONTRIBUTION OF DIFFERENT SECTORS TO GROSS DOMESTIC PRODUCT IN ANDHRA PRADESH

(Figures in Percentages)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>59.7</td>
<td>51.0</td>
<td>47.3</td>
<td>43.1</td>
<td>36.6</td>
<td>35.3</td>
<td>31.0</td>
<td>35.7</td>
<td>30.4</td>
<td></td>
</tr>
<tr>
<td>Mining &amp; Quarry</td>
<td>0.5</td>
<td>0.8</td>
<td>0.9</td>
<td>1.0</td>
<td>1.3</td>
<td>1.0</td>
<td>1.3</td>
<td>1.1</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Primary Sector</td>
<td>61.8</td>
<td>53.5</td>
<td>50.1</td>
<td>46.6</td>
<td>39.8</td>
<td>38.7</td>
<td>34.7</td>
<td>38.2</td>
<td>34.6</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>7.0</td>
<td>9.7</td>
<td>13.3</td>
<td>11.2</td>
<td>16.4</td>
<td>13.7</td>
<td>20.6</td>
<td>10.3</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>Secondary Sector</td>
<td>10.6</td>
<td>16.0</td>
<td>19.6</td>
<td>16.6</td>
<td>23.0</td>
<td>20.9</td>
<td>26.4</td>
<td>18.2</td>
<td>24.0</td>
<td></td>
</tr>
<tr>
<td>Tertiary Sector</td>
<td>27.6</td>
<td>30.5</td>
<td>30.3</td>
<td>36.8</td>
<td>37.2</td>
<td>40.4</td>
<td>38.9</td>
<td>43.6</td>
<td>45.4</td>
<td></td>
</tr>
</tbody>
</table>
The industrial backwardness of Andhra Pradesh is further highlighted by the per capita industrial consumption of electricity during 1994-95. In the consumption of low and medium voltage, Andhra Pradesh ranks 17th with 16.6 Kwh as against all India average of 24.5 Kwh. Gujarat ranks first (71.1 Kwh) followed by Punjab (69.9 Kwh), Tamilnadu (39.7 Kwh), Maharasra (30.8 Kwh), Karnataka (19.3 Kwh) and Kerala (18.5 Kwh). In the case of high voltage consumption, Andhra Pradesh ranks 7th with 90.5 Kwh as against 310 Kwh in first ranking Goa, 209 Kwh in Punjab, 166 Kwh in Maharasra, 164 Kwh in Gujarat, 136 Kwh in Tamilnadu, 85 Kwh in Kerala and 83 Kwh in Karnataka. This clearly indicates that the State of Andhra Pradesh is lagging behind many other States in industrial development.

1.3 BRIEF REVIEW OF LITERATURE


Venugopal (1989), Reddy, M.V. (1989) and Ramakrishna (1988) have also worked on topics related to industrial geography of India and Andhra Pradesh.

Different authors studied various aspects of industrial geography in general and industrial geography of India and Andhra Pradesh in particular. The State of Andhra Pradesh was formed only in November 1956 and studies of the industrial economy of the State in particular, appeared since late 1950s.

In his work on economy of Andhra Pradesh, Ramanadham, V.V. (1959) dealt with the economic condition of the State and studied the industrial structure, public enterprise, trade, transport and organisation. As the book was published just three years after the formation of the State, the author could not analyse and make a comparative study of Coastal Andhra, Rayalaseema and Telangana due to non-availability of the data.

In 1962 National Council of Applied Economic Research made a comprehensive survey of various industries in the State and published a Techno-economic Survey of Andhra Pradesh. The book analysed the resource base of Andhra Pradesh, identified the strong and weak points and suggested suitable guidelines for the development of the State’s economy.
A survey of industries in Telangana was published by Narayana, B.K. (1962). Here he has dealt with only industries in Telangana. Similarly Reddy, K.Vithal (1971), Ramakrishna, S. (1988) in their studies have examined the structure and growth of small scale units in Telangana and their role in the development of the region.

The problems and development of industries in India in general and Andhra Pradesh in particular was published by Vepa Ram, K. (1968). Here he has made a detailed study of small and rural industries, which form the bulk of the industrial sector in Andhra Pradesh.

Ramakrishna Sarma, K. (1982) made an empirical study which broadly covered the period between 1960 and 1976, and examined the inter regional and intra-regional disparities in industrial economy of Andhra Pradesh. He also discussed about growth and problems of different sectors of industry such as Large and Medium scale, Public and Corporate sectors. He also examined the role of different state level promotional agencies in the industrial development of Andhra Pradesh. He also made a study of the impact of incentive schemes on the development of backward areas of the State and offered concrete suggestions.


1.4 OBJECTIVES OF THE STUDY

1. To study the regional setting to assess the resource potential in the study region.

2. To study the spatial and temporal variations in the industrial development during the period 1970-1995.

3. To find out the level of industrialisation and identification of industrial regions.

4. To formulate a strategy for balanced industrial development in the future in different regions of the State to minimise the regional disparities.

1.5 HYPOTHESES

The following hypotheses are proposed to be tested in the present study:
1. The study region has good resource potential, but the industrial development is not in tune with the availability and distribution of resources.

2. There is a disparity in the location of industries even in the case of foot-loose industries.

3. There are regional disparities in the level of industrial development in the State.

1.6 DATA BASE AND TECHNIQUES USED

The work is purely based on secondary data. The main sources of the data are publications of Industries Informatics Centre, Hyderabad and Directorate of Economics and Statistics, Government of Andhra Pradesh, Hyderabad. The other sources are Economic Surveys of India, Andhra Pradesh and VII and VIII Five Year Plans of Andhra Pradesh. The industries are classified into two major categories namely (1) Small Scale Industries, and (2) Large and Medium Scale Industries, based on capital investment, which is periodically revised by the Government as shown below.
TABLE 1.2
CLASSIFICATION OF INDUSTRIES BASED ON CAPITAL INVESTMENT

<table>
<thead>
<tr>
<th>Category</th>
<th>Investment limit in lakhs</th>
<th>1986</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tiny Industries</td>
<td>&lt; 5</td>
<td>&lt; 25</td>
<td></td>
</tr>
<tr>
<td>2. Small Scale</td>
<td>5 - 60</td>
<td>25 - 300</td>
<td></td>
</tr>
<tr>
<td>3. Medium Scale</td>
<td>60 - 300</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4. Large Scale</td>
<td>&gt; 300</td>
<td>&gt; 300</td>
<td></td>
</tr>
</tbody>
</table>

The large and medium scale industries are grouped into 12 categories and small scale industries into 16 categories. The data is collected for each industrial category on three parameters viz., (1) No. of units, (2) Capital Investment, and (3) Employment, taking district as the study unit. The data is summarised and analysed using suitable statistical techniques, discussed in detail at the beginning of each chapter. The results are visually presented using appropriate cartographic techniques.

1.7 SCOPE AND LIMITATIONS OF THE STUDY

The present study examines the growth and development, spatial pattern, structure and level of industrialisation. Based on these aspects industrial regionalisation is done taking district as the study unit. The limitations of the study are that the above aspects are studied
based on industrial categories but not based on individual industry. The large and medium scale industries are grouped into 12 categories and small scale industries into 16 categories. This sometimes gives a generalised picture masking the characteristics of individual industry. It is recommended to undertake a separate study for each industry in the future. Due to data, time and resource constraints, the growth and development of only large and medium scale industries is studied and not of small scale industries. The study covers a twenty five year period from 1970 to 1995.

1.8 ORGANISATION OF THE STUDY

The present study is divided into eight chapters.

Chapter - I : A Prologue and Perspective

It deals with concepts, importance, objectives, sources of data, methodology and limitations, review of literature and organisation of the study.

Chapter - II : A Profile of the Study Region

This chapter gives an account of the study area covering the aspects of location and spatial extent, physical and socio-economic setting of the region and transport and communication aspects.
Chapter III: An Appraisal of the Resource Base in Andhra Pradesh

The industrial resources and their spatial distribution are covered in this chapter. Here the nature of resources such as human resources, mineral resources, agricultural production, forest, fisheries and animal husbandry and dairy aspects are covered to throw light on the resource potential of the region.

Chapter- IV: Industrial Growth and Development in Andhra Pradesh

A review of the various industrial promotional organisations in the State is given first. The growth and development of large and medium scale industries between 1970 and 1995 are discussed. The study covers district trends, category-wise trends with respect to number of units, capital investment and employment.

Chapter - V : Spatial Distribution of Industries in Andhra Pradesh

The spatial variation of industries both large and medium scale and small scale, by regions and districts is discussed in detail covering each category in terms of number of units, capital investment and employment.
Chapter - VI: Industrial Structure in Andhra Pradesh

Composition of industrial groups at state, regional and district level are discussed in detail. The composition of industrial groups is studied in each district in terms of number of units, capital investment and employment for both large and medium and small scale industries in the state.

Chapter - VII: A Study of Industrial Regions and Regional Disparities in Andhra Pradesh

Industrial regions are demarcated based on a composite locational co-efficient index calculated separately for large and medium and also for small scale industries. Through combinational study principal industrial categories of each region are also determined.

Chapter - VIII: Summary and Conclusion

Chapter-wise summary and conclusions of the study are given in the first part of the chapter. Suitable suggestions, for balanced industrial development and to minimise regional disparities, are given at the end of the chapter.