CHAPTER - I

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Industry refers mainly to the manufacturing activity. Industrialisation relates to the organisation of manufacturing activity for increasing production in business enterprises. Industrialisation is a process of economic development where an increasing proportion of local resources are mobilised to establish a technically up-to-date and diversified economic processing. It implies, not merely development of certain industries, but certain basic changes in the structure, technology and organisation of economic activity. The League of Nations described industrialisation as "meaningful utilisation of power, machine, latest techniques, organisational methods, divisibility of labour and developed monetary system of goods and commodities".¹

Further, industrialisation not only encompasses the engagement of economic activity but has its impact on social organisation. However, it can be described, more specifically, as a process in which changes of series of strategical production function takes place following from such phenomenon as mechanisation of an enterprise, the building of a new industry, the

¹ League of Nations, Industrialisation and Foreign Trade, Economic and Financial Transit Department, Geneva, 1945, p.10.
opening of a new market and the exploitation of a new territory. Thus, industrialisation in a way, involves the process of both the deepening and widening of capital.²

The degree of industrialisation is reflected by a particular behaviour of the manufacturing sector as a unit. The indices that indicate the degree of development are the share of the manufacturing sector in the total output and total employment. Industrialisation is indicated by changes in these ratios.

Pattern of industrialisation is closely associated with the development of an economy. The relative contribution of primary, secondary and tertiary sectors to the total output and employment and the temporal changes indicate the pattern and direction of development. When the share of the secondary sector improves at the expense of the primary sector and when the tertiary sector improves at the expense of the secondary sector, the economy is supposed to have undergone a sequential transition from the underdeveloped to the developed stage.

The degree of development, according to H.G. Hoffman, is identified in terms of the internal changes in the composition of the industrial output. He argues that in the process of industrialisation, the consumer goods industries 'always' develop

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2. Pêi-King Chang, Agriculture and Industrialisation, Cambridge (Massachusetts), 1948, pp. 65–75.
first only to be overtaken by the capital goods industries later. The index of the ratio of value added in the two sectors is taken to indicate the present state and changes in the ratio in favour of the capital goods industries.

Hoffman's contention that the path is deterministic for all 'free' economies ignores the influence of expanding public sector in these economies. In countries where planning follows a well-defined strategy, a leap over the intermediate stages will be deliberately planned for. Further, without specifying in detail what goods are to be produced in different sectors and what techniques are to be adopted, there is no guarantee that mere changes in the ratio represents true industrialisation.

REGIONAL DEVELOPMENT:

A region is a major division of a country and regional development means the economic development of all the regions, raising their per capita income and living standards and fully exploiting their natural and human resources. Regional development is advocated for redressing the inequalities between regions and for raising the living standards to a uniformly high level. "In any comprehensive plan of development, it is axiomatic that the special needs of less developed areas should receive due

attention. The pattern of development must be so devised as to lead to balanced regional development." Sound economic policies are more important to economic development than mere expenditure of money by the Government.

The territorial economic resources viz., power, agricultural and mineral resources which are necessary for industrial development are most unevenly distributed in most of the countries. Hence, location of industries is an important factor in the creation of a climate for speedy development and acceleration of economic growth. At the same time, it is also necessary to highlight the need for dispersal of industries on strategic grounds to meet the requirements of decentralised development on social and economic grounds.

The aim of regional development should be to secure maximum efficiency in the utilisation of available resources rather than the adjustment of rival claims of different areas to achieve their own aims and ambitions. Thus, Regional Development leads to the distribution of employment opportunities on an equitable basis and they are not let to confine only to a handful of states which are

creation gaps in the per capital income among different regions. Hope has become or is becoming a new factor in the economics of poor lands hoping for a rising standard of living.  

Regional planning may attain certain social objectives such as the levelling of inequalities in the per capita income, the avoidance of emigration of labour and upliftment of backward regions. The very idea behind regional planning is the arresting of growth of agglomerations which will create a few industrial centres or towns, which in their turn given rise to housing problem, insanitary climate etc. So, there is a persuasive case for "balanced growth" for diversification, but within carefully considered limits.

Regional development is ultimately the result of the location of economic activities in response to differential regional attractions. Shifts in the location pattern have direct repercussions on income, employment and welfare. Since spatial organisation is a function of activity and interaction patterns, regional development is simply an expression of these patterns.  

7. R. Balakrishna, Regional Planning in India - 1948. p.73.  
8. R. Balakrishna, Regional Planning in India - 1948. p.73.  
Regional development is often used in a relative context. Compare problem regions with the prosperous regions, or in the national context compare two regions on the basis of a variety of socio-economic indicators. But, unfortunately regional development has been used mainly with reference to the 'Problem' regions. However, the management of the regional development process invariably lies in the hands of a large number of agencies both public and private, operating at a variety of levels, with varying scopes of the concept and perhaps, with varying degrees of power.

1.1. NEED FOR INDUSTRIALISATION:

Industrialisation accelerates the rate of agriculture progress along several specific lines. By creating a larger and more favourable market for agricultural products industrialisation tends to break up the relatively stagnant traditional type of agriculture and stimulates the production of cash crops on a specialised and efficient basis, and encourages the development of processing industries. It also makes available to the agricultural worker a far wider range of consumer goods which in turn stimulates their demand and thus their productive effort.¹⁰

To quote Hirschman the desirability of industrialisation also lies in the fact that at all levels of production process, other than the final demand level, industrial investments have more forward and backward linkages with other industries than agriculture.\textsuperscript{11} Industrial development creates in a society a new intellectual environment, which being less bound by tradition, is more conducive to the rise of entrepreneurial class and through such a class expansion can come by capital formation, financial management and technological expansion. This benefits agricultural as well as other sector of the economy.

The process of development proceeds from an agricultural stage through an agro-industrial stage to an agricultural-commercial stage.\textsuperscript{12} Economic growth, therefore, entails the movement of resources from a low productivity sector-agriculture, to a high productivity sector-industry.\textsuperscript{13}

In the under-developed countries, the productivity in industry tends to be considerably greater than in traditional agricultural pursuits.\textsuperscript{14} Economic development through industrialisation is

\begin{itemize}
  \item \textsuperscript{12} F.List, National System of Political Economy, Translated by Stephen Colwel, Philadelphia, 1856.
\end{itemize}
sought, therefore, "not only as a means of strengthening the nations but also as a means of bringing about a shift in power within the under-developed nations." 15

Rapid Industrialisation is the most pressing need of the developing countries to achieve the basic objectives of their economic and social progress. It has been recognised that industrialisation is the surest means to the problems of raising the standard of living of the people. Some International Organisations and advanced countries have started taking interest in the industrialisation of the under-developed countries, by helping them in their efforts for industrialisation.

The basis for the difference between developed and developing countries is the extent of industrialisation. Industrialisation plays an indispensable role in developing countries to increase income of the people which leads to a higher standard of living. However, it is realised that without adequate natural resources, it is highly difficult for an economy to embark up on higher industrial projects. Further, plenty of resources available internally alone cannot speed up industrialisation but proper use of the available resources is necessary.

In most of the developing economies, the rate of industrial growth is low not because of lack of natural resources but only due to under-utilisation of the available resources. To overcome this, for instance, when internal capital is not available, external capital should be created for rapid industrialisation.

To achieve rapid industrialisation, sincere efforts are needed in developing countries to mechanise the manufacturing processes more and more, to get their people trained in modern technology and to promote research for finding improved techniques of production. Developing countries have to first develop necessary infrastructure before setting up industries. It is realised that in a developing economy like India where capital accumulation and technological know-how are relatively at a low level, there is a need for rapid industrialisation of the regions depending upon the availability of natural resources. A suitable combination of labour intensive and capital intensive techniques are to be incorporated in the process of industrialisation in order to raise the productivity of factors of production. This enables the transformation of traditional economy into an industrialised country.
1.2. OBJECTIVES AND RELEVANCE OF THE STUDY:

It is realised that industrialisation is the means of ensuring a sustained economic development of the backward countries. The gap in per capita income between the developed and underdeveloped countries is largely reflected in the disparities in the structure of their economies. Therefore, economic development is roughly a synonym for industrialisation as a means to reduce poverty. The process of industrialisation involves basic changes like the building up of new industry, the opening of new market and the exploitation of natural resources.

In a Planned economy, location of industries is an important factor in the creation of a climate for speedy development and acceleration of economic growth. In a vast country like India greater importance is to be assigned to the regional or decentralised development of the economy with its industries through economic and planning programme. It is realised by the planners of Indian development and greater emphasis has been placed on industrialisation, since the second five year plan, for the development of all regions in the country.

To diminish the regional disparities, the backward regions and planned a higher rate of growth than the developed areas. However, in contrast to any other region in Andhra Pradesh, Rayalaseema presents many problems of regional imbalances in development. There is inequitable growth of industrial areas or centres
with a large cluster of large scale industries and the absolute negligence of this part of the State. Many of the large scale industries, as a result of monopolistic opportunities enjoyed by them with unregulated freedom in establishing manufacturing enterprises, are concentrated in Hyderabad and Secunderabad. Thus, there is definitely an indication of disproportionate concentration of industries in a few places.

The imbalances in the location and development of industries in different regions underscore the need for a survey and investigation into the progress of industrialisation between regions. In this context, the present study is an effort to analyse the structure and growth of large and medium scale industries in Rayalaseema that serves as an index of the development of the region. This study sounds relevant and hopefully enables us to have an insight into the direction and pattern of industrialisation for regional development through the promotion and growth of small and large scale industries.

OBJECTIVES:

The important objectives of the study are:

1. to analyse the structure and growth of industries in Rayalaseema region.
2. to examine the pattern of industrial progress in Rayalaseema region,
3. to gauge the effect of industrialisation on the economic growth of Rayalaseema,
4. to identify the forces retarding greater pace of industrialisation in Rayalaseema region,
5. to suggest suitable measures to improve the performance of large and medium scale industries in Rayalaseema region, and
6. to find out the potential areas for the establishment of resource and demand based industries in Rayalaseema region.

In the light of the objectives mentioned above, the number and type of industrial units, the investment and employment levels of large and medium scale industries in Rayalaseema region, the following hypotheses have been formulated.

HYPOTHESES:

1. The industrial activity had its base in the availability of resources in the region.
2. The demand based industries are encouraged and supported by the state government.
3. Majority of the large scale industries suffer from industrial sickness.
4. The contribution of large and medium scale industries for the development of Rayalaseema region has been marginal.
The present work concentrates on the analysis of industrial progress by examining the performance of large and medium scale industries and their impact on the growth of Ravalaseema region.

1.3. A REVIEW OF LITERATURE:

A brief review of the findings of different studies on industrialisation at different levels are presented hereunder.

The study on "Indian Planning for industrialisation" by Jagdish N. Bhagwati and Padma Desai reviews the historical trend and growth during the two decades since independence and examines a wide range of economic issues influencing the overall industrial development such as external resources, foreign trade policy, etc. They maintain that "Indian Planning for Industrialisation suffered from excessive attention bestowed on targets along with a generally inefficient framework of economic policies."

"Industrial change in India" by George Rosen is a pioneering study of technological change in Indian industries during 1939-53. The author computes certain economic ratios for five industries namely paper, iron, sugar, cotton and textiles and attempts to find solutions for the conceptual and methodological problems. The average capital-output ratios in these industries


show a rising trend during the post-war period. Further, the marginal capital output co-efficients in the industries studied are roughly equal to the ratios found in the developed countries.

M.M. Mehta's study on the "Structure of Indian Industries" examines the main trends in the size, location, and integration of industrial units in the seven selected Indian Industries, viz., Cotton, Jute, Sugar, Iron and Coal, paper and Cement during the period 1905-1959. He observes that wider the dispersion of raw-material and markets the smaller is the size of the unit, and the financial, managerial and administration integration of industrial units has tended to counteract or at least mitigate some of the disadvantages arising from small size.

Y.K. Alag, in his study on the "Regional aspects of Indian Industrialisation" finds that industries in India have grown in a relatively self-contained technologically interlinked clusters. Making use of the industrial base technique, he isolated blocks of inter-related industries in each of the states. This exercise reveals that the regional clustering of industries is associated with agglomeration economics. Finally, the author suggests a framework for incorporating the regional aspect into industrial planning models.

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The study by K. Rama Krishna Sarma on "Industrial Development of Andhra Pradesh" and another study by Kulwinder Kaur titled "Structure of Industries in Indian Pattern, framework, disparities," cover comprehensively all aspects of industrial development of a region. The former study examines interregional and intra-regional disparities over a period of time, considers the growth and problems of the different sectors of the economy the large and small scale sectors and the public and corporate sectors—and analyses the structural changes that have taken place in these sectors. The study also evaluates the economic characteristics of different types and sizes of industries and trends in their localisation and evaluates the role of different state level promotional Agencies in the industrial development of Andhra Pradesh.

The study of Kulwinder Kaur is an analysis of the process of industrialisation in Haryana over the period 1966-78. Within the broad framework certain aspects of industrialisation such as process pattern and spatial structure of industries are selected for intensive exploration.

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The study on "Industrial Dispersal Policies" by M.D. Gedbole and another study on "Spatial Diversification of Industries - A study in Utter Pradesh" by T.S. Papola deal with specific issues relating to industrial development. Dr. M.R. Chaudhuri's works on "Indian Industries Development and Location's through and critical study of the dynamics of industrial development. It helps the planners to formulate plans and policies for reshaping and re-orienting the industrial life of a country. He examined various industrial activities in India and discussed the problems of metallurgical industries. He asserted that regional planning of industries can alone maximise profits by minimising the risks and investments.

Bhabatosh Datta, 21 examines the impact of the employment and output approach on the economic policy of under developed countries and analyses the cyclical, seasonal and structural problems of under employment vis-a-vis the prospects and difficulties of industrialisation. The problems of changing the occupational structure has been examined with reference to the prospects of changes in terms of trade, the need for agricultural improvement and increased food production and also the alternative policies available.

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Recent plans and statistical projections have been examined and an attempt has been made to define the range of realisable prospects.

The industrial development is treated by Gedam in his study as if it is a tested tool for Nation's development. The industrialisation has its impact and stake on economic development and elimination of poverty. He pointed out that industrialisation has a major role to play by generating funds required for defence, education, social services etc.

John Glasson's work on "An Introduction to Regional Planning" attempts to avoid narrow approach and provides sufficient depth into regional analysis and practice necessary for a meaningful understanding of the subject area. He critically discussed various regional theories and trends to explain an inter-regional approach and the differences between regions.

Some of the unpublished works are literate on regional studies of our country. For instance "Industrial development

of Vidharbha (1975) which resembles a "techno-economic survey" gives among other statistics (mostly in raw form) pertaining to the mineral, agricultural, forest and animal resources of Vidharbha region of Maharashtra State.24

Another study on Haryana industrialisation emphasises the fact that industrialisation and infrastructure tend to develop side by side and that despite the increase in the industrial sector's share in the states income, the dependence of the states economy on agriculture has not lessened. Further, the process of industrialisation in Haryana has produced glaring inter-regional imbalances.

The productivity trends in Indian industries for the period 1951-63 were examined by R.R. Singh. He found an increase in labour productivity measure as a ratio of value added to workers and a decline in capital productivity which is derived by dividing value added by productive capital (both are not corrected for price changes) while overall productivity measured as ratio of output to input did not show any rise during the reference period.25

24. Plasapura, P.Z. "Popular Prasashan, Bombay, 1975 (This is based on the authores thesis submitted for the Ph.D in Commerce of Nagpur University).

Total Factor Productivity Growth in Indian industries for the period from 1946 to 1966\textsuperscript{26} by taking into account the problem of differential coverage of CMI (1946–58) and ASI (1959–66) data was studied jointly by Raj Krishna and Mehta. They considered 27 CMI industries and the corresponding ASI industries at aggregate level and concluded that Total Factor productivity has declined over the period whereas labour productivity has gone up.

Venkataswamy's\textsuperscript{27} study relating to 28 industries at aggregate level for the period 1948–1967 documents a relatively higher technical change in new industries than in the old and well established industries. He has employed Cobb–Douglas production function in this study.

Central statistical organisation\textsuperscript{28} (CSO) throughout a study on Jute Industry in India for the period 1960–70, in an attempt to examine the trends relating to partial and total factor productivity indices like profitability, rate of return on capital etc. Total factor productivity is estimated by using Kendrick's Index. According to the study Total Factor productivity has increased considerably along with an increase in labour and capital productivity during the reference period.

\textsuperscript{26} Raj Krishna and Mehta ”Productivity Trends in large scale industries”, Economic and Political weekly, October, 1968.

\textsuperscript{27} Venkata Swamy, T.S. ”Production function and Technical change in Indian manufacturing industries”, India journal of Economics, April 1974.

\textsuperscript{28} C.S.O ”Trends in Indian jute Industry 1960–76 Govt.of India, New Delhi, 1981
The performance of Cement industry was examined by T.L*N.Swamy by estimating productivity trends, profitability cost structures etc., during the period 1975-85 at all India level. He has employed Kendrick's method for measuring total factor productivity and found the increasing trend in labour productivity measured as a ratio of gross value added to man hours and a declining trend in capital and total factor productivity during the study period. The productivity trend in ten industries of Andhra Pradesh for the period 1980-89 was examined by V.L.Rao. His study observes that total factor productivity changed at an average of 1.42 percent per annum during the reference period in concerned industries. Capital productivity has also grown at negative rate during the same period.

The industrial development of Andhra Pradesh during 1975-85 was reviewed and clustering of districts in Andhra Pradesh was attempted by K.Nageswara Rao. It is revealed from his study that agro-processing, pulp, paper and cement industrial units are concentrated in Andhra region, while chemical, engineering, mineral and ceramic and electrical industries are located in Telangana region and Rayalaseema provides wider scope for textile, mineral and ceramic industries.

1.4. METHODOLOGY AND PERIOD OF STUDY:

A census of large and medium scale industries in all the four districts of Rayalaseema region is prepared and these industries are classified into:

a. Resource based industries started near the location of resources and

b. Demand based industries - located in areas of high demand

At random, four districts each from these categories covering all most all the districts in Rayalaseema region have been selected for detailed study. Further, to study the heterogeneity of the industries, units producing different products have been selected from the group of resource based industries. Since majority of the demand based industries in Rayalaseema are textile units, only these units are included in the group of demand based industries.

First the Historical Background and the problems of the large and medium scale industries in promoting regional development is presented to get an understanding of the special problems of the Rayalaseema region. Then industrialisation is studied by making a temporal analysis pertaining to financial and productive operation of the selected large and medium scale industries in the Rayalaseema region during the last two decades.
Although some of the industries were started in 1950s present study is confined to the time period from 1971-72 to 1990-91 covering the period from the Fourth Five Year Plan to Seventh Five Year Plan of India.

DATA BASE:

The basic source of data and information is the Annual Accounts and Reports maintained by the selected resource based and demand based industries. The reports and records in the office of the Commissioner of industries, Government of Andhra Pradesh, Hyderabad are referred to collect data for the industries in the state. The office files, notes and registers of the General Manager, District industries Centre, Anantapur, Kurnool, Cuddapah and Chittoor are made use of to acquire necessary data on these industries. The plan documents of Government of India and Government of Andhra Pradesh are referred to present a brief review of the industrial progress during the Five Year Plans of India and Andhra Pradesh.

All collected and collated data are posted in suitable tables, diagrams and graphs. Statistical tools such as compound growth rate, Trend, multiple regression are employed to organise the data to draw meaningful inferences. Four variable regression analysis is attempted to develop the production function of each of the selected industry.

\[ Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 \]
Where,

\[ \begin{align*}
Y &= \text{Production} \\
X_1 &= \text{Raw material} \\
X_2 &= \text{Fixed assets} \\
X_3 &= \text{Wages}
\end{align*} \]

In addition to this a Lorenz curve technique exhibiting the inequalities in the production levels of resource based and demand based industries during 1971-91 is attempted:

Herifendal indices are computed to examine the degree of concentration of employment in these categories of industries in Rayalaseema.

Analysis of variance test is used to compare the experiences of resource based and demand based industries during 1971-91 on the basis of 12 selected indicators. Further, factor analysis introduced by B. Fruchter is employed to group the selected resource based and demand based industries into clusters on the basis of selected indicators.

CHAPTER SCHEME:

The present work is organised into Seven Chapters followed by a select bibliography.
The first chapter introduces the theme under taken, discusses the main problem selected and highlights the importance of large and medium scale industries in the context of regional development. It also presents the objectives of the study hypotheses to be verified and the research design. Further, it presents a brief review of literature on the topic and outlines the methodology adopted to treat the data to draw inferences.

The second chapter extending over three main divisions summarises the industrial progress during the Five Year Plan period in India and Andhra Pradesh. Further, it presents the details relating to the large and medium scale industries in Andhra Pradesh.

The third chapter deals with the historical background, peculiar physiological features of Rayalaseema region. It presents in detail the clear picture of the structure pattern and growth of industries in Rayalaseema region. It also presents a synoptic view of the selected resource based and demand based industries in the region.

Chapter four investigates into the functioning and performance of Resource Based industries in Rayalaseema. This study is organised into five subdivisions dealing with a) Sources of funds, b) Structure of the industry, c) Analysis of finances d) Production and employment and e) Average production, Receipts and expenditure aspects of the resource based industries.
The fifth chapter is devoted to assess the functioning and performance of demand based industries in Rayalaseema on similar counts.

The next chapter deals with a comparative study of Resource based industries and Demand based industries in Rayalaseema. This facilitates the understanding of the functioning of these industries and presents the similarities and dissimilarities between them.

The last chapter presents the summary of the findings of the study and a set of suggestions to improve the functioning of resource based and demand based industries in Rayalaseema.