

CHAPTER - I
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I N T R O D U C T I O N



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1.1 INTRODUCTION :

Industry is the second important source of income after agriculture in India. Since plan period, among the various achievements, the country had witnessed industrial development by setting up the diversified structure. Moreover, the special efforts are being made for reshaping and reorienting the old structure of industry. As such the industrial scenerio of the country is changing rapidly, in which agrobased industries are predominant. Among agrobased industries, sugar industry ranks second in importance after textile industry. Although, India ranks tenth among the most industrialised nations in the world, it ranks first in the sugar production. The production has been rising over a period of time and during the year 1990-91 season, India produced 120.47 lakh tonnes of sugar which was the highest production of sugar recorded by any country in the world. India has thus emerged as the top producer of cane sugar in the world, leaving behind countries like Cuba, Brazil which were till now considered to be the top sugar producers.

Sugar is known to Indian since Vedic times. There are references of 'Sarkara' in 'Atherva Veda' when the only sweetening agent known to the rest of the world was honey. Foreign travellers to India have written about honey in the wonder plant the 'honey reed' their description of sugarcane.

In a developing economy like India, it is not possible to progress towards prosperity, if one depends on and encourages agriculture only. However, the agriculture helps to develop the allied industries to which we call as 'agro-industries'. Conceptually, the agro industries are the industries which are either the users of agricultural output or producers of agricultural inputs. The term agro industries is of recent origin though such industries have been in existence for quite a long time in our country. Rise and growth of agro industries will, contribute quantitatively to the economic development of India. In fact development of agro industries has played a crucial role in the economic progress and planning of Maharashtra State. Sugar industry being a agro based industry is an old industry in India. Today Indian sugar industry stands first in the world in production of canesugar. Sugar industries have strengthened the economy of states like Uttar Pradesh, Maharashtra, Karnataka. Specially, in Maharashtra sugar factories have helped to create more balanced and well spreadout industrial structure. They have comprehensively affected the development of both agriculture and industry. Especially, they have played pivotal role in changing rural life.

1.2 IMPORTANCE OF THE THEME SELECTED :

The Indian economy is basically an agrarian economy and the livelihood of around 70 percent of the population

depends on agriculture. Sugar industry occupies an important position on the industrial map of the State of Maharashtra. Among the Indian states Maharashtra tops in sugar production as well as recovery of sugar. Due to the perishable nature of sugarcane almost all sugar factories are established in rural areas. These factories play major role in the socio-economic development of rural areas in Maharashtra. Though the growth of various urban centres is helping to solve the problem of unemployment by providing employment in the growing industries and business, the importance of providing employment to the rural masses without much of their migration to the growing urban centres need no emphasis (Kharche, 1989). This is possible only by developing the various agro-based industries in the rural areas.

The sugar factories being the large size agro processing industry has got quite a good employment potentialities. A sugar factory of 1,250 tonnes crushing capacity per day creates an employment potentiality of around 300 to 350 permanent workers and equal number of seasonal workers. Beside this, for harvesting sugarcane, 5000 male and female workers are required to be engaged during the crushing season. Likewise around 100 tractors and 1000 bullock-carts are given employment during the crushing season by each sugar factory having 1250 tonnes capacity. The sugar industry in private sector has also provided the above employment potentialities in their areas.

The cooperative sugar factories in Maharashtra are playing the role of catalyst in the process of socio-economic development of the rural areas. The sugar factories have provided the opportunity to even the smallest cane growers to derive the benefits of the large scale industry. The co-operative sugar factories with their manifold advantages play a very crucial role in bringing out the socio-economic development of rural habitats. Various sugar factories have undertaken the activities in their area of operation for the social, educational and agricultural developments.

Integrated development of agriculture, social, cultural and educational can also take place resulting rural transformation. Thus sugar factories in Maharashtra are coming up as 'Growth points' in rural areas to uplift the rural masses. However, during the last decade or so, by one or the other cause, sugar industry is being faced by several problems, resulting in deviation from its target. And hence for the bright future of this industry it needs to be investigated thoroughly.

1.3 OBJECTIVES OF THE STUDY :

In view of above the present work proposes to study the following aspects -

- (1) To study the physio-socio-economic determinates as a basis for the sugarcane cultivation.

- (2) To study the changes in cropping pattern with special emphasis on sugarcane cultivation.
- (3) To study the origin and development of sugar industry.
- (4) To study the spatio-temporal growth of some aspects of sugar industry, and
- (5) To study the problems and prospects of sugar industry.

1.4 REVIEW OF LITERATURE :

For the present investigation the literature of different types has been referred. The role of geographer is very vital in synthesizing the findings of other disciplines and in presenting comprehensive picture of an issue which may then pass on to the planners for retouching. The geographical studies on sugar industry as such are relatively rare. However, mention is made of some work which have been undertaken in India and abroad.

The work of Higman (1968), Sandhu (1981), Bischoff (1975), Blume (1985), Siddiqui (1968), Jadhav (1984), Singh and Lal (1991) have revealed the importance of sugarcane cultivation and its processing in various region. Gaikwad (1988) studied working and growth of Vitthal Sahakari Sakhar Karkhana Ltd., Venunagar. Dakle (1990), Khodave (1990), Patare (1984), Shinde (1987), Jadhav (1986) have examined socio-economic study of seasonal workers in particular factory in Maharashtra. Tiwari (1969) pointed out some important

problems of sugar industry viz. shortage of cane, mismanagement, unhealthy competition among the mills etc. in Eastern Uttar Pradesh. He made a case to relocate sugar factories and suggested some measures to increase crushing capacity of sugar factories. For the smooth functioning of the proposed units he also suggested to check Khandsari and Gur making. Limaye (1970) and Gandhi (1945) also studied problems and prospects of sugar industry in India. Gowda (1985) examined geo-economic problems and prospects of sugar industry in Karnataka. Agashe (1983) has discussed the prospects of sugar industry. Loeffler (1963) studied Beet sugar production on the Colorado piedmont, and Traub (1987) studied regional differences in cane-sugar production in Thailand. An attempt has been made to investigate the impact of sugar factories on socio-economic and rural development by Jugale (1983) and Mrs. Shetri (1983). Whereas, studies focusing on policies and politics of sugar industry were undertaken by Naidu (1991), Rao et al. (1991), Ghothoskar (1982), Inamdar (1965), Kharkar (1975), Bhusari (1990) and Baviskar (1980) etc.

The research work dealing with some aspects of sugar industry in respective regions were carried out by scholars namely Hilage (1989), Gaikwad and Pawar (1992), Shukla (1980), Galloway (1968), Mohite (1974), Gundu Rao et al. (1979), Tiwari (1968, 1969), Tiwari (1961), Anekar (1970), Dayal (1968), Kulkarni (1971), and Deshmukh (1983) etc. Auty (1976) has analysed the size and survival of sugar factory in the Commonwealth Caribbean.

His analysis is based on a four stage model of geographical evolution linked to increasing threshold size and a micro-analytical framework for measuring economies of scale.

1.5 THE REGION :

Maharashtra, the author's home state; located in peninsular parts of India is taken as a study region for present investigation. The third largest state in area and population in the country, came into existence on 1st May 1960, as a consequence of bifurcation of the bilingual state of Bombay into two unilingual states of Gujarat and Maharashtra. The state has latitudinal extent of 15°45' N to 22°N and longitudinal extent of 72°45' E to 80°45' E, with an area of 306,345 sq.km and a population of 78,748,215. The density of population is 256 persons per sq.km. The administrative structure of the state consists of Bombay as state capital with six administrative divisions of Konkan, Pune, Nasik, Aurangabad, Amrawati, Nagpur comprising 30 districts (Fig.1.1).

This state is endowed with natural resources by way of fertile land, forest wealth, mineral and marine resources which provide a rich basis for industrial development. Physically, the state falls into three natural divisions. The narrow coastal lowlands of the Konkan, the Sahyadris and the Deccan plateau. There is a great deal of variation in the pattern of climate and soils also. The lateric soils dominate the western parts of the region; whereas, river bank's medium

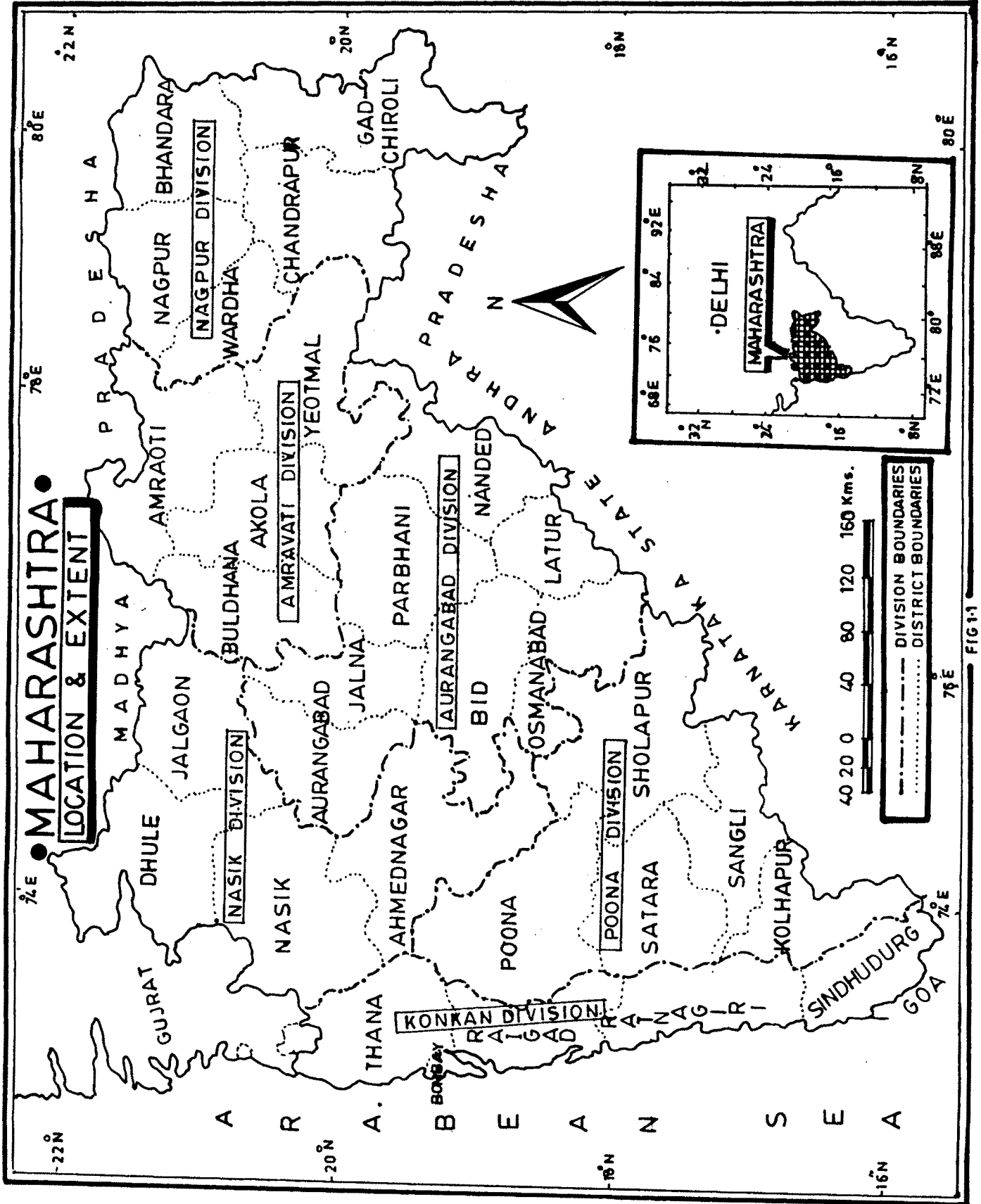


FIG 1-1

deep black soils have been used for sugarcane cultivation. Black cotton soils are largely confined to Vidarbha in the east. Average temperature of 27°C showing a summer maximum of about 35°C and winter minimum of upto 15°C is particularly favourable for sugarcane cultivation. The rainfall concentrated during the south-west monsoon decreases with the annual average of 3500 mm from the west to 1750 mm in the east. The rainshadow zone of the Western Ghats comprises the eastern part of the western district, central parts of Marathwada and the western part of Vidarbha with an average rainfall of 700 mm per annum.

1.6 DATA BASE :

The related information and statistics is collected from the secondary sources like Co-operative Sugar, New Delhi; working results of sugar factories in Maharashtra; Socio-economic review and district statistical abstract all districts in Maharashtra; statistical abstracts of Maharashtra; Epitome of Agriculture in Maharashtra etc.

Much of related information has been received from statistical department and library of Vasantdada Sugar Institute, Pune; and Statistician, Director of Sugar, Maharashtra State, Pune.

1.7 METHODOLOGY :

This work has been done single handily, I hope the readers will take into consideration its obvious limitations.

It was not possible to collect in each case the facts or the primary data regarding the industrial units. Therefore, secondary data was obtained from the government offices, departments, institutes, and libraries. The district is selected as an areal unit for the study. The period selected for investigation is post independence; however for detailed analysis 1960-61 is taken as a base year, the year in which the State of Maharashtra came into existence (1st May, 1960). The author has analysed the available data at various stages.

- (1) Relief and drainage pattern map is prepared with the help of million toposheet.
- (2) To represent the population density and intensity of irrigation, choropleth technique is adopted.
- (3) To highlight the relative importance of sugarcane in the cropping pattern the ranking of crops technique is used.
- (4) To represent the sugarcane concentration, the location quotient method is adopted.
- (5) To calculate the level of sugarcane productivity, Jasbir Singh's (1984) method of "Crop yield and concentration indices ranking co-efficient" is applied.
- (6) To represent the spatio-temporal variation in sugar production and sugarcane crushed etc. the choropleth technique is adopted.

- (7) Growth trends of some aspects of sugar industry is represented with the help of multiple line graph.
- (8) To depict the daily crushing capacity, proportionate circle method is adopted.
- (9) Average sugar recovery is represented with the help of horizontal bargraphs.

1.8 OUTLINE OF WORK :

The entire work is divided into five chapters. Chapter first deals with introduction, importance of the theme selected, objectives of study, review of literature, the region, data base, methodology and outline of present work etc. Chapter second analysis the physiographic and socio-economic determinants as basis of sugarcane cultivation and sugar industry. It is followed by sugarcane cultivation and cropping pattern, sugarcane concentration, levels of sugarcane productivity and sugarcane requirements and their availability. Chapter three entitled 'Origin and development of sugar industry' comprises historical perspectives of sugar industry of the world, India and Maharashtra respectively; role of cooperative sector in the development of sugar industry is also highlighted in brief. 'Spatio-temporal pattern of sugar industry' comprising number of factories, growth trends, sugar production, sugar recovery, crushing capacity,

distribution of sugar, sickness of sugar industry and export of sugar is covered in fourth chapter. Whereas, the last chapter deals with the summary, problems and prospects of sugar industry in the State of Maharashtra.

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