Chapter -I

INTRODUCTION

1.1 Introduction
1.2 Selection of the Topic and Region
1.3 Objectives of the Study
1.4 The Sources of Data
1.5 Methodology
1.6 Review of Literature
1.7 Organization of the Work
1.1 Introduction:

Population Geography and settlement geography are the two branches of Human Geography. These, both branches has recently been developed as separate disciplines of study and research, moreover, the scope of these branches is all pervading. They are concerned primarily with the spatial analysis of population and settlement. These two branches are related to the other subjects like sociology, economics, demography and other concerning disciplines. Due to the growing awareness among geographers of the fact that geography is one of the social sciences, they are taking increasing interest in the study of problems concerned to population and settlement. Population and settlement are studied separately by geographers and researchers. Nonetheless, here, a combine study of population and settlement is made to understand the spatial distribution.

The main focus of the study is human population in population geography. Trewartha confined the scope of population geography to the population in the past, distribution of population, density, migration, growth, qualities of population and their regional patterns of distribution.

According to Melez, population geography is the study of population distribution and productive relationships existing within various population groups, the settlement network and its fitness, usefulness and effectiveness for productive goals of society. The study of population geography is identified with the analysis of territorial groupings of settled places with emphasis upon their economic functionality. This is so because...
the pattern of distribution of population is basically represented by a network of settlement.

Population geography is a systematic branch of pure geography. It lays emphasis upon regional differentiation of areas in terms of their population. Population geography is concerned with the spatial and temporal analysis of population attributes. Madame Beaujeu-Garnier, in her book "Geography of Population" points out that population geography is concerned with describing the demographic factors in their present environmental context, studying also the causes, their original characteristics and possible consequences (Garnier, 1966).

The study of problem related to population acquires a special importance in an economically backward country like India. Similar studies have been carried out at international and national level. Since population phenomena vary at regional level also to understand the problems related to population precisely. It is necessary to undertake study of problems related to population at the regional level. Therefore, Latur district has been selected to study various population trends.

The settlement geography has assumed a tremendous significance to know the rural urban interactions. The technological innovations led to the development of industrialization of certain areas and hense, growth of urban centres is rapid and in the vast scale in the history of human civilization. The accessibility of adequate amount of water plays an important role in the shaping, origin, consolidation and perpetuation of the civilization. Moreover, the impact of
water on the expansion of settlement has always been a subject of history.

The study of settlement is a recent most sprout from the vulnerable trunk of human geography. Geographic thoughts have spread and spanned around the different settlements over the globe. Early geographers like Thucydides, Ploybius and Strobe were not mistaken in observing ancient cities as the symbol and explicit evidence of a superior civilization. They have also pointed out the contrasts presented by the people living in the towns and villages. The systematic development of settlement as a scientific discipline started after the First World War. (Shio Muni Yadav, 1997).

Man and his interruptions in the environment and his close contact with environmental features brought changes in his physical landscape which are further identified as cultural landscape and man's present relation to earth.

Settlement is a word derived from the word 'settle' which means 'to establish' or 'to become established in more or less permanent abode or way of life. It further contains the temporary stay at a place. Settlement geography is the study of the cultural landscape. (Jordan T.G. 1966). It is a science which studies the features distributed over space with differentiation in relation to man. The minutest detail of the distribution of population manifests itself in form of grouping of houses scattered at place and agglomerated at over. (Mandal R.B.1979). The greek word 'Ekistics' means the science of settlements, which is used by the architect of Islamabad, Pakistan.
Settlement is an establishment way of life, an abode, a shelter or dwelling where man retires from his days work to sojourn and sleep. This place is fixed and a definite location and identity. The term refers to 'the characteristics grouping of population into occupational unities together with the facilities in the form of houses and streets which serve the inhabitants'. Houses and streets are the chief elements of the study in settlement geography which determine the external and internal form of the habitation. The functions determines forms - external form of these habitation present architectural styles of the time, culture and region. Further it indicates the qualitative and quantitative changes in the settlement.

Settlement represents an organized colony of human beings, including the buildings in which they live, work or store over the tracks or streets. Habitation totally depends upon the surrounding conditions. Settlement geography is not only related with buildings grouped around the permanent farm dwelling, but also with temporary camp of hunter, hurler, or with settlement clusters or agglomerations, running the scale from hamlet to village, town and city.

The study of rural and urban settlements are the two branches of settlement geography. It also studies the problems and procedures of their analysis distinct from each other. Urban geography of settlement attracted more attention of specialist while systematic and scientific analysis of rural settlement is still in initial stages.

Rural and urban settlements are also the concern of economists, historians and sociologists but their approaches are different. Geographers treat the problem as man made
habitat on the surface of the earth in relation to environment
and an examination and analysis is made of the settlement
features, like morphology, functional zones, building materials,
and their architectural style. Further more, these features
relates the study with historical sequence and on functional
relationship. Variation is seen in size, function, spatial
distribution, layout and internal structure of settlement, in
terms of physical conditions, density of population and
character of human culture. The important aspect of
settlement geography is the changes that occurred in terms of
time and shift of place due to the social and economic
structure of the society.

Modern innovations in technology, communication and
transport which given rise to different set of occupance units
with varied morphological structure, consequently older
settlements are influenced by new settlements.

Social, political and economical behaviour of the society
influence the functional settlement of geography particularly
on the location, form and size of settlements. Moreover, each
community has its own distinctive religious edifices like
temples, mosques, churches etc. which has influences over
settlements.

Generally, Geographers consider settlement as man made
habitat on the surface of earth or landscape. The study of rural
and urban settlements has tremendous significance
predominently in countries like India.

Therefore, I have selected population and settlement of
Latur district for the present study. It contains growth,
density, birth and death rate, sex-ratio, pattern of literacy etc.
of population and origin, evolution, growth, distribution, size and spacing, forms, house types and service centers of rural and urban settlements.

1.2 Selection of the topic and region

The topic entitled "Geographical analysis of population and settlements in Latur district" has been selected for the present study. The region which contains ten tahasils like Latur, Ahmedpur, Udgir, Nilanga, Ausa, Chakur, Renapur, Deoni, Jalkot and Shirur-Anantpal. The research fellow is encouraged by the topic and the region.

1) I was born and brought up at Shirol (Janapur) district Latur and had an opportunity of travelling in the study region.

2) The region Latur is selected for my study where immense prospects of development exists.

3) The unequal distribution of natural and human resources in view to study the significant aspects of the study region, the researcher has selected the topic.

4) The area under study has a long cultural and historical past. Moreover, the region is a socio-economically backward in comparison to western part of Maharashtra.

5) I have been witnessed to the changes that have occurred during the last twenty years and hence, an insight have developed into the changes.

In the present study an attempt has been made to analyse the population trends and settlement distribution and their influence on the socio-economic conditions of the study region.
1.3 **Objectives of the study**

The present study aims to deal and analyse various aspects of population trends and settlement distribution in Latur district with the following objectives.

1) To study the geographical and socio-economic setting of the study region which influence on growth, distribution, and characteristics of population.

2) To understand the spatiotemporal distribution and density of population.

3) To analyze the growth of population and to study birth and death rate of population.

4) To find out sex-ratio, sex and age composition of population in the study region.

5) To understand the spatial pattern of literacy of population.

6) To study and analyze the evolution and growth of settlements.

7) To study the progress of rural settlements and spatial distribution, types, size and spacing of rural-settlements.

8) To study the internal morphology of the selected villages or settlements.

9) To study the morphology and village pattern, house type, of rural settlements.

10) To study and analyse origin, growth and distribution of urban settlements.

11) To study the functional classification of urban centres in the study region.
1.4 The sources of data

The present work is based on primary and secondary data. The data has been gathered from various sources and it includes both published and unpublished maps, census of India, Socio-economic abstract, district gazetteers, other different government publications and websites have been used to analyze the physical and socio-economic setting of the region and statistical reports are referred to collect the data for the present study. Primary data collected through questionnaire has been used to study the population trends and settlement distribution of the study region.

1.5 Methodology

The present study is based on different sources of data completion is followed by computation and rearrangement of data in tabular form. The data analysis includes both the theoretical and empirical approaches to study the spatial and temporal analysis of population and settlement. The final results of the statistical methods and important findings have been presented using the various cartographic techniques and maps to enhance the quality of work. Data collected is used in the preparation of maps, diagrams and graphs. Some of the important methods are used in the present study as given below:

1) Various types of the density of population is calculated

a) Agricultural density is calculated by using the following formula.

\[
\text{Agricultural density} = \frac{\text{Total Agricultural Population}}{\text{Net Sown Area}} \times 100
\]
b) Caloric density of population is computed by using the following formula.

\[ \text{Caloric density} = \frac{\text{Total Population}}{\text{Total Food Cropped Area}} \times 100 \]

c) Physiological density is calculated by using following formula.

\[ \text{Physiological density} = \frac{\text{Total Population}}{\text{Total Cultivated Area}} \times 100 \]

d) Tahasil-wise density of rural settlements is calculated by using following formula.

\[ \text{Density of Rural Settlements} = \frac{\text{Total Number of Inhabited Villages}}{\text{Total Rural Area}} \times 100 \]

2) The co-relation between average population and number of villages. And average population and number of villages per 100 Km\(^2\) is analyzed.

3) Birth-rate, death rate are computed as follows:

\[ \text{Birth rate} = \frac{\text{Number of Children Born in a year}}{\text{Total Population}} \times 1000 \]

\[ \text{Death rate} = \frac{\text{Number of Deaths in the Region}}{\text{Mid Year Population of the Region}} \times 1000 \]

4) Types of settlement have been identified by using dispersal index:

\[ \text{Dispersal index} = \frac{\text{Average Population Size of Settlements}(A)}{\text{Average Spacing of Settlements}(B)} \]

A) Average population size of settlement \(= \frac{\text{Total Rural Population}}{\text{Number of Settlements}} \)

B) Average spacing \(= \sqrt{\frac{\text{Total Rural Area}}{\text{Number of Settlements}}} \)
5) Spacing of rural settlement by using Walenty Winded’s method:

\[ D = \sqrt{\frac{A}{N}} \]

Where
- \( D \) = Average distance between settlements
- \( A \) = Total area
- \( N \) = No of settlements

6) Average population size is calculated as follows:

\[ S = \frac{P}{N} \]

Where
- \( S \) = Average population
- \( P \) = Rural population
- \( N \) = No. of settlements

7) Classifications of towns is done by Nelson’s Method

1.6 Review of Literature

Review of literature is significant part of research which helps to understand the gaps in research and methodology used in the research already done. It help researcher to select the topic and provide the guidelines for further work. The study relating to population and settlements required a considerable attention from various social scientist i.e from economist, sociologist planners and geographer. References of relevant studies have been mentioned in each chapter of the present work, were a brief review of important work has been
mentioned for understanding the trend of research in population and settlement geography.


Several research scholars have completed some important subjects in the field of population and settlement geography for their doctoral and M.Phil work.

So for Doctoral Degree is conserved Barade has analyzed population problem of Goa in his Ph.D. Thesis titled “Analysis of population problems in Goa.” His work is based on primary and secondary sources of data. Yusuf Khan (1990) has studied population characteristics of western Maharashtra in research work in titled “Western Maharashtra : A study in population geography.” He analyzed the factors affecting population trend and the influence of these factors on socio-economic condition. Pyre Ram (1976) he studied the spatial distribution and temporal trends of population in Bundelkhand region in his study he has, suggested that the region should be planned in
such a way that its resources which have not yet been fully utilized may get due attention and the imbalance in growth be checked. Ugade (2006) has studied population characteristics of Marathwada region in his research work entitled 'An analysis of population trends in Maharashtra. He analyzed the factors affecting on population trend and the influence of these factors on socio-economic conditions.

Sinha (1976) has studied distribution, growth, functions and service area of settlements of Chota Nagpur plateau in his Ph.D. thesis entitled 'Chota Nagpur plateau: A study of settlements geography. This study is based on primary and secondary sources of data. R.C. Sharma through his Ph.D. work "Settlement geography of India desert" studied classification distribution and evolution of rural settlements.

Bhole (1985) examined settlement pattern of Kokan in his Ph.D. Thesis "Kokan: A study of rural settlements. Choudhari (1986) evaluated rural settlement of Khandesh in his doctoral work submitted to the University of Poona. He has analyzed evolution place names types patterns, size, spacing and service area of rural settlements of Khandesh. Bhattacharya (1965) his studied settlements of Murshidabad district of West Bangal in his Ph.D. Thesis he analyzed the evolution, growth and morphology of settlements in a systemic way. He explained the impact of physical factors on evolution, growth and morphology and settlements.

Malshe P.T. (1974) The analyzed settlement system of Maharashtra. He studied structure, relationship, elements and functions of settlement systems. He also considered the boundaries of settlement system. He studies urban aspects of

Pasttapure (2008) as studied evolution distribution, growth and setting, types and patterns, morphology, house types and building material, rural services centers of rural settlements in Nanded district in his Ph.D. thesis entitled 'A study of rural habitat in Nanded district.' His study is based on primary and secondary data. Randeve through (2008) his Ph.D. work 'Geographical analysis of settlements in Man basin' Studied the growth, distribution types, rural house types and building material; location, site situation of settlements, rural service centers of rural settlements.

Various geographers and other scholars have focused the in attentions through various researchers papers published in various journals. They published their research work on different aspects of population and settlements such as density and distribution, growth, sex ratio, literacy birth and death rate etc. aspects of population and origin, evolution
place names location and distribution, setting size and spacing
types and patterns of house types morphology service centers etc.. Some of the notable works published in the form of research papers by different geographers are as follows.

Chandna and Sidu (1979) analyzed population geography as a part of human geography in his paper entitled sex ratio and its determinants. Chavan and Shoudane tried to explain the seasonal fertility rate in his paper entitled “A geographical study of village wise seasonal fertility rate Chopda tahsil” Gathade explains the types of population growth in his paper entitled “Geographical analysis of rural population concentration in Maharashtra.” Pandurkar studied mortality patterns and trends in Maharashtra in his research paper entitled mortality patterns and trends of poliomyelitis in Maharashtra. Prasanthi (2003) as tried to analyze demographic characteristics in million cities in his research paper entitled “Demographic characteristics and socio-economic development in Million cities of India.” Sharma (1978) as attempt to study spatio temporal patterns of population growth and distribution of Chattisgarh region in his research paper entitled “Spatio-temporal patterns of population growth and distribution : A regional analysis. Shrivastri and Koshan have examined the trends in sex ratio various sex differentials such as a rural urban age and cast of Seoni district in M.P. in his research paper entitled “Change in sex ratio of Seoni district (M.P).”

Singh (1978) as tried to analyzed rural settlement system structure and change for the Malwa region in his research entitled “The Malwa region : rural habitat system, structure and change.” Sing (1968) studied urban and rural
settlements of primeval towns and villages in his research paper entitled the territorial basis of medieval town and village settlement in eastern Uttar Pradesh, India. R.L. Shing through his famous articles evolution of settlements in the middle Ganga valley. He as attempted to explain the factors responsible for spatial diffusion of clan settlements. Mukherjee (1969) as studied spacing of rural settlements in Andhra Pradesh, he has analyzed spatial pattern of spacing cultural aspects on spacing. Tamaskar (1972) tried to analyze rural house types of sagar domah pleateau in his article entitled “Rural house types in sagar domah plateau.”

1.7 Organization of the Work:

The present study entitled Geographical Analysis of population and settlements in Latur district' is organized into seven chapters

The first chapter 'Introduction' deals with importance of the study objectives, data base, methodology, selection of the topic, brief review of literature and the selection of the topic.

The second chapter 'Geographical and socio-economic setting of the study region, deals with position and extends, physiography, drainage pattern, climate, soil, natural vegetations, general landuse, landuse classification of agriculture, irrigation, minerals, industries, transport and settlement.

The third chapter is devoted for the study of 'Population characteristics'. It also contains density of population, distribution of population, growth-rate of population, Birth and death rate population, sex-ratio, literacy.
The fourth chapter 'Evolution, spatial distribution, types, size and spacing of Rural settlement' deals with evolution, place names, progress of rural settlements, spatial distribution, types, population size of rural settlement, size and spacing of rural settlement.

The fifth chapter 'Morphology and house types of rural settlements' deals with the general morphological features of village, village patterns, factors affecting house types of rural settlements, classification of house types and their distribution, house types according to building material, plan, size and density occupied residential houses.

The Sixth chapter the study of 'Urban settlement' deals with origin, growth and distribution of urban settlements. Functional classification of urban settlements, the problems of classification of town, and method used, morphology of urban settlements.

The last chapter 'Conclusion and suggestion' is devoted to the conclusions and recommendation of the study.
References


33) Sharma R.C. (1972) "Settlement Geography of India Desert", Kumar Brothers, Hauzkhas, New Delhi, 16 P.85.


45) Tamaskar B.G. (1972) "Rural House types in Sagar Bamoh plateau”


