Chapter-I

INTRODUCTION

1.1 Introduction
1.2 Subject-Matter and Scope of Population Geography
1.3 Relationship of population geography with other disciplines
1.4 History and Growth of Population Geography
   (Approach to Study)
1.5 Types, Sources and Problems of Population Data
1.6 Objective of the study
1.7 Methodology
1.8 Tentative Chapter Scheme
Chapter I
INTRODUCTION

Population Geography has recently emerged as a separate discipline of study and research. It is concerned mainly with the spatial analysis of population. It involves not only the magnitude of the human population but also its different characteristics growth and mobility. It is related to other allied areas like demography, sociology, economics and related disciplines.

Population, term referring to the total human inhabitants of a specified area, such as a city, country, or continent, at a given time. Population study as a discipline is known as demography. It is concerned with the size, composition and distribution of populations their patterns of change over time through births, deaths, and migration and the determinants and consequences of such changes. Population studies yield knowledge important for planning, particularly by governments, in fields such as health, education, housing, social security, employment and environmental preservation. Such studies also provide information needed to formulate government population policies, which seek to modify demographic trends in order to achieve economic and social objectives.

In 1952 India took the lead among developing nations in adopting an official policy to slow its population growth. India’s stated purpose was to facilitate social and economic development by reducing the burden of a young and rapidly growing population. Surveys to ascertain contraceptive knowledge, attitude and practice showed a high proportion of couple’s within no more children. Few, however, practiced efficient contraception. Family-planning programs were seen as a way to satisfy a
desire for contraception by a large segment of the population and also to confer health benefits from spacing and limiting births.

Asia’s lowered growth rate can be attributed mainly to the stringent population policies of China. Although it has a huge population, China has successfully reduced both fertility and mortality. The government has recently been advocating one-child families to lower the nation’s growth rate from a current estimate of 14 per 1000 annually to close to zero by the year 2000. By 1979 more than 90 percent of the population in developing countries lived under governments that, in principle at least, supported access to contraceptives by their citizens, based on considerations of health and the right to choose whether and when to have children. Evidence indicates that progress toward the objectives of lowered fertility and national growth is being achieved in many nations, in part by government support for family-planning programs. Malthus’s main contribution to economics was his theory of population, published in An Essay on the Principle of Population (1798). According to Malthus, population tends to increase faster than the supply of goods available for its needs. The effect of this tendency is to depress living standards continuously to a bare subsistence level. Whenever a relative gain occurs in production over population growth, a higher rate of population increase is stimulated; on the other hand, if population grows too much faster than production, the growth is checked by famine, disease and war. Although Malthus’s theory contradicted the early 19th century belief in economic progress, it won supporters and was often used as an argument against efforts to better the conditions of the poor. Malthus did not believe his theory denied all hope of progress. He advocated a policy of moral restraint to keep population growth within manageable proportions. The writings of Malthus encouraged the first systematic demographic studies. They also influenced subsequent economists, particularly David Ricardo,
whose “iron law of wages” and theories of distribution of wealth contain some elements of Malthus’s theory.

Demography is an interdisciplinary field involving mathematics and statistics, biology, medicine, sociology, economics, history, geography and anthropology. The field of demography has a relatively brief history. Its beginning often is dated from the publication in 1798 of An Essay on the Principle of Population by the British economist Thomas Robert Malthus. In this work Malthus warned of the constant tendency for human population growth to outstrip food production and classified the various ways that such growth would, in consequence, be slowed. He distinguished between “positive checks” to population growth and “preventive checks”.

Geography of population is one of the recent springs up from the venerable trunk of science of geography. Glenn T. Trewartha of the United States was perhaps the most important personality to elevate population studies to the status of a systematic branch of Geography. He not only reminded the geographers of the neglect the man had suffered at their hands but also focused the attention of geographers at the significance of the role of man in determining the character of areas. According to Trewartha, man was the pivotal point from which all other elements are observed and derive their meaning and significance. Thus, it is population that furnishes the focus. While defining population geography Trewartha stressed that it was concerned with understanding the regional differences in the earth’s covering of people. Such a contention of Trewartha was to be viewed in the context of our science, the central theme of which was the understanding of the processes of spatial organization wherein population contributes the most dynamic element.
1.1 Introduction:

In 1953, when Trewartha offered a tentative scheme of the content and organization of materials in population geography, he confined it to
a) Geography of population in the past
b) Population numbers (including distribution, density, migration, growth, etc.)
c) Qualities of population and their regional patterns of distribution (including physical as well as socio-economic qualities.)

It was not until 1969 that Trewartha attempted a book on “A Geography of population: World Patterns” wherein he slightly modified the contents by divining the book into only two parts. First dealing with the geography of population in the past and the second with all the characteristics of population (Biological, Social, Cultural and Economical).

Apart from Trewartha, John I. Clarke (1965), Wilbur Zelinsky (1966), J. Beaujeu Garnier (1966), Gary L. Peters and Robert P. Larkin (1979), Robert woods (1979), R. C. Chandna along with M. S. Sidhu (1980) have also contributed to the growth of this sub-field by way of bringing out texts on the subject in their respective countries.

The immediate outcome of Trewartha’s plea for developing population geography as a separate systematic branch of geography, however, was the inclusion of a chapter on the geographic study of population in the classic volume “American Geography: Inventory and Prospects” edited by Preston E. James and Clarence F. Jones (1954). The Chapter was written by James himself. He recognized population geography as a distinct topical specialty which serves as a central theme around which the entire geographic investigations could be organised. He supports Trewartha’s plea for the development of population geography
as a systematic branch of geography as, accordingly to him, the understanding of demographic phenomena operating in an area can help in discovering the wide variety of causal connections between population and total physical, biotic and cultural environment.

James asserts that perhaps no other field of geography offers such challenging opportunities for basic research studies as are to be met in population geography. Accordingly, four major frontiers of research recognized by James include:

i) The development of more satisfactory methods of mapping the distribution of population

ii) The reconstruction of past population pattern

iii) The search for methods revealing more clearly the dynamics of population change

iv) The correlation of studies of cultural characteristics of population with other geographic phenomena.

Thus, Preston E. James' dissatisfaction with hitherto population distribution studies accomplished by geographers, particularly with their mapping and analysis, found expression in his worksheet for future population geographers. His conceptualization of the four major frontiers of research emphasized the need for developing better methods for reconstructing the past population pattern, better methods for revealing the processes of change and better methods for correlating demographic phenomena with other geographic phenomena.

John I. Clarke, former chairman, population commission of international geographical union, is credited with bringing out the first text on population geography in 1965. According to him geography of population was concerned with "Demonstrating how spatial variations in distribution, composition, migration and growth are related to the spatial variations in the nature of places". Thus, population geographer was
concerned with areal variations in population and their relation with physical, cultural and economic phenomena. He stressed that the population geographer should endeavor to unravel the complex inter-relationships between physical and human environments on the one hand and population on the other. According to him, the real substance of population geography was in its effort to explain and analyse these inter-relationships.

Although Clarke’s definition of population geography was not very much different from that of Trewartha, yet it reinforced the emphasis upon spatial aspect of population and its correlates. Such a reinforcement did help population geography in maintaining its focus upon the spatial perspective in the analysis of demographic phenomena and the processes involved in their spatial organization.

With a view to having an idea of the subject matter of population geography as supported by Clarke a look at his book Population Geography (1972) is revealing. To him, the human characteristics that form the content of population geography seem to fall into three groups:

a) Absolute numbers

b) Physical (age, sex race, intelligence, etc.), social (marital status, family, household, residence, literacy, education, language religion, nationality, ethnic group etc.) and economy (industry, occupation, income, etc.), characteristics.

c) Population dynamics (fertility, mortality, migration, change, etc.)

According to Pokhishevskii, it is the only means to prevent population geography from either slipping downward to formal descriptive presentation and abstract theorising or from being swallowed by adjacent discipline. For Pokhishevskii the basic goal of population geography was the discovery and application of laws that govern:
i) Distribution and dynamics of population
ii) Formative processes affecting settlement network
iii) Development of settlements and their relationships

However, there is an inherent fear of population geography becoming more of settlement geography if such a concept as stated above was accepted.

Lastly, population geographers should also become socially more responsible. We must shed away the gazetteer approach of accumulating more and more of information. Instead we should become more aware of social implications and social relevance of our research. Our concern for issues of public interest that are more relevant to society but also should dwell upon policy implications of our findings. Only then we shall be able to question the part played by the policy makers.

1.2 Subject-Matter and Scope of Population Geography:

Edward Ackerman indicates that the set of problems in population geography involves the identification of generic relations, which includes the categorization, classification and differentiation procedures. The next level of inquiry involves the establishment of genetic relationships, or dynamic aspects of spatial distributions in which the temporal variable is highly significant. The last step is the determination of co-variant relations, that is, the search for understanding the space relations of spatial processes, which are expressed in terms of areal association and interaction between and among phenomena.

The main field of population geography is the areal differentiation which is helpful for solving the problems of static relationships between variables. Population study by geographers should lead to a better understanding of the processes creating areal distribution as expressed in the concepts inherent in, and by the study of spatial interaction. The study
of population should consider the spatial system which arises from, or leads to the geographic character of population. Thus, the subject-matter of geography is spatial distribution and the spatial interaction of population. This will be meaningful only when carried a step further to include inquiry into the processes which influence, create, particular spatial distributions and interaction.

Population geography as a formal and systematic sub-field of the discipline of geography places greater emphasis on man. Man is the main focus of study of population geography. In addition to the inclusion of man's culture, his economic activities and his general distribution at present or in the past, there exists a need for better understanding of spatial aspects of population per se.

Zelinsky has stated that the scope of population geography should include a treatment of all the variables present in the census schedules of advanced nations. However, lack of uniformity among the censuses is essentially related to the composition of population, definition of workers, and definition of occupation and so on. The limits imposed on population geography are likely to be determined by the cultural and economic milieu in which population geographers have to work. The cultural context has been found to be relevant in its influence on the scope of population geography. According to Hettner, population must be treated dynamically. It involves the concepts of regional birth rates, death rates, migration and so on. The geographers focus should not be directed to the biological phenomena only. They should also consider the social qualities and the economic, political and social-psychological conditions comparative dependence of population on natural, economic and social conditions, and on the other hand, the contrasts in population numbers and densities in different parts of the earth. Hassinger proclaims that the
dynamic element, man, is not of less importance in the cultural landscape than his works.

Geography is basically the study of regions. The concept of the region cannot be divorced from the fact that an area has reality only in terms of the specific groups of inter-related elements which comprise it and that it can be studied only in terms of these elements which are the topical or systematic specializations of geography. Among the various groups of elements which cause the earth regions to differ, population is important. Population is the central element around which all other elements revolve. It is from population only that other elements derive geographical significance. Thus, the study of population is the single most important approach to geography and one in which the regional concept has its broadest application. Geography of population is not the science of man but it does include within its purview the study of man in his reciprocal relationship to the earth. The objective of population geography is an understanding of the regional differences in the people covering the earth. Any comprehensive geographical analysis of a region should take into account the differential growth of population. According to Trewartha, numbers, densities, distributions and qualities of the population provide the essential background for all geography. Ackerman pointed out that geography treats areal differentiations and all significant areal differentiations have a time dimension. Demographic movement is at the heart of the forces which influence the change in time and space content.

The subject-matter and scope of population geography can be delineated briefly as follows:

i) Study of population distribution in all its aspects, i.e. size and spacing of settlement of units, continental and subcontinental population distribution patterns, gross patterns of distribution
ecumenic and the non-ecumenic aspects, inter-temporal and inter-regional distribution.

ii) Density of population, its various types, determinants and density over the regions and world patterns.

iii) Spatial movement of population, internal migration, inter-nation migration, dominants, types, causes, consequences and laws of migration and the migration of highly quality manpower from LDCs (less developed countries) to DCs.

iv) Growth of population- measurement of population growth, birth and death rates, components of population growth, determinants, trend, causes, theories, and population projection.


The above scheme of study fits in well with the scope and subject-matter of population geography. Such a scheme is also in conformity with the one outlined by G. T. Trewartha. It should be noted that the various population attributes have to be studied in population geography both at a point of time and also over a period of time. Thus, both inter-temporal and inter-regional analyses form part of population geography. The discipline of population geography has to make a systematic study of various attributes of population, not in isolation but as a part of the process of the various demographic phenomena occurring spatially.
1.3 Relationship of population geography with other disciplines:

Population geography belongs to that borderland of geography which opens on economics, sociology and demography. While demography is devoted to numbers and depends heavily upon statistical methods, population geography relates numbers to area and relies on mapping. Clarke pointed out that population geography should study areal variations in population and their relationship with the physical, cultural and economic phenomena. The analysis of numbers and demographic processes for political units belongs to the area of demography.

Population geography is concerned with spatial analysis of population. It also incorporates the economic attributes of population like income, expenditure, occupation, income distribution, poverty and so on. The science of economics is basically concerned with allocation and valuation problems. It allocates the scarce resources among the competing ends. It also studies the economic behavior of components of population as producers as well as consumers. Whereas the subject-matter of economics is the money-earning and money-spending activities of human beings, the main focus of population geography is man as an important element on the surface of the earth. Thus, both economics and population geography are inter-related and they have many common grounds of analysis. This is perhaps the reason why population geography is considered as a part of economic geography in the Soviet Union. In fact, population geography cannot remain aloof from the domain of economic analysis pertaining to population.

Population geography is also related intimately to sociology. It studies the social attributes of population such as marriage, religion, caste, literacy, family, ethnicity, household system, and so on. Thus, these
two branches of knowledge are inseparable. They have obviously many common interactions.

Population geography is also related to biology. It studies the biological attributes of population, like age, sex, morbidity, health, intelligence, race and the like. A population geographer must have an intimate knowledge of biology.

However, population geography imbibes from all the connected disciplines of sociology, economics and biology, but it does not wholly depend on any individual discipline in total. It has its special method of study and way of analysis. It analyses population with respect to space and time. This is the differentiating character of population geography which distinguishes it from other disciplines.

Sociologists, economists, physicists and others have profitably turned their attention to distributional problems associated with depicting the structure of settlement, population agglomeration and social function. The works of Isard in economics, of Bogue in sociology and Stewart in physics are considered helpful contributions to the subjects which have engaged geographers for a long time. Geographers have drawn materials and insight from various related disciplines for understanding the complex problem of distribution structure of man's relation to the earth. Even geographers of the landscape school have contributed studies of indirect importance to demography through their studies of settlement. While relatively few geographers have undertaken comprehensive studies of the geography of population per se, it is safe to point out that a majority of them today will recognize a significant relationship between geography and demography. This has been evident since the end of the Second World War when the demographer began to broaden his field of study by seeking answers to population dynamics. Whereas anthropology traces the evolution of population over time, classifies races, history and
studies the trend of population, population geography emphasizes the spatial dimensions of population over time, or at a point of time.

1.4 History and Growth of Population Geography

(Approach to Study):

Population geography was a neglected subject to study for a long time. In the past it was not a separate subject in the area of geography or spatial analysis. Population geography was completely omitted in the past. Hartshorne, in his the Nature of Geography, made no reference to population geography as systematic discipline. In the index to this volume, it is indicated that the topic of population is referred to three times in the text, but the references are incidental. In the book, the Marking of Geography, Dickinson and Howarth have discussed the evolution of human geography without mentioning the place of population in the field. They have analyzed the social, economic, historical and political geography, but population is omitted. The index provided by them does not contain the word “population”. Similarly, the book, the Spirit and Purpose of Geography, written by Wooldridge and East has neglected the analysis of population with reference to geography. This shows that in the past population geography could not properly recognize the importance of the population element. Hettner did not single out population as a prime element for geographical study, although he recognized many other related aspects. Hettner proceeds to elevate population geography to an important position because, as he says, population has a great influence on all other geographic elements. But although Hettner specifically recognizes the field of population geography, he does not make any serious attempt to analyse its content or method. Camilie Vallaux in his essay on Human Geography contained in the Encyclopedia of the Social Sciences avoids mentioning population. In
Saure’s analysis, no mention is made of any special field of population geography. Similarly, Barrows in his essay Geography as Human Ecology, makes no reference to population.

Although Bruhnes recognizes the geographical importance of population, he proposes to study it obliquely through the channel of habitation and settlement morphology and, as a consequence, makes little contribution to population geography. Hettner made some illuminating remarks about population but he did not elaborate them sufficiently. Hassinger did not recognize population geography as a distinct branch of the subject as Hettner did. Hassinger’s analysis of man is disappointingly anthropological. Huntington and Shaw in their Principles of Human Geography did not make any direct reference to population.

Some amount of discussion on population is given by Pierre George of France. But on the whole, population geography remained a subject of little importance before the fifties of the present century. The question is: if population geography is so vital a subject why was it neglected so far? The reasons for the neglect of population geography are the following:

i) Prior to the World War II, reliable and sufficient data on population were not available for analysis. Many countries did not start census operations. Only a few countries outside North America and Western Europe had any records relating to population.

ii) The existing study on geography placed too much emphasis on the areal differentiations on the earth’s surface. Although the earth was inhabited by men, they were neglected. Thus, the study of geography in the past was like staging “Hamlet” without the prince of Denmark.
iii) In the past, considerable emphasis was laid on regional geography. It was considered as the core of geography.

The neglect of geography was evident in many fields of enquiry. For instance, in a survey of the publications of American geographers on population since 1925, there were only 45 titles within a period of a quarter century. The number of contributions on population geography in different journals was negligible. In many writings, population geography was given a subsidiary position, and it was made a branch of settlement geography. The population element was usually slighted in the holistic regional studies of American geographers. Secondly, much less work was being done in the area of population geography as far as doctoral dissertations were concerned. Out of a total of 343 doctoral dissertations completed in American universities up to June 1946, only 11 were on population. Thirdly, population geography was not included in the study courses in many American institutions. An inventory of the programmes in over 20 of the largest or most distinguished departments in America revealed that not a single department had a course dealing exclusively with population. From all this it appeared to Trewartha that population geography was systematically being neglected in the past. Till the fifties, geography was treated as a study of landscape.

Population geographers are also resorting to a system approach in cases of multivariate relationships. In such an approach the focus is primarily on the understanding of the structure and functioning of the system. It is a holistic process. In the system approach, the geographers should identify the attributes and involved parameters. Then, after the structure is defined, the structural relationship may be specified in terms of some equations. In that case it becomes easy to analyse the system and make prediction. It is also necessary to understand the system both endogenously as well as exogenously so that a theoretical formulation can
be made possible. It is a mechanical exercise for the study of a phenomenon. The system approach and behavioural approach to the study of population geography are not competitive but complementary in nature. The traditional systematic approach is helpful in understanding the apatial patterns of population, whereas the system approach and behavioural approach offer new ways of explanation for the implications involved in spatial patterns. Population geography is now making use of statistical methods of analysis, and it is becoming essentially more quantitative in character. It would be of immense help to population geography is developed gradually by the population geographers. Such a quantitative technique may be name as geogrametrics and it can function in the same way as econometrics for economic analysis, and psychometrics in psychoanalysis.

1.5 Types, Sources and Problems of Population Data:

Population geography is basically an empirical subject of study. As such it has to rely on empirical data for making study and protection. A population geographer has to have knowledge of different types and sources of data. He must also know the problems associated with population data from various sources. In what follows, we analyse the types, the sources and some of the problems of population data.

1.5.1 Types of Data:

There are mainly two types of data required by population geographers. On type of data, known as cross section data are collected from a cross-section of the population with respect to a particular variable or a group of variables at a point of time. The data may also be historical in character, extending over a period of time consisting of several years. Such data are called time series data. Time-series data are collected with respect to a particular variable or a group of variables for a long period of
time. Time series data give a long-run perspective, whereas cross-section data give only a temporal and short-term picture of a phenomenon.

The data may be collected from a particular family, household or individual. Such data will be micro level data which are utilized for micro level study. Data may also be collected from various families and countries for the system as a whole for macro level study. Macro level study requires macro level data which are to be collected for the country as a whole for finding some useful conclusion which will have policy implications.

The data may be personally collected by the investigator through questionnaires, schedule or personal interview methods. Such a method of data collection is known as primary method of data collection. Statistical data may also be collected from published sources like books, reports, journals and so on. This type of collection fo data is known as the secondary method of data collection. Whereas the primary data are collected by the investigator himself from the primary sources, the secondary data what have already been collected by somebody else and are available in published form. The study made by population geographers may be aggregative or disaggregative in nature and accordingly, they have to find out the suitable data. There are mainly three sources of population data census report, vital registration and miscellaneous sources. These sources are briefly described below:

1.5.2 Census:

In most countries, the population census is undertaken generally at ten year intervals. A census is an enumeration at a specified time of individuals inhabiting a specified area, during which operation particulars are collected regarding age, sex, marital status, occupation, religion, etc. a census does not intend to count the number of people alone. It collects information on the various aspects of the population. A census of
population may be defined as the total process of collecting, compiling and publishing demographic, economic and social data pertaining, at a specified time or times, to all persons in a country or delimited territory.

A census is primarily an official enumeration through direct contact with all people either physically present or regularly residing in a country, or in any of its divisions. An enumeration of all persons physically present is a de facto census, one confined to residents like the census of the USA and its sub-division is a de jure census. The main roots of population statistics hardly run back beyond the second half of the 17th century.

Censuses are not free from defects. Firstly, because of the changes in the definitions of some terms such as urban, workers, literacy, and occupation and so on, the census data of different countries cannot be compared. Secondly, boundary modification from time to time also makes the comparison of census data difficult. Thirdly, the census has not been introduced fully in many countries. In some countries, census taking is not regular. Even in the same country, the methods and modes of census-taking differ considerably. Fourthly the enumerators are mostly not trained and efficient. The information collected is also mostly biased. Fifthly, the figures given by the people relating to birth, death, age and the like are grossly inaccurate, misleading and unit for statistical analysis. Sixthly, the coverage of the census is inadequate. Many important aspects e.g., underemployment, income, wages and the like at different periods of the year are not covered by most of the censuses.

Seventhly, statisticians and demographers are associated with census-taking. It is also necessary to associate population geographers who can give advice regarding the type of data to be used for spatial analysis of population. In view of the wide disparity among countries
with regard to the census data and definitions, the United Nations has
been trying to bring uniformity in the census procedure.

1.5.3 Sample Surveys:

In the absence of the required data, the investigator may make a
sample survey with respect to a particular area in order to obtain data
from the primary sources. Data can be obtained through a statistical
survey, also called statistical enquiry or investigation. For example a
survey can be made regarding the consumption and income patterns of
the individuals of a particular locality. A statistical survey may be either a
general purpose survey or a special purpose survey. In a general purpose
survey we obtain data which are useful for several purposes. The best
example of this type of survey is the population census taken every 10
years in India. Such a survey provides information not only about the
total population but about its division into males and females, literates
and illiterates, employed and unemployed, age distribution, income
distribution, etc. A special purpose survey is that in which data obtained
are useful in analyzing a particular problem only. Surveys are essentially
for a limited purpose, limited time and limited area only, whereas a
census is for the entire country and is more general in nature. However,
for a specific study, particularly a micro level study, surveys have
become essential for the population geographers for collecting population
data.

The main sources of research material, which is immense use to the
author, are subdivided into primary sources and secondary sources. The
primary sources of research material are as follows:

Special questionary, personal interviews, personal correspondence,
partivipant observation, official documents of Grampanchayat office.
The secondary data of research material is as follows:


1.5.4 Problems of Population Data:

Population geographers have to face difficulties in using the population data for the purpose of research and studies. These data may have the following defects: inadequate information, insufficient coverage, biased data, and changes in definitions of vital matters, lack of uniformity and inaccuracy of the data. The data may be inaccurate owing to ignorance, bias and false statement on the part of the subjects of investigation. The investigators who have collected the data may not be properly trained and qualified. Thus, population geographers have to be very careful and cautious in using the vital data. There may also be the problem of over-enumeration or under-enumeration in many countries. The data become heterogeneous due to the changes in the definitions of the variables, changes in the boundaries, changes in the census units, changes in the connotations of the term used, and the like. Therefore, international comparison in many cases is not possible with respect to population data. The population geographers specially face two difficulties:

1) Frequent changes in the census units and areas

2) Lack of any definite map for showing the exact point of location of settlements.

Very often, population geographers will have to resort to indirect methods for calculation of vital rates. The indirect method has to be
Many calculations can be indirectly made with the help of sex composition data. This data is considered to be the most reliable information available in demography. Data regarding the age structure may be the most unreliable for many reasons. People have a tendency to hide their actual age. They very often understate their age. The population geographers can analyse the age-structure and age groups which can neutralize the effect of mis-statement and approximations. The population geographers find that there are no standard definitions of vital elements like literacy, urbanization, occupation and so on. This makes international comparison of these elements almost impossible. Therefore, what is required is a uniform set of definitions of all the vital terms as used in a standard census. This is perhaps one of the reasons why international studies on population problems are not coming out adequately. The necessity of standard and uniform definitions of vital terms is immediate and urgent. The task may be assigned to the United Nations. It can help the member-countries by evolving a set of uniform definitions and procedures which are required for census-taking in different countries. This will not only help the cause of research in the area of population, but will also broaden the scope of international comparison of vital statistics.

1.6 **Objectives of the Study:**

This study is aimed at bringing out the silent features of population through geographic analysis. The following aspect is intended to be analyzed.

1. To map and analyse distributional pattern of population on the basis of temporal and spatial level within the study region.

2. To find out population characteristics of the study region.
3. To find out literacy and manpower relationship within the study region.
4. To study migration and its immigrations in the study region
5. To find out population problems within the study region and suggest remedies to solve them.

1.7 Methodology:

The research is concerned with the geographical analysis of population of Latur district. Following a case study approach to the study work is done at different levels.

1. Firstly, data is collected from primary and secondary sources like special questionnaires, personal interviews, personal correspondence, participant observation, official documents of Talathi and Mamledar’s office, season and crop reports published by the govt. of Maharashtra, annual socio-economic review and district statistical abstracts of Latur district, district census hand books of Latur district, Gazetteers, agricultural epitomes, periodicals, map of Latur district published by govt. of Maharashtra. Thus data is collected and used for the period of 1981-2001.

2. After the data have been collected, the unorganised information is organised in a systematic manner by classification and tabulation methods.

3. Organised data is processed and represented by statistical and cartographic techniques. As the study reports to be geographical spirit the chorographic and chorological methodology is adopted. These involve the description and interpretation of the regional patterns revealed through choropleth methods.

4. To analyse the data some statistical equations are used for example growth rate of population is calculated as:
\[ r = \frac{(P_n - P_o)}{P_o} \times 100 \]

5. The study of all the villages in the region is difficult, time consuming and repetitive also therefore to make a more intensive study of population, sampling is done i.e. some villages is selected by the stratified weighted sampling method.

6. Latur district was a part of Osmanabad district till 16 Aug. 1982. Newly formed Latur district with ‘5’ talukas bifurcated from original Osmanabad district after 1981. Thus the data is not available separately for Latur district in a census book of 1981 and other Govt. Publications; it is led to the problem of collecting a data from such resources. To overcome such problem, villages and talukas, which were the part of Osmanabad dist. Till 1981 but became a part of Latur district from 1982 is determined as a part of Latur district in 1981 census. So data is collected according to same basis.

7. Again, same problem is appeared for those ‘54’ villages, which were transferred from Ambejogai talukas of Beed district. To overcome such problem same above said procedure would be followed.

8. Now, in year 2001 Latur district has 10 talukas, in year 1991 there were 5 talukas in district. Thus, new five talukas are formed till year 2001. The study is concern with the 10 talukas. It is determined that, any particular village of Latur district is a part of respective talukas as on 2001 position, which talukas. So data is collected according to the same basis.

1.8 Tentative Chapter Scheme:

The Research work is organized in to nine chapters:

First chapter of the thesis deals with introduction. The first half of the chapter contains meaning of the population geography and important of population geography to other applied social sciences and next part of
this chapter contains. I have study about the statement of the problems methodology and tentative chapter.

Second chapter thesis is related with geography of study area. In this chapter I have study total physical and culture of the study area.


In Fourth chapter I have study the temporal growth of population in Latur district from 1981-2001.

Chapter fifth deals with age and sex ratio in Latur district from 1981-2001. I have study what is change in a sex ratio in Latur district and which the causes behind on it.

Chapter six is related to the literacy pattern in Latur district in this chapter I have study how many growth in literacy pattern in Latur district from 1981-2001.

Seventh chapter of the thesis is conserved with migration of Latur district. In this chapter I have study important concept of migration which is related to my thesis.

Chapter eight is study two sample villages in my study area. At each taluka.

Last chapter conserved with conclusion and recommendation.
REFERENCES:


