

## **CHAPTER – V**

# **SUMMARY AND CONCLUSION**

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Maharashtra consists of 35 districts and it is divided into six administrative divisions viz. Konkan, Pune, Nasik, Aurangabad, Amaravati, and Nagpur. The geographical area of the State is 3,07,713 sq. km. which is about one tenth of the area of the Indian union. The total population of the State according to 2001 census is 9,67,52,247 and is about 9.33 percent of country's total population.

Physiographically State is divided into four natural regions such as Konkan Coastal Lowland and Sahyadri, Tapi-Purna Valley, Maharashtra Plateau and Vidarbha region. There are several important rivers flowing in east-west and west-east directions. The climate of Maharashtra state is characterized by hot and dry summer and moderately cold winter. The soil of Maharashtra is greatly influenced by the geology and climate of various tracts. The total forest area in Maharashtra is 52,817 hundred hectares which is about 17.17 percent of land area.

Agriculture is the main stay of the people of the State. Maharashtra state has an area of 17,738 thousand hectares of land under cultivation. In Maharashtra, only 17.41 percent of the total cultivated land is under irrigation. The minerals of the State are mainly

concentrated in two zones namely eastern Vidarbha and south Konkan. Maharashtra is one of the industrially leading state of the country. It has 25,995 working factories which provide employment to 12,25,009 people. The State has relatively good network of transports which includes roads, railways, waterways and airways. In the term of distribution the south central part of the State is well connected with criss-cross pattern of roads. The total rural population of Maharashtra is 57.68 percent and 42.32 percent population is urban. Maharashtra is always a leading State in socio-economic development in India, Mumbai, Mumbai suburb, Pune, Satara, Sangli, Kolhapur, and Aurangabad have the high level of socio-economic development.

The main objective of the present study is to investigate the regional inequalities in the distribution of population in Maharashtra. The specific objectives are threefold, namely:

- 1) To study the density of population.
- 2) To investigate the concentration of population.
- 3) To analyse the correlation between population distribution and selected factors.

Geographers are more interested in the study of relation between population distribution and influencing factors. Geographer's goal as an analyst of population is the understanding of regional differences in the earth's covering by the people in terms of physical, socio-economic, demographic, political and historical factors.

The concept of population distribution and density are very useful tools for the analysis of the diversity of man's distribution in space. The density of population and their disparities are prime concerns to population geographers. The uneven distribution of population is a significant factor influencing various aspects of human life. It influences the future plans for development, political moves and rate of development. Density of population helps us in understanding the nature of distribution of population. It plays an important part in any scheme to health trade and socio-economic development. In short, it indicates the possibilities of development.

The overall population density of the study region is 314 persons per sq. km. There is no uniformity in the distribution of population in the State as it varies from district to district. Mumbai, Mumbai suburb and Thane district have an extremely high density of population. Pune, Nagpur and Kolhapur also record very high density due to industrialization, urbanization, transportation and agricultural prosperity. Nasik, Jalgaon, Raigarh and Sangli districts have high density of population. The districts like Sangli, Jalgaon, Nasik and Kolhapur have agricultural prosperity than others. These districts have better irrigation facilities and good transportation facilities. The agro-based industries plays a major role to boost the population density. In Raigarh district finishing, trade and transport and horticulture are responsible for high density of population.

Sindhudurg, Yavatmal, Chandrapur, Osmanabad, Washim and Wardha districts have low density of population. These districts bear a small portion of land under cultivation, with no irrigation and soil fertility is poor. Topography is rugged. They are also lagging behind in transportation facilities, industrialization and urbanization. The very low density is observed in Gadchiroli district because of inaccessible hilly forested uplands, unhealthy climate, lack of industrial development, inadequate transportation facilities and poor agricultural practices.

In the remaining districts, moderate density of population is observed. This is transitional zone between high and low density areas, where the agriculture is handicapped by undulating topography and paucity of water for irrigation.

The density of rural population in the State is 185 persons sq. km. Kolhapur, Raigarh, Sangli, Jalgaon, Latur, Nanded, Nasik, Bhandara, Thane and Pune districts have high density of rural population. Rich fertile soil, high to moderate rainfall, healthy climate, irrigation facilities, double cropping, variety of cash crops and number of agro-based industries are responsible for high density of rural population in these districts.

Gadchiroli, Chandrapur, Yavatmal and Wardha districts are observed low density of rural population. It is due to poor soils, forest cover, and undulating topography, lack of industrial development, low

rainfall, and poor irrigation facilities. The remaining 17 districts of Maharashtra are observed moderate density of rural population.

The density of urban population in the State is 6,586 persons per sq. km. Density of urban population is high in Mumbai, Mumbai suburb, Pune, Kolhapur, Solapur, Latur, Buldhana, Nagpur, and Wardha districts. Mumbai and Mumbai suburb districts are entirely urban. All these districts provide transport, educational, medical, industrial and administrative facilities which give better employment opportunities to the people. Whereas Raigarh, Sindhudurg, Thane, Ratnagiri, Satara, Sangli, Nasik, Ahmednagar, Aurangabad, Beed, Osmanabad, Nanded, Parbhani, Jalna, Bhandara, Chandrapur and Gadchiroli districts register low density of urban population. In the remaining districts of Maharashtra, moderate urban density is observed.

The regional disparities in the concentration of population are also observed at district level in the State. The district of Mumbai has highest concentration of population followed by Mumbai suburb, Thane, Pune, Kolhapur and Nagpur districts. Industrialization transportation, educational and medical facilities, trade and commerce are mainly responsible for this high concentration of population. The low concentration of population is observed in 21 districts. Unfavorable geographical conditions, small portion of land under cultivation, poor soil and transportation facilities are the causes for low concentration of

population. Nasik, Jalgaon, Akola, Bhandara, Aurangabad, Sangli and Ratnagiri have moderate concentration of population.

The districtwise variations are also observed in concentration of rural and urban population. Kolhapur, Thane, Raigarh, Sangli, Satara, Jalgaon, Latur, Nanded and Bhandara districts have high concentration of rural population due to rich fertile soil, high rainfall, irrigation facilities, double cropping and a variety of agro-based industries. Sindhudurg, Yavatmal, Osmanabad, Nagpur, Wardha, Chandrapur and Gadchiroli districts are observed low concentration of rural population. While moderate concentration of rural population is observed in 13 districts namely. Ratnagiri, Pune, Solapur, Nasik, Ahmednagar, Dhule, Aurangabad, Beed, Jalna, Amarawati, Buldhana, Parbhani and Akola. While Mumbai, Mumbai suburb, Pune, Kolhapur, Latur and Wardha districts are observed, a high concentration of urban population. The low concentration of urban population is observed in 23 districts of Maharashtra and moderate concentration of urban population is recorded only in 5 districts namely Dhule, Buldhana, Nagpur, Solapur and Yavatmal.

This disparity in population density and concentration within the State is governed by various physio-socio-economic factors. The correlation between density and concentration of population and factors influencing are analysed by Spearman's rank correlation, scatter diagram

and superimposed method. The effects of all these factors are significant as well as insignificant. They are summarized as below:

1. The correlation between industrialization and crude density of population is high degree positive ( $r = 0.77$ ).

The correlation between industrialization and density of urban population is low degree positive ( $r = 0.28$ ).

2. The correlation between road length per 100 sq. km. and crude density of population is low degree positive ( $r = 0.33$ ).

The correlation between road length per 100 sq. km. and density of rural population is high degree positive ( $r = 0.68$ ).

The correlation between road length per 100 sq. km. and density of urban population is low degree negative ( $r = - 0.27$ ).

3. The correlation between literacy and crude density of population is moderate degree positive ( $r = 0.51$ ).

The correlation between literacy and density of rural population is low degree negative ( $r = - 0.19$ ).

The correlation between literacy and density of urban population is low degree positive ( $r = 0.27$ ).

4. The correlation between rainfall and crude density of population is low degree positive ( $r = 0.28$ ).

The correlation between rainfall and density of rural population is very low degree positive ( $r = 0.06$ ).



5. The correlation between area under irrigation and crude density of population is very low degree positive ( $r = 0.02$ ).

The correlation between area under irrigation and density of rural population is low degree positive ( $r = 0.26$ ).

6. The correlation between net sown area and crude density of population is low degree negative ( $r = - 0.02$ ).

The correlation between net sown area and density of rural population is low degree positive ( $r = 0.16$ ).

7. The correlation between area under forest and crude density of population is low degree positive ( $r = 0.16$ ).

The correlation between area under forest and density of rural population is low degree positive ( $r = 0.12$ ).

8. The correlation between percentage of urban population and crude density of population is high degree positive ( $r = 0.65$ ).

9. The correlation between levels of socio-economic development and crude density of population is moderate degree positive ( $r = 0.43$ )

To conclude, like any other region in India, Maharashtra too shows an uneven pattern of population distribution. The western part of the study region records higher density due to industrialization, urbanization, fertile land, availability of water, development of agriculture, agro based industries and literacy, while eastern and central part of the study region

records lower density and concentration of population. The density and concentration of population in the State are greatly influenced by physical and socio-economic factors. All these factors are usually interrelated and together they affect the population distribution.