CHAPTER I
APPRAISAL OF THE PROBLEM

1.1 Introduction

Generally the word ‘Industry’ can be taken to mean any branch of productive work, whether it belongs to the primary, secondary or tertiary activities. In this sense that word ‘Industry’ is applied in most of the population censuses. On the basis of this meaning ‘Industry’ can be classified into three major groups – Primary, Secondary and Tertiary which have many sub-divisions amongst them again.

The term ‘Industry’ is often used by itself to denote manufacturing. The term manufacturing includes those activities by which man changes the form or nature of raw materials converting them into more useful products. (Vanrayan and Bengtoson, 1971) These transforming operations are conducted in factories to which are brought raw materials from various source regions and from which go finished products to diverse market regions (Miller, 1962).

An Industry is regarded as a homogeneous group of enterprises of companies, (Alderfer and Michi, 1957). Homogeneity being measurable in several ways as indicated below -

A company, business firm concern is an association of persons united for common purposes. The procession of raw materials to exchange its value is another sense in which we use the term ‘Industry’. Therefore, on the basis of this meaning industry can be classified into four groups i.e. extracting, processing, assembling and servicing. Each group requires specific inputs (raw material, labour, capital and water) from specific sources for its operation and provides specific outputs for purchase in specific market and areas (Hamilton, 1967).
The term ‘Industry’ refers mainly to manufacturing activity. Therefore, agriculture, mining and most of services are excluded from the industry. And it is in this sense that the term ‘Industry’ will be mainly used in the present study.

1.2  Industrialization in Modern Society

Industrialization has a major role to play in the economic development of the underdeveloped counties or regions. Industrialization is not an end in itself of course, but a means raise living standards, the per capita income of the people of the country or region. Therefore, Government and all others involved in the complain to solve problems of under developed countries through industrial growth to consider general Industrialization aims and problems and every specific project in terms of value to the economy.

Industrialization raises the economic status of a society. Therefore, in any society or region or country industrialization can be a very effective tool to achieve economic development.

Actual process of Industrialization brings profound changes in the pattern of living which calls for considerable social adjustment and adoption. Besides, industrialization directly influences, commerce and trade, communication, human resources, urbanization, service centre, social and cultural environment, natural resources, availability of technical assistant, indigenous research and development efforts of a society.

Industrialization means the growth of manufacturing industry. It is a basic process for achieving rapid development through harnessing a regions natural resources and rendering them into production wealth. It is thus a part economic development which involves raising standard of
living through a steady increase in the efficiency of factors of production (Chaudhari, 1970).

Industrialization has been defined as a process in which changes of a series of strategically production functions are taking place. It involves those basis changes that accompany the mechanization of an enterprise, the building of a new industry, the opening of a market of a market and the exploitation of a new territory.

Industrialization is also treated as a process in which the economic gains of industrial process, mainly in the nature of increasing returns are continuously created and wholly or partially realized (Kuchal, 1969).

Industrialization has been treated by historians as originally a European phenomenon, sometimes more narrowly as a British society’s phenomenon which made its decisive appearance in the second half of the eightieth century that simply caught elsewhere (Hughes, 1970). While in the Indian society industrialization began in the later half of the nineteenth century.

The most important role of industrialization will be that of absorbing the human potential to reach satisfactory level of production. However, it is also necessary that there should not be reduction but an increase of agricultural production through mechanization. It is also necessary to remember that problem of poverty and unemployment, national defense and economic regeneration in general can not be solved without industrialization.

1.3 Comparison of the Sector of Occupation

Occupation refers to a person’s trade or profession or the type of work in which one is engaged. Such occupation structure of any society or nation is related to a number of factors. The basic function is laid by nature and the variety of physical resources – good land for agriculture,
tree for forestry, coast for strata for mining etc. while commercialization in the use or these primary resources diversifies the occupation structure and industrialization bring in further diversification by creating a variety of additional jobs (Chandan and Sidhu, 1980).

As there are innumerable occupations and their type and number highly vary from nation to nation occupations may broadly classify into three sectors – namely primary, secondary and tertiary based on the nature of economic activities. In the primary sector of occupation the chief factor of production is land and production involves the direct extraction of some useful substance from the physical environment. Secondary sector of occupation involves the process of converting raw material into final products which is of greater value than original. While tertiary sector of occupation involves both production and exchange and both (secondary and tertiary) sector of occupation are characteristically lesser user of land as compare to primary sector of occupation. A major geographic difference between primary, secondary and tertiary sectors of occupation lie in their different distributional pattern.

1.4 Industrial Geography

Industrial Geography is one of the youngest and well established branches of Economic Geography. After the First World War and Second World War rapid industrialization has started in most of the countries of the world. The traditional and village industries slowly started to disappear and several new types of industries came into existence. Industrial Geography is essentially associated with productive efforts of man for manufacturing the things to satisfy this need. Therefore simply defined industrial geography is the study of the distribution of manufacturing industry.
As a result most of the socialist, economists, regional planners and geographers are attracted towards the new study of industries with the view in the developments plans of the country. Economic geographers started to study the new discipline i.e. industries with related to geographical factors. (Alexander, 1967)

Economic geographer can also find out the geographical distribution of the favourable locational factors which go to develop the industries. Even the industrialist’s ultimate sources will depend upon his behavior in geographic environment (Prakash rao, 1942). However, the study of industries from geographical point of view will until 1950 were more concerned with theoretical matters. Studies in the fields of industrial geography by Indian geographers can be traced back to early forties of the twenty teeth century.

In broadest sense “Industrial Geography is concerned with the interpretation of present distribution patterns global, continental, national or regional. The geographic approach using the map as the chief tool of analysis is eminently suited to this type of study.”

1.5 Industrial Geographic Approach

Traditionally there are two approaches in the industrial geography for studying the distribution of manufacturing industry by industry and by region. First approach is to account for difference in the development of particular industries as between nations, while the second and more useful approach is to analyze the distribution of industries within a area for example a nation, state or region. i.e. analytical, synthetic.

Due to the first approach (analytical) industrial geography becomes relatively precise study of the distribution of factors that collectively make up in industry. By considering the distribution of many plants in several industrial areas of nations, it becomes possible to formulate
general principle of location. Such geographical generalization about manufacturing industry may prove meaningful. However, there are several types of industries and each industry has its own locational characteristics. Therefore most generalization that can be made about the economic geography of one industry is irrelevant for the other industry and vice-versa. Therefore, synthetic approach of industrial geography becomes sometimes meaningful and more useful (Lahane, 2005).

Though both approaches taking tahsils one by one and consider different industries are useful for studying the industrial development of Ratnagiri district the later approach is more useful and meaningful for the underdeveloped tahsils of Ratnagiri district.

1.6 Choice of the Region and Topic

The choice of the area and the topic for investigation is considered due to the following reasons.

The study of the various geographic phenomena related to various characteristics of industry of Ratnagiri district is necessary for understanding the various problems. The study of this industrial development has a great significance because of its relatedness not only with the structure of society but also with social and economic development. Therefore, this study makes an attempt to analyze the growth and structure of the industries in Ratnagiri district.

Since the formation; Maharashtra state has been recognized as the most developed state and most industrialized state in India. But the industrial growth and economic development are not uniform in all parts of the state. There is great regional imbalance in the state and Ratnagiri district is under progress for industrial development.

Industries are not evenly distributed, the great disparity is found in industrial distribution and concentration. Hence the researcher has
undertaken the present study of industry to bring out the salient features of the industries through geographic analysis. The industry is at the centre of the development process. The solutions to the industrial problem can be found by understanding the growth and structure of industries of Ratnagiri district.

Due to all above considerations researcher has chosen Ratnagiri district for the study.

1.7 **Aims and Objectives of the study**

The specific objectives of the present study are as follows -

1. To study the availability of geographical and socio-economic factors on which the development and growth of industries depend.
2. To study general landuse and agricultural landuse from the view point of agro based units.
3. To Study the population characteristics and its effect on agriculture and industries.
4. To study industrial development in India, Maharashtra and Ratnagiri district.
5. To evaluate the efforts for industrial development of Ratnagiri district.
6. To study the distribution of industries in the study region.
7. To study performance of large and medium scale industries in the study region.
8. To map, describe and interpreted the distribution of small scale industries of Ratnagiri district.
9. To study the cottage and village industries of the study region.
10. To study the resource inventory in the Ratnagiri District.
11. To find out the problems, conclusions and suggest suitable remedies to solve them.
1.8 Data base and Methodology

The information and statistics related to growth of large, small scale, khadi and village industries in Ratnagiri district is collected from the secondary sources. This study has been done individually. Hope the readers will take into consideration its obvious limitations. It was not possible to collect required data from every large, medium, small scale units and khadi and village industries.

The broad picture of the study of patterns of land utilizations made with the help of secondary data obtained from Socio-Economic Review and District statistical Abstract, District Census Handbook, District Gazetteer. Data regarding for industries obtained from District Industrial Centre, Village and Cottage Industrial Office. The data collected through secondary sources has been processed and represented by statistical and cartographic techniques.

As the study purpose to be geographical in spirit the chorographic and chorologic methodologies were adopted. These involve the distribution and interpretation of the regional patterns revealed through choropleth method and divided circle.

For studying the change in land use pattern five major land-use categories are considered i.e. area under forest, area not available for cultivation, other uncultivable land, fallow land and net sown area. Percentage of area under every category of land to total geographical area is computed. For studying the industrial crops variation of area has been worked for entire region.

Data regarding the number of large, medium and small scale industries, capital investment, production capacity, labour force are considered for measurement of industrial development. Indices of industrial units are computed by selecting 1991-92 as a base year. Indices
of large scale, small scale industries regarding number of units, production, labour force and production capacity etc. has been calculated for the entire study region.

In the present study an attempt is made to delineate the industrial combination regions by applying minimum standard deviation method as introduced by Weaver (1954). The technique devised by Weaver may be expressed as follows

\[ d = \frac{\sum d^2}{n} \]

where,

\[ d = \text{is the difference between the actual industry percentage and the approximate percentage in a theoretical curve.} \]
\[ n = \text{the number of industries in the combination.} \]

In order to determine the tahsils wise concentration of small scale industries Bhatia’s method (1964) is used with modification for the calculation of the location quotient. The following formula is used for the concentration of selected small scale units.

\[
\text{Index for Determining Concentration of Small Scale Industries} = \frac{\text{Percentage of Industry 'a' in the Component Areal Unit}}{\text{Percentage of all SSI Units in the Component Areal Unit}} \div \frac{\text{Percentage of Industry 'a' in the Entire Study region}}{\text{Percentage of all SSI Units in the Entire Study region}}
\]

To investigate the spatial pattern of industrial diversification of the study region Bhatia’s method is used.

\[
\text{Index of SSI Units} = \frac{\text{Percentage of 'x' Small Scale Units}}{\text{Number of 'x' Small Scale Industrial Units}}
\]
Where

‘x’ small scale industrial units are those industries that individually occupy 10% or more of the individual percentage in regional units.

The number of small scale industries per 100 hectares and per 1000 population has been calculated for the study of industrial growth in the study region.

Data of Khadi and village industries also processed systematically for interpretation. Percentage and volume of change is worked out for the cottage and village industries.

The composite index is calculated to determine industrial development in the study region.

1.9 Review of Literature

For the present investigation, the literature from various disciplines has been referred. The role of geographer is very vital in analyzing and synthesizing the comprehensive picture of an issue. Studies of industrial geography by Indian geographers since 1965 systematically analyzed the spatial distribution of large, medium, small, khadi and village industries and geographical factors operating in their location features of manufacturing industrial landscape.


Prakash Rao (1941) presented an appraisal of the role of geographical factors in the location of the ship-building industry. He listed the major problems, especially the deficiency of power, which hampered its growth in India.

Rangappa K. (1957) examined the structure of small scale and cottage industries in Mysore state, and observed that the state offered vast scope for their development. He criticized the lack of comprehensive surveys which were so necessary for an identification of the major problems of these industries and for suggesting measures for their future growth.

Tripathi (1968) studied the dominant features of the industrial landscape of the Central Ganga Valley in Uttar Pradesh which he described as the Kanpur region and included in it the districts of Kanpur, Farrukhabad, Etawah, Unnao, Jalaun, Hamirpur and parts of Banda and Fatehpur. He stressed the fact that rational planning for industrial location was vital for balanced economic development.

Verma (1968) examined the locational factors of primary, secondary and tertiary industries of Madhya Pradesh.

Pathak (1968) studied the dynamics of industrial growth in the Damodar Valley and Ram (1968) analyzed the role of regional factors in the industrialization of the south-eastern part of the Chhota Nagpur plateau.
Kannan Chatterjee (1979) Studies ‘Hurdles of the Cotton Textile Industry in West Bengal’. Author has collected data about process of cotton, machine and labour ratios in cotton textile mills in West Bengal. Author observed the fundamental problems i.e. lack of adequate finance, power shortage and frequent interruption of power supply, excessive labour, lack of modernization and regionalization, higher cost of raw materials due to extra freight on cotton and staple fiber.

Shukla S.K. (1980) – Studied ‘Sugar Industry in Madhya Bharat Plateau – A Case Study’. He studied sugar industries with help of primary data. He applied percentage technique and choropleth method for the study. He examines sugar industrial problems i.e. inadequate supply, transportation, quality of sugarcane etc.

Sadhakhan S.K. and Bhattacharyya R. (1981) analyzed ‘Growth of Manufacturing in India: 1951-69’. The main objective of the paper was to examine the relationship between the growth of the system components over time and space. They found that most of the additional energy produced after 1951 had been consumed in sectors other than manufacturing. They observed that most of the additional production of minerals after 1951 had not generally been used for industrial processing within India.

Tawade M.D. and Gatade D.G. (1983) – Examined ‘Industrial Potential of Konkan Region of Maharashtra’. In this study all the resources of the region have been considered to assess their industrial development. Due to typical physiography Konkan region has a potential for the development of hydro-electric power. Authors have pointed out that Konkan region has great potentials for industrial development due to availability of various resources i.e. agriculture, forest, marine and minerals.
Sakriya D. (1994) – Analyzed ‘Small Industry and Globalization’. Author concludes that small entrepreneurs have a big role to lay in the revolution of our national economic problems and towards integrating the country with the world economy. Author found that Indian entrepreneurs have proved their metal worldwide. He concludes that in the highly demanding entrepreneurs capacity of an enormous capacity for hard work.

Xaviour V.M. (1995) – He studied ‘performance and problems of the Entrepreneurs of small scale Industries in Kerais’. He has considered promotion of the enterprise awareness of incentives, reasons of not availing of the incentives, method of supervision, marketing policy etc.

Gaikwad S.B. (2003) – analyzed ‘Geographical Perspectives on Growth of Sugar Industry in Maharashtra’. Author observed that locational pattern of sugar factories is uneven throughout the region. He found that the nearest neighbour analysis of locational pattern of sugar industry at district level.


The above mentioned review of literature clearly showed us nobody has done research work on industrial area of Ratnagiri District. Therefore, it may be humbly mentioned that this is the first attempt to
make a comprehensive study of the Ratnagiri District in the field of Industrial Geography.

1.10 Chapter Scheme

The study is divided into nine chapters.

The first chapter throws light on introduction, industrialization in modern society, Comparison of the sector of occupation, industrial geography, industrial geographic approach, choice of the region & topic, aims and objectives, data base and methodology, review of literature and chapter scheme.

Second chapter throws light on location, boundaries and area, physiography, drainage, climate, soils, geology and minerals, natural vegetation general landuse, agricultural landuse, irrigation, livestock, transport and communication and population characteristics is considered.

Third chapter deals with industrial policy, role of industries in national economy, industrial development through five year plans in India, review of industrial growth under planning, large scale industries in India, small scale industries in India, village and cottage industries in India and industrial development in Maharashtra and Ratnagiri District.

In the fourth chapter efforts for industrial development are discussed in the study region. Individual efforts, individual entrepreneurs, industrial estates, co-operative societies, government plans and implementation and scope of small scale industries are discussed in Ratnagiri district.

Fifth chapter throws light on distribution of industries and industrial areas, growth of large and medium scale industries, index number of units, investment, production capacity and labour force, tahsils-wise and category-wise distribution of large and medium scale industries and present position of large and medium scale industries.
Sixth chapter deals with review of small scale industries, growth, index number, category-wise and tahsilwise distribution, industrial combination, number of small scale industries per hundred hectares and per thousand population, industrial concentration and industrial diversification of small scale industries.

Seventh chapter throws light on definition and importance of village and cottage industries, village and cottage industries in Ratnagiri district, tahsil-wise distribution in Ratnagiri District like oil ghanis, food processing, pottery, leather, carpentry and blacksmith units, cane and bamboo, fruit processing and other units is considered. In this chapter lastly calculated levels of industrial development.

Chapter eighth throws light on resource inventory like landuse, cropping pattern, forest, livestock, mineral, fisheries, water and population in the study region.

Chapter ninth covers industrial problems of Ratnagiri district, conclusions and major remedies to solve the problems.
References


