1

INTRODUCTION TO POPULATION GEOGRAPHY

After going through this chapter you will be able to understand the following features:

Unit Structure

1.1 OBJECTIVES

By the end of this unit, you will be able to –

- Understand the concept, definition, nature, scope and importance of Population Geography

- Know about Population Geography and other Social Sciences

- Understand the Historical Development in Population Geography

1.2. INTRODUCTION

In this Chapter we will study Population geography, a division of human geography, and have an idea about the concept, definition, nature, scope and importance of Population Geography. Although Population Geography is a branch of Human Geography we will learn its relation with other Social Sciences also. Historical Development in Population Geography is an interesting part that has been dealt in this chapter.

1.3. SUBJECT-DISCUSSION

Population geography focuses on how the migration, distribution, and growth of population are affected by the nature of a place. It also put rays at the ideas of how many people live where and what impact it has on the world system.

Population geography has two distinct categories such as demography and spatial demography. By demography we understand the measurement of human characteristics. This includes the basic statistics on race, age, and gender, as well as measurements of education, housing, income, and employment. Demography also encompasses characteristics of a specific area, like population density, crime rate, and unemployment rate.

Generally, populations grow over an extended period of time. To effectively analyze population growth, geographers use a variety of measurements namely, Crude Birth Rate (CBR), Crude Death Rate (CDR), The Rate of Natural Increase (RNI) and TFR (Total Fertility Rate). These four measurements provide valuable data to population geographers. This again helps them to analyse why populations grow or decline in specific time periods. But History tells a different story. Down the ages numerous external factors such as famine, war, disease, and natural disasters have affected these numbers. Population Geography is heavily reliant on data collection in order to make accurate conclusions.

The most important feature in the study of population is location that determines the development of a certain area whether it is rural, suburban or urban. It has a control over the local economy too. Cultural traditions are also crucial in understanding these varied statistics for if a woman has easy access to birth control the growth of population will be less.

1.4. CONCEPT, DEFINITION AND NATURE OF POPULATION GEOGRAPHY

Population Geography is one of the modern branches of Geography. It is the study of the human population with respect to size, composition, spatial distribution and changes in the population that occur over time. Populations are altered by three basic processes: fertility (births), mortality (deaths), and migration (movement of people across space). Population geographers seek to understand the society around them, the structure of a population and how it changes through births, deaths and migration.

Glenn T. Trewartha of United States was perhaps the most important personality to elevate population studies to the status of a systematic branch of geography. 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 provides the focus. While defining population Trewartha stressed that it was concerned with understanding the regional differences in the earth's covering of people. Such argument of Trewartha was to be viewed in the context of our science, wherein population contributes the most dynamic element. It is difficult to dispute

Trewartha's contention, as the definition of population geography has to be formulated in the context of the nature of geography. Area differentiation is the central theme of geography in general and of population geography in particular. Since man is an important component of physical earth as well as the creator of cultural earth, Trewartha was justified in placing man at the centre of geographic thinking. As population geography constitutes one of the recently developed branches of geography, the subject matter and full content of this sub-field have been debatable. However, man has been considered the most undisputed and well established core of population geography and the various aspects of man have come to emerge as its subject matter.

Scope of Population Studies

The scope of Population Geography expanded during the middle of the previous century with increasing improvement in the quality and quantity of statistical data. While the scope for demographic research increased the field of study became diversified too. Urban studies, fertility studies, mortality studies etc. became fields of specialization. The discipline of population studies is no longer confined to statistical analysis alone but included social and economic aspects of population change too. Major advances in population studies could take place because of improvements in the methodology and techniques of population analysis. Important among these were techniques of estimating birth and death rates, population projections analysis of fertility data, intensive studies in the area of family planning and development of theoretical frameworks for better understanding of population phenomenon.

Importance of Population Geography

Population Geography is a branch of Human Geography. Population Geography involves demography in a geographical perspective. Population Geography focuses on the characteristics of population size and distribution. It also studies the population dynamics which include the past and present trends in growth and its spatial manifestation, components of population change i.e. fertility, mortality and migration. It also gives importance to population composition and structure. Population Geography also focuses on the movement and mobility of population, occupational structure and immigration of population. This branch of geography gives importance to every demographic phenomenon and here lies its importance.

1.5. RELATIONSHIP BETWEEN POPULATION GEOGRAPHY AND OTHER SOCIAL SCIENCES

Population studies are not the exclusive domain of any single social sciences. Apart from geography, demography, sociology, anthropology, economics, history etc. have been making positive contributions of their own in understanding various aspects of population. The discipline of the study of human population is known by two terms:

a. Population studies and

b. Demography

Population studies can be understood easily as studies concerned with population, whereas demography can be explained by pointing out that it is derived from the Greek word *demos* meaning people and hence is the science of population. Though these terms are often used interchangeably, scholars have tried to distinguish between **"Demographic Analysis"** and **"Population Studies"**. While the former deals with the components of population variation and change, the latter is concerned with the relationships between population changes and other variables- social, economic, political, biological, genetic, geographical and so on. The boundary lines between population geography and other social sciences also having their concern with population however cannot be drawn precisely.

The overlap is much more pronounced between demography and population geography. Traditionally, demography is concerned with statistical analysis of vital rates. Demographers have considered themselves more with the statistics of birth, deaths and marriages and have ignored the influence of migration and spatial variations in general. Demography has often been considered as quantitative study of human population. Demographers have shown greater concern for sources of data, their quality and availability, and mechanism of analysis. However, it would be totally improper to refer to demographers as population statisticians who lack sense of space. In recent years, the contribution of demographers include many examples where regional and national levels of mortality or fertility have been the subject of discussion or where fertility, mortality and migration have been combined to generate interregional population growth models. Infact, demography and population geography are so intimately related with each other that these can be merged together if the population geographers adopt the demographer's analytical sophistication and the demographer, in return becomes more spatial.

Other disciplines look at population geography from their own perspective. A **sociologist** finds his greater concern with the studies relating to social groups in their institutional organization. The **anthropologist's** main concern on the other hand lies in three major problems of man:

a.   the evolution of man

b.   the ontogenetic development of man and

c.   the classification of human races.

For an **economist** the main concern is only the incidental and economic implications of any demographic patterns. **Historians**, on the other hand have been more interested in tracing the population trends through time.

Thus, geography is unique vis-a vis other social sciences with regard to population studies as it has an emphasis upon spatial perspective. It is this distinguishing feature of geography that sets it apart from other social sciences, which also deals with population phenomena. While it is true that population geography distinguishes itself from other social sciences dealing with population mainly on the basis of its chronological approach, there are also significant differences in the spectrum of population phenomena being covered by various social sciences. This is so because each social science has its own objective to achieve.

1.6. HISTORICAL DEVELOPMENT IN POPULATION GEOGRAPHY

It was in the middle of the seventeenth century that population studies emerged as a discipline in England. Most of its early development took place in European countries. Later, the United States of America contributed substantially towards the development of this discipline. The credit for initiating a new field of empirical research in population studies goes to **John Graunt** who is acclaimed as the "**Father of Demography and Population Studies**". Graunt's study is monumental in several respects. He considered many aspects in the field of population studies, which are regarded as important even today. He critically examined the data on mortality and fertility and pointed out their weaknesses, biases and inadequacies. He is therefore deemed to be a pioneer as he started an important tradition of evaluating any population data for various biases and lacuna and of devising adjustments in them before using them for research purposes. Some of Gaunt's English contemporaries and successors share with him the credit of founding population studies. Among them mention may be made of **Sir William Petty (1623-1687)** whose "**Political Arithmetic**" has considerably influenced the future development of population studies. **Sir Edmund Halley (1665-1742)** was an English astronomer who made sufficient contribution to population studies. In **1693**, he constructed the first empirical life table, based on the data of births and deaths. It was he who coined the term "**Expectation of Life**".

The works of Graunt, Petty and Halley inspired further research in other European countries like Germany, Netherlands and Sweden. In **1798**, the publication of an essay entitled, "**An essay on the principles of population as it affects the future improvement of Society**" by **Thomas R.Malthus** attracted great deal of attention and gave rise to controversy. The main theme of this essay was that while man could increase his subsistence only in arithmetic progression his numbers tended to increase in geometrical progression. Population growth was therefore to be regarded as the principal cause of poverty. This was an important landmark in the history of population studies.

In the early years of twentieth century, demographers in England and other European countries started taking keen interest in the study of fertility owing to the steep fall in birth rate in England and other European

countries. In **1922**, **A.M Carr-Saunders**, a biologist published his book "**The Population Problem"** containing a systematic statement of the problems of population size and growth and a discussion of the genetic question.

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. and

c. qualities of population and their regional patterns of distribution

Later, in **1969**, when Trewartha's book on "**A Geography of Population: World Patterns"** was released, he had altered the contents slightly by dividing the book into two parts, the first part dealing with geography of population in the past and the second part with the characteristics of population.

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)**, as well as **R.C.Chandna(1980)** have also contributed to the growth of this subfield by way of bringing out texts on the subject in their respective countries.

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 distribution, composition migration and growth are related to the spatial variations in the nature of places". 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 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.

Another attempt was made by **Wilbur Zelinsky** who in his book, "**A Prologue to Population Geography"** defines population geography as a science that deals with the ways in which the geographic character of a place is formed by, and in turn reacts upon, a set of population phenomena that vary within it through both space and time as they follow their own behavorial laws, interacting one with another and with numerous non demographic phenomena.

In France, **Beaujeu-Garnier** brought out a volume on "**Geography of Population"** in French **(1956-58)** which was later translated in English by **S.H.Beaver(1966)** whereby she considered the description of

demographic facts in their present environment context, studying also their causes, their regional characteristics and possible consequences as the foremost business of population geographers. According to her, geographic analysis of population was confined to three main aspects:

a.   the distribution of people on the globe

b.   the evolution of human societies and

c.   the degree of success which they have achieved.

The aspects covered by the authors in their book include population distribution, fertility, mortality, movements and occupations.

Gary L. Peters and **Robert .P.Larkin(1979)** who brought out their "**Population Geography: Problems Concepts and Prospects**" however do not offer any definition of the sub-field and feel satisfied with a simple mention of various definitions of the subject forwarded by earlier contributors. The contents of the book cover a vast variety of population characteristics including distribution, composition, change, fertility, mortality, mobility, residence, population policy, population and food supply etc.

The publication of **Population Analysis in Geography(Woods,1979)** added a new dimension to the study of population in geography. Although the book begins with a differentiation between population geography and demography and ends up with future developments in population studies and population geography, yet the book is greatly oriented towards the use and development of models in analyzing population behaviour. True to the spirit of its title, the book is devoted to the analysis of various population attributes like fertility, mortality and mobility.

In the former Soviet Union no such attempt has been made to date to bring out a book on population geography. The Soviet geographers did not admit of any environmental determinism and pleaded that man was more an economically productive being. It is in this light that in Soviet Union population studies constitute a part of economic geography. Their concept of population geography included within it the geography of settlements, history of settlements, labour sources, etc.

1.6.1 Historical Development of Population Geography in India

The earliest reference to population data appears in Kautilya's **Arthashastra** where a detailed description of how to conduct a population, economic and agricultural census is mentioned. The **Ain-I-Akabari** by **AbulFazal** too contains comprehensive data on population, industry, wealth and characteristics of population. Data on population in modern India became available only after the system of decennial census in 1872. This may be considered as the starting point of population studies in India. Based on census reports from 1872-1941, **Kingsley Davis**, the well known demographer, produced his monumental work **The**

Population of India and Pakistan which is valued till date for its contribution to the progress of population studies in India.

While tracing the development of population studies in India, it is worth mentioning the role of **Imperial Gazetteers** which contain a thorough and exhaustive account of India and her people. The Imperial Gazetteers were first published in nine volumes in **1881** at the initiative of **W.W.Hunter**. **P.K.Wattal's** book *Population Problems in India* was pioneer in its attempt to focus the attention of Indian intelligentsia on population problems in India. The book first appeared in **1916** but a revised edition appeared in **1933**. In **1938**, **Dr. Radhakamal Mukherjee** emphasized the need for agricultural development to cope up with growing population in his book **Food Planning for Four Hundred Million**.

Although population geography in India had a late start **(early 1960)**, yet it has made remarkable progress during its short life span of about 50 years. In early days of development of geography in India, urban geography and agricultural geography remained relatively more favoured branches of systematic geography. The initial framework of India's population geography was provided by doctoral work of **Gosal (1956)** supervised by **Glenn Trewartha**.

The Department of Geography at the Punjab University, Chandigarh was the first in India to introduce teaching and research in population geography at the post graduate level in early **1960s**. It is to be mentioned here that the Indian demographic scene is diverse and complex and therefore it is possible for Indian geographers to use sophisticated quantitative techniques in the study of population geography. The quantification and use of sophisticated techniques shall not only bring precision in interpretation but also shall help in the development of theories. The demographic scene in India provides a rich laboratory to population geographers for the development of models and theories that fit into spatial-cultural-political-historical context of India.

Some credit for the progress in population geography must be given to the Census of India which is more than a hundred years old. The variety of information being collected, the reliability and the efficiency with which the basic data are released are all commendable. An easy access to the vast treasure of Indian Census data did encourage geographers to take up geographic analysis of population for almost all parts of the country both at micro and macro levels. It promoted the development of population geography in India. However, Census alone is not sufficient for detailed study of population geography. Fieldwork is necessary not only for supplementing the work with additional primary data but also for understanding the processes that create existing spatial distributions. It is only through fieldwork that one can feel the pulse of the region.

The dearth of data on various social, economic and population aspects was keenly felt when the Five Year Plans were being drafted. Reliable estimates of births and deaths were missing because of inadequacy of vital registration system. The nationwide **National Sample Survey (NSS)**

System was therefore established in **1949** to meet this need and produce data for the evaluation of development plans. The NSS started collecting data on birth and death rates and on the rates of population growth from its fourteenth round taken in 1958-59. It also collected data on differential fertility, family planning knowledge, attitude and practice for rural and urban areas, internal migration, employment etc.

As far as the content of population geography is concerned, there are core and peripheral issues. Those at the core are largely concerned with the major issues of distribution and structure of population, mortality, fertility and migration, their cause and consequences over space and time and how they affect other socio-cultural, economic, political and environmental issues. At the periphery lie issues that are central to other specializations such as urbanization social segregation etc. Indian geographers have limited their study of population to certain attributes such as growth of population, literacy, sex composition, working composition etc. A neglected area has always been that of vital rates like fertility and mortality perhaps due to non availability of census data on vital rates. The redeeming feature is that a few studies on fertility and its determinants at micro level have recently been taken up by Indian geographers.

Publication of text books is another measure of the growth of specialization. The first introductory text in Population geography in India appeared in **1980** by **Chandna**. Again, the first book dealing exclusively with various attributes of scheduled caste population of India was brought out in **1989**.

1.7. SUMMARY

Population Geography is a subset of Population Studies that focuses on, spatial patterns and processes. Geographers tend to study migration more than fertility and mortality along with the environmental impacts on population. Population is not uniformly distributed throughout the world or any country. The same is true about India too. Some parts of the country are densely populated, some parts moderately populated and some parts are sparsely populated. The growth of population in a region depends upon fertility, mortality and migration. The growth rate of population may be positive or negative. A positive growth rate of population means an increase in the number of people living in a region whereas negative growth rate means declining population. The population of India has been increasing steadily since 1921. The major factor responsible for it has been a very rapid decline in the death rate. Other disciplines look at population geography from their own perspective. A sociologist focuses on the studies relating to social groups. The anthropologist's main concern lies in the major problems of man. For an economist the main concern is only the incidental and economic implications of any demographic patterns. Historians, on the other hand have been more interested in tracing the population trends through time. On the contrary in 'Essay on the Principle of Population', Malthus proposes the principle that human populations grow exponentially i.e., doubling with each cycle while food production grows at an arithmetic rate.

1.8. CHECK YOUR PROGRESS/ EXERCISE

1.   True and false

a. Population Geography focuses on the characteristics of population size and distribution.

b. The word demography has been derived from the Greek word *demos* meaning society.

c. The anthropologist's are concerned about the evolution, the ontogenetic development of man and the classification of human races.

d. Historians have been interested in tracing the population trends through time.

e. Sir William Petty(1623-1687) wrote "Political Science"

2.   Fill in the blanks

a. For an _____ the main concern is only the incidental and economic implications of any demographic patterns

b. The earliest reference to population data appears in Kautilya's _____ where a detailed description of how to conduct a population, economic and _____ census is mentioned.

c. _____ _____ by AbulFazal contains comprehensive data on population, industry, wealth and _____ of population

d. Populations are altered by three basic processes: _____, _____ and _____.

e. Trewartha placed _____ at the centre of geographic thinking.

3.   Multiple choice question

a.   Population Geography is a branch of

i.   Human Geography.

ii.   Economic Geography

iii.   Physical Geography

b.   This man is acclaimed as the "Father of Demography and Population Studies".

i.   Beaujeu-Garnier,

ii.   John Graunt

iii.   S.H.Beaver

c.   Ain-I-Akabari is written by

i.   Amir Fazal

ii.   Ahmad Fazal

iii.   AbulFazal

d.   A.M Carr-Saunders, a biologist published his book

i.   "The Population Problem"

ii.   "The Demography Problem"

iii.   "The Population Solution"

e.   "An essay on the principles of population as it affects the future
       improvement of Society" is written by

i.   Harry R. Malthus

ii.   Simon R. Malthus

iii.   Thomas R. Malthus

4.   Answer the Following Questions

1. Discuss the Nature and scope of Population Geography

2. Discuss the scope and importance of Population Geography

3. Describe the relationship between Population Geography and other
    Social Sciences

4. Give the Historical Development in Population Geography in the
    world and in India

1.9. ANSWERS TO THE SELF LEARNING QUESTIONS.

1.a .true
1.b. false, people
1.c. true
1.d. true
1.e. false, Arithmetic

2.a. economist
2.b. Arthashastra, agricultural
2.c. Ain-I-Akabari, characteristics
2.d. fertility, mortality, and migration.
2.e. man

3.a.i
3.b.ii
3.c.iii
3.d.i
3.e.iii

1.10. TECHNICAL WORDS:

- **Crude Birth Rate (CBR)** -measures all live births per 1000 people.

- **Crude Death Rate (CDR**)-measures all deaths per 1000 people. In this case, the age or cause of death does not matter.

- **The Rate of Natural Increase (RNI)-**is calculated by subtracting the Crude Death Rate from the Crude Birth Rate (CBR – CDR = RNI)

- **TFR (Total Fertility Rate)-**measures the number of children a woman is potentially able to have.

- **Migration-**migration refers to the movement of people from one area to the other or from one country to another.

- **Arithmetic Rate-**the repeated addition of a uniform increment in each uniform interval of time

1.11. TASK

1. In a chart show the books and name of the authors of population geography

1.12. REFERENCES FOR FURTHER STUDY

- Population Geography, Deplane Roy

- Population Geography: Tools & Issues, K. Bruce Newbolt

- The Population of India and Pakistan, Davis, Kingsley

- The study of Population, Duncan(ed)

- Oxford English Dictionary

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2

POPULATION DYNAMICS

After going through this chapter you will be able to understand the following features:

Unit Structure

2.1. OBJECTIVES

By the end of this unit you will be able to –

- Understand the Population Growth, Distribution and Density

- Know about definition, causes, effects and remedies to control the growth of population.

- Understand the zones of density of population in world.

2.2. INTRODUCTION

In the previous chapter we have studied the definition, nature, scope and importance of Population Geography. We have also learnt its relation with other Social Sciences along with historical development in Population Geography. In this chapter we are going to study the Population Growth, Distribution and Density as well as definition, causes, effects and remedies to control the growth of population. Zones

of density of population in world will also be learnt in the following chapter.

2.3. SUBJECT-DISCUSSION

Population geography is an independent sub-field of human geography. It is a comparatively recent phenomenon. In the term 'population geography', the word 'population' signifies the subject matter and 'geography' refers to the perspective of investigation. Hence, population geography can be interpreted as the study of population in spatial perspective. The concept of population change or growth of population is often used to connote the change in the number of inhabitants of a territory during a specific period of time, irrespective of the fact whether change is positive or negative. Such a change can be measured both in terms of absolute number and in terms of percentage.

2.4.   POPULATION GROWTH

2.4.1. Definition of Growth

The term "growth" loosely refers to change in population over time and space. Growth may be either positive implying an increase in population number or it may be negative corresponding to a decrease in the number of people. The three components of growth are: fertility, mortality and mobility. **Fertility** refers to the occurrence of birth. Various methods of fertility have been coined. These include crude birth rate, general fertility rate, child woman ratio, fertility ratio, age specific birth rate, total fertility rate, reproduction/ replacement rate etc. **Mortality** is defined as permanent disappearance of all evidence of life at any time after birth has taken place. Various indices of mortality have been coined including crude death rate, age specific death rate, infant mortality rate, maternal mortality rate amongst others. The third major component of growth or **mobility** is the most difficult to be measured due to lack of data. Measurement of mobility or migration is difficult due to lack of proper documentation. All three components influence growth of population and a positive growth will lead to numerical increase of population.

2.4.2. Causes of Growth of Population

a.   Decline in the Death Rate

The fall in death rates that is decline in mortality rate is one fundamental causes of growth of population. Owing to the advancements in medical science the life expectancy of man has increased. Mortality rate has declined leading to an increase in population.

b.   Rise in the Birth Rate

Medicines of today can enhance the reproductive rate in human beings. There are medicines and treatments, which can help in conception. Thus, science has led to an increase in birth rate.

c. Migration

Immigration is a problem in some parts of the world. If the inhabitants of various countries migrate to a particular part of the world and settle over there, the area suffers from growth of population.

d. Lack of Education

Illiteracy is another important cause of growth of population. Those lacking education fail to understand the need to prevent excessive growth of population. They are unaware of the ways to control population. Lack of family planning is commonly seen among the illiterates. This is one of the major factors leading to the growth of population.

2.4.3. Effects of Growth of Population

a. Depletion of Natural Resources

The effects of growth of population are quite severe. The first of these is the depletion of resources. More population means more needs. The Earth can only produce a limited amount of water and food, which is falling short of the current needs. Most of the environmental damage being seen in the last fifty years is because of the growing number of people on the planet.

b. Degradation of Environment

With the overuse of coal, oil and natural gas, there are certain serious effects on our environment. Rise in the number of vehicles and industries have badly affected the quality of air. Rise in amount of CO_2 emissions leads to global warming. Melting of polar ice caps, changing climate patterns, rise in sea level are few of the consequences that we might have to face due to environment pollution.

c. Rise in Unemployment:

High growth of population leads to unemployment. Rise in unemployment gives rise to crime.

d. High Cost of Living

As difference between demand and supply continues to expand due to high growth of population, it raises the prices of various commodities including food, shelter and healthcare. This means that people have to pay more to survive and feed their families.

e. Pressure on Infrastructure

Development of infrastructural facilities cannot keep pace with the high growth of population. The result is lack of transportation, communication, housing, education, healthcare etc. There is an increase in the number of slums, overcrowded houses, traffic congestion etc.

2.4.4. Remedies to Control the Growth of Population

a. Better Education

Educating the masses is the first step to control high growth of population. Families who choose to have four or five children should be discouraged. Female literacy programmes must be promoted in all states.

b. Making People Aware of Family Planning

As population of this world is growing at a rapid pace, raising awareness among people regarding family planning is the need of the hour.

c. Tax Benefits or Concessions

Government of various countries should have policies related to tax exemptions to control the growth of population. There should be low rate tax concessions for those who have single or two children.

d. Assistance to States

Central assistance to states must be linked with their genuine performance in family planning.

2.5. WORLD DISTRIBUTION OF POPULATION

The study of world population trends shows that in most parts of the world, population is distributed unevenly and that the total population of the world has been increasing continuously. The total global population was 100 crore (one billion) in 1830. By 1930, it rose by another 100 crore, making the total population 200 crore. But after 1930, population increased by 100 crores in 1960 in just30 years while after 15 years the world's population became 400 crores in 1975. In 2001 the population had grown to 613 crores and is expected to grow to around 830 crores in 2025. Yet, population is very unevenly distributed. China with 1333 million inhabitants (2008) was the most populous country of the world. Its population was more than the total population of all the developed countries put together. India with a population of 1140 million (2008) ranked second and was followed by USA 304 million (2008), Indonesia 228 million (2008), Brazil 192million (2008), Pakistan 166million (2008). While India is experiencing the demographic trap, China has almost succeeded in stabilizing its population while Pakistan, Bangladesh, Nigeria and Brazil are still held up in the explosive stage of demographic transition. Very soon it has been estimated that India would become the most populous country and China will become a distantly placed second ranking country and Russia and Japan will no longer have a place in the top ten most populous countries of the world. Instead Congo Democratic Republic and Philippines will rank among the top ten most populous countries of the world. It is estimated that by 2025, China's population will reach 1458 million and India's population

will be 1398 million .Thereafter India's population will exceed that of China.

2.5.1. Unequal Distribution of World Population

Since the beginning of human civilization there has been inequality in the distribution of the world's resources. The factors responsible for this are the availability of natural resources, favourable environment and related factors like transport and communication, and other facilities which play pivotal role in determining density of population. The distribution of population all over the world is not ubiquitous as there are vast regional disparities. According to Clarke ¾th people live within a height of 2000 m above sea level and 2/3rd of them live within a height of 500m above sea level. Only about 20% of the total land area is habitable and almost 80% of the world's population is concentrated here. Those areas fit for human habitation or those occupied by human settlements have been termed "**ecumene"** while those uninhabitable areas that are either too hot or too wet or too cold and dry have been termed "**non-ecumene"**. Three fourth of the world population is concentrated in four continents of Asia, Europe and the Americas in the major human agglomerations of East Asia, South Asia, North West Europe and North East America.

The world's population is unevenly distributed, with six of Earth's seven continents being permanently inhabited on a large scale. Asia is by far the most populous continent, with its 4.1 billion inhabitants accounting for over 60% of the world population. The world's two most-populated countries alone China and India are situated here and together they, constitute about 37% of the world's population. Africa is the second-most-populated continent, with around 1 billion people, or 15% of the world's population. Europe's 733 million people make up 11% of the world's population, while Latin America and Caribbean islands are home to 589 million (9%). North America has a population of around 352 million (5%), and Oceania, the least-populated region, has about 35 million inhabitants (0.5%)

2.5.2. Reasons for Unequal Distribution of World Population

In many parts of the world, the density of population is high while in others it is very low. There are several factors for unequal distribution of world population. The main factors responsible for this are as follows:

- **Landforms**

Landforms influence the distributional pattern of population both at macro and micro level. It is normal to have high density in the plains moderate density in the plateau and low density in the mountains but on a micro level other factors like altitude, slope, drainage, subsoil, water table which also affect population distribution. Apart from altitude, slope plays a major deterrent to human settlements. The steepness of slope not only delimits extent of arable land, but the cost involved in construction of

houses and roads on them is highly prohibitive. Drainage conditions also play a major role in influencing the pattern of distribution of human settlement. Swampy areas and marshes forbid human settlements. The Rann of Kutch region of Kathiawar peninsula continues to remain relatively less densely populated mainly due to the conditions of poor drainage.

- **Fertile land**

Human settlements on large scale are at places which are more fertile and where with less effort the agricultural yield is more. On the other hand, places which are less fertile have less density of population. As such, hilly and rocky regions are less densely populated. Hence the Indo Gangetic plains and the Ganga Brahmaputra delta are the most populated areas of the world. In regions of uniform landform and climate, variation in soil structure may result in local variation in landuse and hence population distribution. So while volcanic soils as in Deccan Plateau of Maharashtra and deep alluvium deposits of Ganga Brahmaputra Basin have immense capacity for supporting large population.

- **Favourable Climate**

Climate plays a very important part in the distribution of population, through temperature conditions, amount of rainfall as well as the length of growing season. From the beginning of human civilization, favourable climate is considered as an important factor responsible for human habitation. Man has always been averse to settling in those lands which have extremes of temperature and precipitation. The wet tropics with their abundance of solar energy and precipitation have maximum density. Asia's densest human habitations are found in areas influenced by the monsoon. South East Asia with its long growing season is rightly termed as the land of "rice culture".

- **Availability of water supply**

Water is essential for life. The places which have abundant water for daily consumption and for agricultural purposes are moderately to densely populated. In the present era, even industries are established at places which have sufficient supply of water.

- **Minerals and Energy Resources**

Every nation possesses some type of mineral wealth. The importance of minerals as raw material for industry has always encouraged human settlement. The growth of urban settlements after setting up of industries like the steel plants reaffirm the fact that population concentration is high on those places where minerals are available.

- **Space relationship**

The location of a place in relation to other areas and to major transportation routes plays an important part in supporting

population. At places where transportation costs are low, we find localization and centralization of industries and concentration of population. Consequently the density of population increases.

It can be concluded that there are a number of combinations of physical situation found on the earth's surface which make it almost impossible to prepare an exhaustive list of physical determinants. The degree of influence of each physical factor may vary both in time and space depending on its temporal-spatial peculiarities. There is no clear cut cause and effect co-relation between any individual physical factor and population density because whatever we see is not a single set of cause and effect relationship. Hence, it would be foolish to search for the role of any single physical factor in isolation from cultural and demographic factors.

- **Socio-Cultural Factors**

Among various cultural factors that have controlling effect upon the population spread are history of settlement, type of economy, advancement in technology, political decisions and social organization. Social factors also effect the distribution and concentration of population. Where social customs and taboos are extreme, people tend to migrate outside so the density of population of that area changes. Migration is also induced by educational factors. Students often tend to migrate for attaining higher education and if the environment of the new country is adaptable to them, they tend to settle there permanently. At present lakhs of youth from Asia and Africa have migrated to America, Canada and European countries for higher studies and after getting they have settled there permanently.

- **Economic Factors**

This has been considered an important factor affecting the distribution and concentration of population at one place. The places which have good opportunities for employment and possibilities of trade in industrial products attract migrants from different areas. As migration takes place on a large scale, the density of population increases at the migrated place. Generally, during the process of economic development, migration of population takes place on a large scale from rural to urban areas.

The economic viability of an area lies in its carrying capacity and its ability to provide employment opportunities. This in turn would affect not only the size of population but also its spacing. The type of economy of an area has, governs to a large extent its supporting capacity. A network of settlements in a primarily agrarian society is bound to be different from that in an industrialized society due to basic differences in the needs of the two situations.

In an industrialized society not only the size of settlements is large but also the density of population is conspicuously high when compared with agrarian societies. Small sized closely spaced settlement is usually common in agricultural tracts.

The technological advancements do add other dimensions to the controls of population distribution and density. Technology may increase supporting capacity of areas and lead to higher density of population. Technological innovations may also make human habitation possible in areas which formerly had been devoid of human population. The best example of technological innovation is evident in Ganganagar district of Rajasthan where an erstwhile desert region has been transformed into an agricultural tract.

- **Political factors**

In recent times political factors have played a major role in changes of world population distribution. If the people feel that their expectations are not fulfilled by the government, or if the public is dissatisfied with the political system, then they migrate from the country and settle in another. A variety of political factors have also affected population distribution and density in different areas at different times. The partition of India in 1947 did generate redistribution tendencies in certain areas. The aftermath of partition in 1947 and the subsequent war in 1971 saw people from Bangladesh settling down in Dandakaranya. The political decisions also play a decisive role in channelizing currents of migration and in generating redistribution tendencies within their own territories.

At micro level, factors like social organization and inter group antipathies can also influence the distributional patterns of population in specific positions. The distribution of population is quite often affected by the objectives which a society strives to achieve and by the form of social status which are taken to achieve the said objectives. So while in capitalist societies the population clusters around sources of energy and raw materials, in socialist societies planned relocation of population tends to produce more even distribution.

- **Demographic factors**

The change in the distribution of population in the world takes place through variation in the rate of natural increase and also through medium of migration between areas. Thus, the demographic factors of vital rates and migration introduce another dimension to the inventory of determinants of population distribution and density. There are wide regional variations in the patters of fertility, mortality and mobility which give rise to varying patterns of population increase.

From the preceding discussion it is obvious that population distribution and density in an area is the product of interplay between the physical milieu and society through the matrix of time. According to Zelinsky (1966,p53) in order to understand the meanings lying behind the contemporary pattern of population one must wield encyclopedic

knowledge of area's physical setting, the minutes of the economic behaviour, the broader lineaments of its cultural and social structure and virtually all aspects of its human geography.

2.6.   DENSITY OF POPULATION

The terms "distribution" and "density" may not be identical while referring to population concentration but are intimately related. Therefore, the need arises to discuss both the concepts simultaneously in this chapter. The first point of differentiation between the two is that while distribution is a locational concept density is a proportional one. In simple words, population concentration is the ratio between the size of population and the area. While dealing with distribution the concern is more for the pattern of spread of population. Density on the other hand is also some kind of man-land ratio and hence cannot be separated entirely from distribution.

In terms of density of population, Asia remains at the top. In 1970-71 the density of Asia was 75 persons/sq km. while in 2011 it was 86.7persons/sq km. Such addition is really staggering particularly because the continent has limited resource with very slow pace of socio-economic development.

The world's population is 7 billion, and Earth's total area (including land and water) is 510 million square kilometers (197 million square miles). Therefore the worldwide human population density is 6.8 billion ÷ 510 million = 13.3 per km^2 (34.5 per sq. mile). If only the Earth's land area of 150 million km^2 (58 million sq. miles) is taken into account then human population density increases to 45.3 per km^2(117.2 per sq. mile). This calculation includes all continental and island land area, including Antarctica. Antarctica, we know is not fit for human habitation due to various reasons. If Antarctica is also excluded, then population density rises to 50 people per km^2 (129.28 per sq. mile).Considering that over half of the Earth's land mass consists of areas inhospitable to human inhabitation, such as deserts and high mountains, and that population tends to cluster around seaports and fresh water sources, this number by itself does not give any meaningful measurement of human population density.

Population Concentration in Different Continents 2011

CONTINENTS	POPULATION(in	DENSITY
Asia	4216	78
Europe	740	51.5
North America	546	12.3
South America	396	28
Australia	37	2.7
Africa	1051	25
World	6986	13.3

Geographers have been making more frequent use of the concept of density of population. It is a simple concept of relating population size to the land area with a view to assessing crudely the pressure of population upon the resources of the area. Thus, it is a measure of the incidence of population concentration and is generally expressed in terms of persons per square km or per square mile of land area rather than of gross area (land and water).

D=P/A, where P=Population

A=Area per sq km of land.

2.6.1. Types of Densities

Geographers, by way of manipulating numerator or denominator have derived various types of densities having a varying degree of utility in different situations. The object has been to arrive at a better understanding of population –resource relationship. These are "**arithmetic density**", "**physiological density**" or "**nutritional density**", "**agricultural density**", "**economic density**" etc.

Arithmetic density as suggested by Glenn.T.Trewartha is the simple ratio between total population and total land area and expressed in terms of persons per unit of area. It is a good measure to gauge the pressure of population upon agricultural resources in an agrarian economy. In computing **agricultural density** only the agricultural population is related to the total cultivable area. Therefore agricultural density is expressed in terms of agricultural population per unit of cultivable area. More meaningful densities have been obtained by relating size of population to the area under cultivation. **Nutritional** or **physiological density** is the ratio between total population and total cultivated area and is expressed in terms of persons per square km of cultivated land. Here uncultivated land has been consciously excluded to arrive at a better man-land ratio. This ratio is particularly significant for agrarian economies in the developing world. But this type of calculation has serious drawbacks. Firstly it assumes that all cultivated land is of equal quality. Secondly, it considers uncultivated as unproductive. Thirdly, it neglects the fact that non arable land may be put to diverse uses which in turn might yield enormous economic returns. **Economic density** is considered as a ratio between requirement of population and resources made available to it by production in the area it occupies.

It is calculated by the formula

ED=NK/SK' where N is no. of inhabitants

K' is per capita quantity of requirement

S is area in sq .km

K is quantity of resources produced/km^2

All the three types of densities, wherever data permitted have been computed and represented cartographically by geographers. However, arithmetic density or general density is much preferred over the other two types due to availability of data. It is very difficult to study population on a micro scale without the use of the concept of density.

2.6.2. Density of Population in India

Density of population in India is not uniform; it varies from state to state. This depends on several factors. In states where climate is congenial density is more than in other states which have extremes of climate. The Indo Gangetic plain is the most densely populated part of the country but here too density lessens as one moves from east to west along the Ganges due to decrease in rainfall. The northern plains of Bihar are subjected to annual floods but these floods also deposit large tracts of alluvium. Hence these are the most fertile lands and much in demand for human settlements. Along with physical factors, socio economic and demographic factors too play an important part in influencing density of population in India. Those areas that are well connected or more accessible attract more people and therefore appear to be densely populated.

Some of the typical characteristics of India's population and its distribution that carry wide range political, social and economic implications both at national and international levels include huge population base, ethnic multiplicity, rural bias and unevenness of distribution. In its distribution Indian population has an overwhelmingly rural bias. Nearly three fourth of the population lives in the countryside in agglomerated settlements and it is only in Kerala and the Himalayas that dispersed settlement occur (Spate and Learmouth, 1954,p198). Unevenness of distribution is another feature of India's population. While sparsely populated districts are confined largely to interior heartland and the Himalayas, the crowded districts are largely confined to the alluvial tracts.

Population Density in Different States of India-2011

State	Population	Area(in sq.km)	Density(people/sq.km)
Uttar Pradesh	199581520	240928	828
Maharashtra	112372972	307713	365
Bihar	103,804,637	94163	1102
West Bengal	91347736	88752	1030
Andhra Pradesh	84665533	275045	308
Madhya Pradesh	72597565	14308245	236

TamilNadu	**72138958**	**130058**	**555**
Rajasthan	**68621012**	**342239**	**201**
Karnataka	**61130704**	**191791**	**319**
Gujarat	**60383628**	**196024**	**308**
Orissa	**41947358**	**156707**	**269**
Kerala	**33387677**	**38863**	**859**
Jharkhand	**32966238**	**79714**	**414**
Assam	**31169272**	**78438**	**397**
Punjab	**27704236**	**50362**	**550**
Chhatisgarh	**25540196**	**135191**	**189**
Haryana	**25353081**	**44212**	**573**
Jammu & Kashmir	**12548926**	**222236**	**56**
Uttrakhand	**10116752**	**55673**	**123**
Tripura	**3671032**	**10486**	**350**
Meghalaya	**2964007**	**22429**	**132**
Manipur	**2721756**	**22327**	**122**
Nagaland	**1980602**	**16579**	**119**
Goa	**1457723**	**3702**	**394**
Arunachal Pradesh	**13826111**	**83743**	**17**
Mizoram	**1091014**	**21081**	**52**
Sikkim	**607688**	**7096**	**86**

Source: Census of India, 2011

The whole of North India stretching from Jammu and Kashmir in the West upto Arunachal Pradesh in the East has the Himalayan ranges and the Trans Himalayan mountain ranges. They are inaccessible, forested, with harsh climate and therefore uninhabitable. Population is concentrated mostly in plains formed by rivers and coastal plains. As a result states like Bihar, Uttar Pradesh and West Bengal have highest density of population. Kerala, in the Malabar coastal region gets sufficient rainfall from South West monsoon which help to boost up the agricultural produce of the state. The economy of all the above mentioned states is based on agriculture and being endowed with a long growing season indirectly helps in fostering huge population base. Apart from physiographic reasons, demographic factors like high birth rate is responsible for huge concentration of population in Bihar and Uttar Pradesh and migration in the form of cross border infiltration is responsible for the huge influx of population in West Bengal. Other reasons for high birth rate may be sociological as in case of Muslims and Christians who do not believe in practicing family planning measures.

This leads to high birth rate and therefore higher concentration of population. Political disturbance often leads to large scale out migration of population in certain areas thereby inducing low density of population.

2.7. SUMMARY:

Population Geography is a well established branch of Human Geography. The concept of population change or growth of population is often used to connote the change in the number of inhabitants of a territory during a specific period of time, irrespective of the fact whether change is positive or negative. Although the rapid growth of the world's population over the past one hundred years results from a difference between the rate of birth and the rate of death it reminds geographers that population characteristics are a key ingredient in the character of places. If we look at the population statistics of our country we find that after independence we almost added a few India in terms of population. Population explosion around the world is causing severe resource depletion and environmental degradation. Decline in the death rate, rise in the birth rate, migration, lack of education are the main causes of growth of population. The density of population is defined as the number of persons per square kilometer. The population density of India has gone up to 382 persons per square kilometre in 2011 from 325 persons per square kilometre in 2001.

2.8. CHECK YOUR PROGRESS/ EXERCISE

1.   **True and false**

a. In population geography Fertility refers to the occurrence of death.

b. The fall in death rates that is decline in mortality rate is one fundamental causes of growth of population.

c.   Medicines of today can enhance the reproductive rate in human beings

d.   Rise in amount of Oxygen emissions leads to global warming. e. High growth of population leads to employment.

2.   **Fill in the blanks**

a. Rise in _____ gives rise to crime.

b. _____ the masses is the first step to control high growth of population.

c. The distribution of population all over the world is not ubiquitous as there are vast _____ sparities.

d. Those areas fit for human habitation or those occupied by human settlements have been termed_____ .

e. _____ is by far the most populous continent.

3.   Multiple choice question

a.   The aftermath of partition in 1947 and the subsequent war in 1971 saw people from Bangladesh settling down in

 i.   Dandakaranya

ii.   Assam

iii.   Patna

b.   Illiteracy is an important cause of growth of population because

i.   those lacking education fail to understand the need to procure food for growth of population.

ii.   those lacking education fail to understand the need to prevent excessive growth of population.

iii. those lacking education fail to understand the need to prevent excessive growth of poverty.

c.   Landforms influence the distributional pattern of population

i.   both at macro and micro level

ii.   only at macro level

iii. only at micro level

d.   The Rann of Kutch region of Kathiawar peninsula continues to remain relatively less densely populated

i.   mainly due to the conditions of heavy rainfall.

ii.   mainly due to the conditions of poor crop production.

iii.   mainly due to the conditions of poor drainage

e.   Asia's densest human habitations are found in areas

 i.   influenced by the high temperature.

ii.   influenced by the monsoon.

iii.   influenced by the draught.

4.   **Answer the Following Questions**

1. Discuss the causes and effects of high growth of population.

2. Explain the factors affecting the distribution of population in the world.

3.   Write a note on density of population in India.

4. Write a short note on remedies to control the growth of population.

2.9. ANSWERS TO THE SELF LEARNING QUESTIONS.

1.a. false, birth

1.b.true

1.c.true

1.d. false, CO_2

1.e. false, unemployment

2.a. unemployment

2.b. Educating

2.c. regional

2.d. "ecumene"

2.e. Asia

3.a.i.

3.b .ii.

3.c.i

3.d. iii.

3.e.ii

2.10. TECHNICAL WORDS:

*   **Population Growth-**An increase in the number of people that reside in a country, state, county, or city

*   **Distribution of population-**the arrangement or spread of people living in a given area according to variables such as age, race, or sex

*   **Density of population-**is the number of people per unit of area

2.11. TASK

1. In a world map mark the continent having highest density of population.

2. In a chart show the causes of growth of population.

3. In a chart show the effects of growth of population.

2.12. REFERENCES FOR FURTHER STUDY

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3

THEORIES OF POPULATION GROWTH

After going through this chapter, you will be able to understand the following features:

Unit Structure

3.1 Objectives

3.2 Introduction

3.3 Subject discussion

3.4 Demographic Theories

3.5 Summary

3.6 Check your Progress/Exercise

3.7 Answers to the self learning questions

3.8 Technical words and their meaning

3.9 Task

3.10 References for further study

3.1. OBJECTIVES

By the end of this unit you will be able to –

• Understand the Demographic Transition Theory

• Know about Malthus Theory

• Understand the Karl Marx Theory

3.2. INTRODUCTION

• In the previous two chapters we have studied the definition, nature, scope and importance of Population Geography, its relation with other Social Sciences along with historical development of the same. The Population Growth, Distribution and Density as well as Zones of density of population in world have also been learnt earlier. In this chapter we are going to learn Demographic Theories such as Demographic Transition Theory, Malthus Theory and Karl Marx Theory.

3.3. SUBJECT-DISCUSSION

Population geography is a comparatively recent phenomenon and an independent sub-field of human geography. Scholars and intellectuals have discussed the question of population since times in memorial. Very often their views have differed, especially as they related to the size and

growth of human population. A large and rapidly growing population has sometimes being considered to be desirable as a source of the nation's strength and wealth and as an essentially useful factor underline technological development. A population theory has emerged only in the eighteenth century when the well-known work of Thomas Malthus was published. Since then, impressive contributions have been made to the population theory. The theories can be classified according to their age into three categories that is Pro Malthusian, Malthusian and Post Malthusian theories.

3.4. DEMOGRAPHIC THEORIES

3.4.1. Demographic Transition Theory

In 1929, Warren Thompson first suggested that a co relationship exists between declining birth rate and economic growth but it was due to the cumulative efforts of Thompson (1929), Notestein (1945) and Blacker (1947) that the theory of demographic transition or of population stages was propounded. W.S. Thomson and F.W. Notestein based their statements on the trends in fertility and mortality being experienced by Europe, America and Australia. The theory postulates a particular pattern of demographic change from a high fertility and high mortality to a low fertility and low mortality when a society progresses from a largely rural agrarian society to a dominantly urban, industrial and literate society. To put it simply, high birth rate coupled with high death rate represents an agrarian society with a backward economy, while high birth rate with low death rate represents a transitional phase that is the beginning of industrial development. Likewise low birth rate and low death rate represents modern society that is economically stable while low birth rate with very low death rate signifies an economically stable society on the threshold of instability. During this course of progression, all societies experience an intermediate stage when there occurs a wide gap between fertility and mortality giving rise to not only huge increments in population numbers but also to significant changes in their demographic structure. The demographic transition theory is characterized by copious stages and Notestein suggested the existence of three stages in transition. Beaujeu-Garnier (1966) too, categorized the Demographic Transition Theory into **three phases**. Beaujeu-Garnier's three phases of Demographic Transition may be explained as follows:

a. The first phase is that of high birth rate and high death rate where the growth rate of population is marginal.

b. The second phase is characterized by rapidly increasing population initially due to fall in death rate while birth rate remains high followed by gradual decrease in growth rate when birth rate begins to decline along with decline in death rate.

c. The third phase is characterized by fall in growth rate due to rapidly falling birth rate and death rate.

Stage	Birth rate	Death rate	Growth rate	Economy
I) Pre industrial	High	High	Static to Low	Agrarian
II) Early Western	High	Declining	High	Mixed
III) Modern Western	Low to Medium	Low	Low to Medium	Industrial society and mixed economy

Some geographers have divided the Demographic Transition into **four stages**. In the first stage both birth rate and death rate are high. Here the growth is nominal. The second stage has high birth rate and low death rate leading to high growth rate. Developing economies like India are in this stage. The third stage is characterized by stable population growth. It is also known as the plateau stage. Spain, Italy etc. fall in this stage where both birth rate and death rate is low. The fourth stage is one of declining population growth where death rate is low but birth rate is very low and sometimes even negative. Countries like Sweden, Denmark and Germany fall in this category. Denmark, Japan, Norway and Germany have very low growth rate. It is notable that these countries do not have joint family system.

The original theory of demographic transition was subsequently refined and reformulated with the passage of time. One of the most accepted versions is C.P. Blacker's **five stages** of population growth. The theory of demographic transition explains the changes in birth rate and death rate on the growth rate of population. According to E.G. Dolan, "Demographic Transition refers to a population cycle that begins with a fall in death rate, continues with a phase of rapid population growth and concludes with a decline in birth rate."

The theory of demographic transition is based on the actual population trends of the advanced countries in the world. This theory states that every country passes through different stages of population development. According to C.P. Blacker, they are: (1) high stationary phase marked by high fertility and mortality rates (2) the early expanding stage marked by high fertility and high but declining mortality (3) the late expanding phase marked by declining fertility but mortality declining more rapidly (4) the low stationary phase marked with low fertility balanced with equally low mortality, and (5) the declining phase with low fertility, low mortality and an excess of deaths over births.

These stages are explained in the following figures. In the figures the time for different stages is taken on the horizontal axis and annual birth and death rates on vertical axis. The curves BR and DR relate to birth rate

and death rate respectively. P is the population curve in the lower portion of the figure.

First Stage

In this stage the country is backward and is characterized by high birth rate and death rate with the result that the growth rate of population is low. People mostly live in rural areas and their main occupation is agriculture which is in a state of backwardness. There are a few simple, light and small consumer goods industries. The tertiary sector is underdeveloped. Large family is regarded as a necessity to augment low income. Children are considered as assets to the family and the system of joint family system provides employment to all children in keeping with their ages.

Along with high birth rate death rate is also high due to non –nutritional food, lack of medical services and lack of any sense of cleanliness and hygiene. Mortality rate is the highest amongst children and among women belonging to the child bearing age. According to Blacker, this stage continued in Western Europe approximately upto1840 and in India and China upto1900. This is illustrated in figure 1 by the time period HS (High Stationary) stage and by the horizontal portion of the population P curve in the lower portion of the figure.

Second Stage

In the second stage, the economy enters the phase of economic growth. Agricultural and industrial productivity increases, and means of transport develop. There is greater mobility of labour. Education expands and incomes increase. People get more and more and better quality of food. Medical and health services are expanded and modern drugs are introduced. All these factors bring down the death rate while birth rate is almost stable. People have no inclination of bringing down birth rate because with increased employment opportunities children are able to supplement the family income. Also with improvements in living standards and dietary habits of people life expectancy also increases. Family planning measures are not adopted due to social customs institutions, customs and beliefs. As a result birth rate continues to remain high.

With the decline in the death rate and no change in birth rate, the population increases at a rapid rate. This leads to *population explosion*. This is an Early Expanding stage (EE) in demographic transition when the population growth curve is rising from A to B as shown in fig (B). According to Blacker, 40% of the world's population was in this stage up to 1930. Many countries of Africa are still in this stage.

Third Stage

In this stage, birth rate starts declining accompanied by death rates declining rapidly. With better medical facilities, the survival rate if children increases. People are not willing to support large families. The

country is burdened with growing population. People adopt family planning techniques to limit the size of family. Birth rates begin to decline especially in urban areas but death rate declines more rapidly. Growth in health services brings down death rate and also increases life expectancy. With death rates declining rapidly, population grows at a diminishing rate. This is Late Expanding stage as shown by LE in fig 9.1(A) and BC in fig 9.1 (B). According to Blacker, 20% of the world's population was in this stage in 1930.

Fourth Stage

In this stage the fertility rate declines and tends to equal the death rate so that the growth rate of population is stationary. As growth gains momentum and people's level of income increases, their standard of living rises. The leading growth sectors expand and lead to an expansion in output in the other sectors through technical transformation. Education expands and permeates the entire society. People discard old customs, dogmas and beliefs and develop an individualistic approach towards life. Men and women marry late and plan their families using family planning techniques. All this tends to reduce the birth rate which, with already low death rate brings a decline in the growth of population. Countries like Denmark, Japan, and Norway, Germany fall in this category where low birth and death rate have led to a compounded effect of low growth rate. These countries have nuclear family system and adult female population is more than male population. It may be mentioned here that most advanced countries of the world are passing through this Lower Stationary (LS) stage of population development as shown in Fig (A) and CD in Fig (B). Population growth is curtailed and there is *zero population growth*.

Fifth Stage

In this stage, death rate exceeds birth rate and population growth declines. This is shown as D in fig (A) and the portion DP in fig (B). A continual decline in birth rate when it is not possible to lower death rates further in the advanced countries leads to "declining stage" of population. The existence of this stage in any developed country is a matter of speculation, according to Blacker. However, France appears to approach this stage.
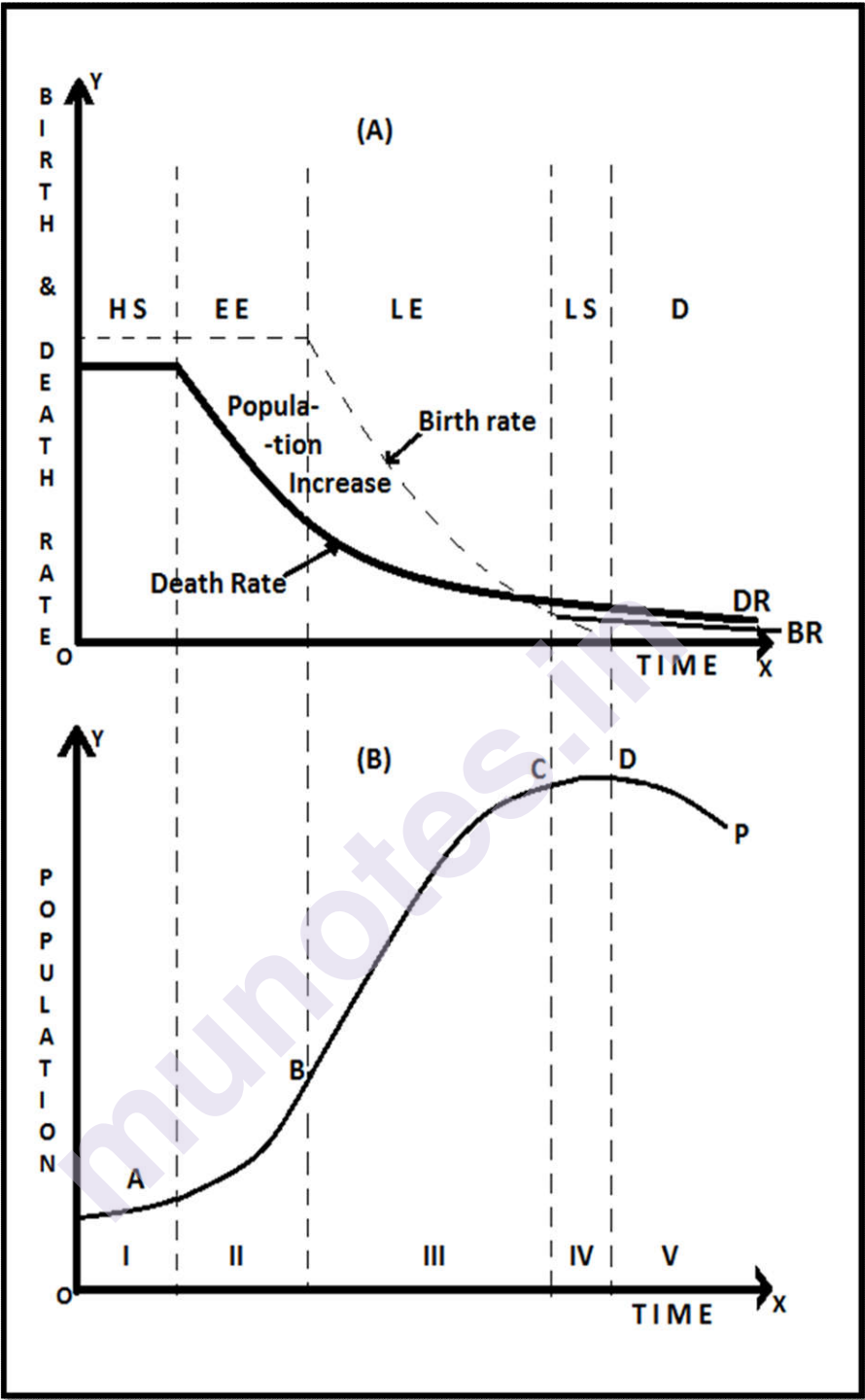
Fig - 3.1

The theory of demographic transition is the most acceptable theory of population growth. It does not lay emphasis on food supply like the Malthusian theory, nor does it develop a pessimistic outlook towards population growth. It is also superior to the optimum theory which lays an exclusive emphasis on the increase in per capita income for the growth of population and neglects other factors that influence it. The biological theories are also one sided because they study the problem of population growth simply from the biological angle. Thus the demographic

transition theory is superior to all the theories of population because it is based on actual population growth trends of the developed countries of Europe.

However, this theory is not free from **criticisms**. Critics point out that the sequences of demographic stages have not been uniform. For example, in some East and South European countries, and in Spain particularly, fertility rates declined even when mortality rates were high. But in America, the growth rate of population was higher than in the second and third stage of demographic transition. Secondly, the assumption that birth rate declined initially in urban areas has not been supported by empirical evidence. Countries like Sweden and France with predominantly rural population experienced decline in birth rates to the same extent as countries like Great Britain with predominantly urban population. Thirdly, the theory fails to give the fundamental explanations of decline in birth rates in Western Countries. Infact, the causes of decline in birth rate are so diverse that they differ from country to country. Thus, according to critics, the demographic theory is a generalization and not a theory.

The theory of demographic transition is equally applicable to the developing countries of the world. African countries are still in the first stage while India has entered the third stage where death rate is declining faster than birth rate due to better medical facilities and family welfare schemes of the government. But the death rate is declining very slowly with the result that the country is experiencing population explosion. It is on the basis of this theory that economists have developed economic-demographic models so that developing countries should enter the fourth stage. Thus this theory is universally acceptable.

The scheme of describing demographic transition serves a useful purpose because it describes in a simple manner the historical trends of population growth with the help of a classification scheme. Its value as a demographic theory, and its ability to predict future events however have been challenged. Yet, it remains an important theory in the study of population geography.

3.4.2 Malthusian Theory of Population

Malthusian Theory is the most well-known theory of population growth that argues that rapid population growth would outpace food production leading to social chaos. Thomas Robert Malthus was the first economist to propose a systematic theory of population. He articulated his views regarding population in his famous book, *Essay on the Principle of Population* (1798). His collection of empirical data supported his thesis. He incorporated his researches in the second edition of his book published in 1803. Malthus modified some of his views in this edition but essentially his original thesis did not change. Malthus revolted against the prevailing optimism shared by his father and Godwin that a perfect state could be attained if human restraints were removed. Malthus' objection was that the pressure of increasing population on the food supply would destroy

perfection and there would be misery in the world. Malthus was severely criticized for his pessimistic views which led him to travel in the continent of Europe to gather data in support of his thesis.

In Essay on the Principle of Population, Malthus proposes the principle that human populations grow exponentially (i.e., doubling with each cycle) while food production grows at an arithmetic rate (i.e. by the repeated addition of a uniform increment in each uniform interval of time). Thus, while food output was likely to increase in a series of twenty-five year intervals in the arithmetic progression 1, 2, 3, 4, 5, 6, 7, 8, 9, and so on, population was capable of increasing in the geometric progression 1, 2, 4, 8, 16, 32, 64, 128, 256, and so forth. This scenario of arithmetic food growth with simultaneous geometric human population growth predicted a future when humans would have no resources to survive on. To avoid such a catastrophe, Malthus urged controls on population growth.
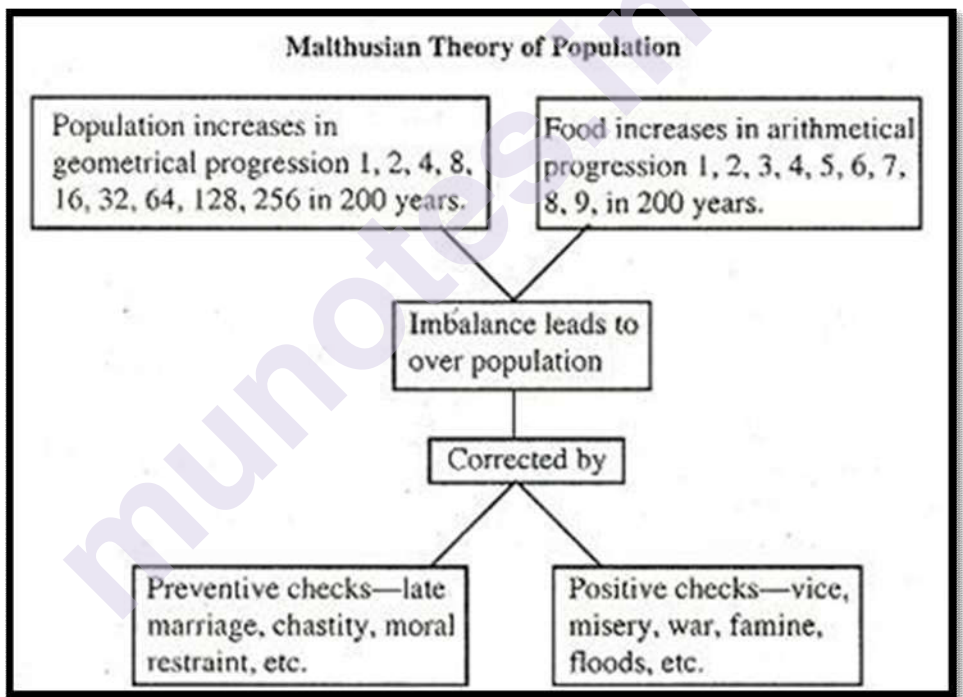
Malthus' doctrine is illustrated below.

Fig - 3.2

According to Malthus because of this unequal power between production and reproduction, "population must *always* be kept down to the level of the means of subsistence." The key word in the principle is "always."

On the basis of a hypothetical world population of one billion in the early nineteenth century and an adequate means of subsistence at that time, Malthus suggested that there was a potential for a population increase to 256 billion within 200 years but that the means of subsistence were only capable of being increased enough for nine billion to be fed at the level prevailing at the beginning of the period.

According to Malthus, there are two types of **"checks"** that can reduce a population's growth rate. **Preventive checks** are voluntary actions people can take to avoid contributing to the population. Due to his religious beliefs, he supported the concept he called **moral restraint**, in which people resist the urge to marry and reproduce until they are capable of supporting a family. This often means waiting until a later age to marry. He also wrote that there are 'immoral' ways to check a population, such as vices, adultery, prostitution, and birth control. Due to his beliefs, he favored moral restraint and didn't support the latter practices.

He saw **positive checks** to population growth as being the causes that contributed to the shortening of human life spans. Malthus classified positive checks into two categories, the first which were brought by natural causes. Here he spoke of famine, disease, war and poor living and working environments. The other being that which mankind brought upon him. He explicitly demanded artificial means of birth control and suggested as an alternative that birth rate be decreased through preventive measures such as late marriage, self-restraint and abstinence from sex.

However, in all societies, some of these checks are in constant operation although in varying magnitudes of effectiveness. Malthus believed that despite these checks, the inability of increased food supply to keep abreast of population increase always results in some kind of a situation of overpopulation.

Malthusian theory has been explained with the help of the following graphs:

Malthus said that Population grows faster than food supply because according to him food supply can only grow arithmetically, for example, 1 then 2 then 3-4-5-6-7-8 but, population grows geometrically 2-4-8-16-32-64.Consequently, there is no way food supply can keep up with population growth.
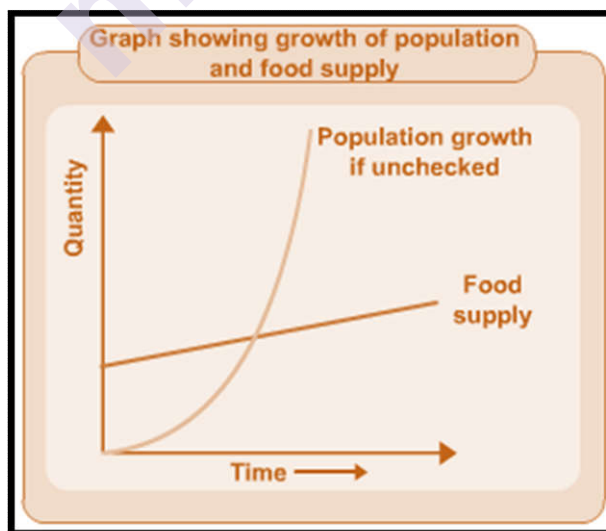
Fig - 3.3

Population grows exponentially, for example, 1-2-4-8-16-32-64.

Food supply grows arithmetically, for example, 1-2-3-4-5-6.

Therefore, population will inevitably exceed food supply.

He then went on two say that there are two possible outcomes.

Firstly, he said population could exceed food supply only to be positively "checked" (reduced) by famine, war, and disease.

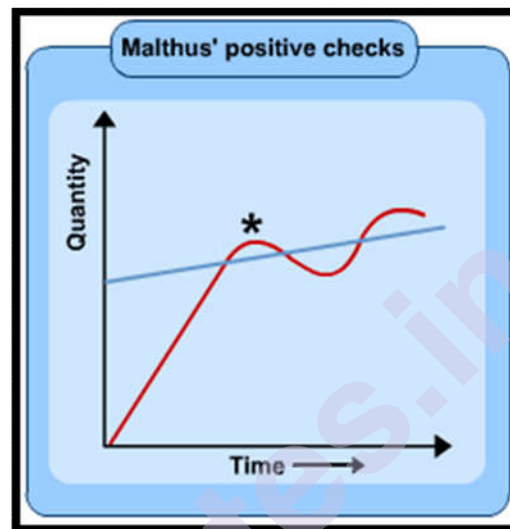**Fig - 3.4**

- Population exceeds food supply and is kept in check by war, famine, or disease. It then drops below the food supply. As the population recovers, so the cycle continues. Alternatively, slow population growth will be within the limits of food supply. Malthus called these negative checks. These negative checks would include later marriages and abstinence from sex.
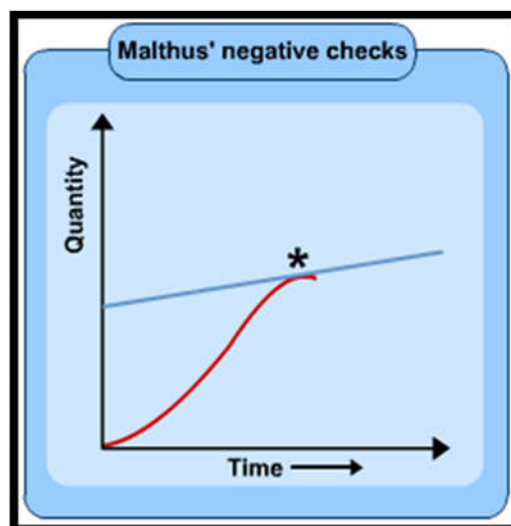

Fig - 3.5

* Here, as population starts to approach the limits of the food supply, so growth slows. Malthus says this slowing is caused by delayed marriage.

Criticism

The Malthusian theory of population has been the subject of a keen controversy. The following are some of the grounds on which it has been criticized: —

a.   It is argued that population has rarely grown in geometrical proportion and means of production have rarely multiplied in arithmetic progression. He underestimates the possibilities of increased food supply. There is no ground for making the general assertion that as population increases from two to four, food supply can increase only from two to three. Population has failed to grow as rapidly as predicted by Malthus and production has increased tremendously because of the rapid advances in technology. As a result, living standards of the people have risen instead of falling as was predicted by Malthus.

b.   Malthus overemphasized the 'positive' checks and did not visualize the role of 'preventive' checks like contraceptives and family planning. Neo-Malthusists argued for the adoption of birth control within marriage. Human inventions in the fields of birth control, health, nutrition and agriculture have helped to a great extent to strike a balance between human reproduction and food supply. The civilized world has kept the population in check. It is, however, to be regretted that population has been increasing at the wrong end. The poor people, who can ill-afford to bring up and educate children, are multiplying, whereas the rich are applying brakes on the increase of the size of their families.

c.   Malthus was also severely criticized for ignoring the role of changing technology and the consequent transformation in socio-economic set-up of a society. He did not fully appreciate the extent to which improved agricultural technology and crop fertilization could sustain large population.

Malthusian theory has been severely criticized on several grounds. Yet, despite its numerous weaknesses it has been revived time and again. The theory was rejected in the 1900 but was revived once again in the second decade of the twentieth century.

3.4.3. Karl Marx's Theory of Population

Karl Marx (1818-1883) was a German philosopher and founder of modern communism. His theory of population was christened as theory of surplus population. He did not separately propose any theory of population, but his surplus population theory has been deduced from his theory of communism. Not only was he one of Malthus's main nineteenth-century critics, but his own "law of population" is interesting in its own right. Marx opposed and criticized the Malthusian theory of population.

According to Marx, population increase must be interpreted in the context of the capitalistic economic system. A capitalist gives to labour as wage a small share of labour's productivity, and the capitalist himself takes the lion's share. The capitalist introduces more and more machinery and thus increases the surplus value of labour's productivity, which is pocketed by the capitalist. The surplus is the difference between labour's productivity and the wage level. A worker is paid less than the value of his productivity.

By installing labour saving machinery a capitalist wants to have maximum surplus value out of that. As a result unemployment increases, wage declines and poverty increases and, consequently, a reserve army of labour is created. This reserve puts pressure on those who are employed by making them submit to over work and a low level of wages. The numbers in this reserve army fluctuate with business or trade cycles. During times when business is depressed, workers are laid off and eventually profits begin to rise again. Thus business (capitalism) benefits by exploiting labour. While wages are kept low everywhere, the members in this surplus labour army are destined to have the lowest wages. Under these circumstances, as the wage level goes down further, the poor parents cannot properly rear their children on account of their poverty and a large part of the population becomes virtually surplus. Poverty, hunger and other social ills are the result of socially unjust practices associated with capitalism. Thus the working class produces wealth (capital), but because there is a constant oversupply of labour, it will never share in much of the wealth it produces. Since this means that most working people are kept poor, their birth rates will remain high and the labour surplus will continue to grow. Marx held that poverty and unemployment were not due to increased population, but on due to capitalist system which failed to provide jobs. Surplus population was the consequence for real production and uneven distribution of wealth and for providing jobs to only few persons.

Population growth, according to Marx, is therefore not related to the alleged ignorance or moral inferiority of the poor, but is a consequence of the capitalist economic system. Marx points out that landlordism, unfavourable and high man-land ratio, uncertainty regarding land tenure system and the like are responsible for low food production in a country. Only in places where the production of food is not adequate does population growth become a problem.

Marx's Response to Malthus' Thesis:

The debate on the Malthusian theory is continuing till today. While his theory is supported by economists such as J.S. Mill and J.M. Keynes, others, especially, sociologists, have argued against it. According to them, an eternal law of nature as propounded by Malthus is not responsible for the widespread poverty and misery of the working class people. This burden lies on the misconceived organization of society.

Karl Marx argued that the unequal distribution of the wealth and its accumulation by capitalists is the reason behind starvation and it has nothing to do with the population. Population is dependent on economic and social organization. The problems of overpopulation and limits to resources, as enunciated by Malthus, are inherent and inevitable features associated with the capitalist system of production.

Marx opined that food production could not increase rapidly. This idea was also debated later when the application of new technology gave farmers much greater yields. French sociologist E. Dupreel (1977) argued that an increasing population would spur rapid innovation and development to solve problems, whereas a stable population would be complacent and less likely to progress.

During the depression of the 1930s, the debate changed somewhat because the birth rate fell sharply in industrial (western) nations. Some predicted that human species would die out. Schemes were proposed to encourage families to have more children by giving them allowances for each child born. The birth rate rose sharply after World War II, especially in the underdeveloped nations like India, Africa and Bangladesh. Birth control programmes were instituted to control the population so as to eliminate starvation.

Critical Evaluation:

It is true to great extent that in capitalist society there is surplus population on account of unemployment. But it is not correct to presume that under socialist system there will be no need to check population growth at any stage. Even in communist countries population growth is checked on the plea that no mother should have more children so that her health does not deteriorate. In erstwhile USSR factory workers were provided contraceptives in their factories so that birth rate was kept low.

If economic inequality is the main cause of birth rate then in these countries these rate should not differ.

In his theory of population, Marx has criticized Malthus but his criticism does not appear to be very reasonable. Lewis and Thompson opined, "There can be no question of sincerity of Marx's belief in the evils of capitalism as the sole basis of poverty. Marx must have had deep-seeded doubts that Malthus views could be sufficiently disposed of by an appeal to facts and reason."

The Marxist theory is based on the idea of history of class struggle. Those who do not believe in Marxist theory of change would also not accept his theory of population. Moreover, the population reality of today is complex and in many important aspects different from what it was during the times of Malthus and Marx. The two lived in an age in which both birth and death rates were high (death rates had only begun to fall in the industrially advanced countries) and the rate of population growth was very low. National policies of today are pragmatic and responsive to new realities.

3.5 OPTIMUM THEORY OF POPULATION

The Optimum Theory of Population appeared as a reaction to the Malthusian theory.

Criticizing the approach of the Malthusian Theory of Population, modern economists Edwin Cannan and Carr Saunders of London School of Economics have developed a new theory known as Optimum Theory of Population.

It is also called modern theory of population. In recent years, Prof. Robbins, Dalton and Carr- Saunders have refined and polished the theory and put it in a more presentable form. This theory is an improvement over the Malthusian Theory.

Statement of the Theory:

The founders of the theory state it as "Given the natural resources, stock of capital and the state of technical knowledge, there will be a definite size of population with the per capita income. The population which has the highest per capita income is known as optimum population".

Optimum Population:

The economists like Carr Saunders considered 'optimum population' as that which produces maximum welfare. On the other hand, Prof. Cannan defined this theory in terms of 'return to labour'. He remarked, "Knowledge and circumstances remaining the same, there is what may be called maximum return when the amount of labour is such that both an increase and decrease in it would diminish proportionate return." Similarly, Bounding has rightly observed, "Optimum population is that at which standard of living is maximum.

1. Under Population:

If the actual population in a country is less than the optimum or ideal population, there will not be enough people to exploit all the resources of the country fully. Thus, the population and the per capita income will be lower. In other words, if the per capita income is low due to too few people, the population is then under population.

2. Over Population:

If the actual population is above the level of optimum population, there will be too many people to work efficiently and produce the maximum goods and the highest per capita income. As a result, the per capita income becomes poorer than before. This is the stage of over population. In other words, if the per capita income is low due to too many people, the population under these circumstances would be over population.

Assumptions:

The optimum theory is based on two important assumptions:

1. The proportion of working population to total population remains constant as the population of the country increases.

2. As the population of a country increases, the natural resources, the capital stock and state of technology remain unchanged.

Diagrammatic Representation of the Theory:

In the diagram I volume of population is shown along OX axis and income per head along OY-axis. OS is the income per head which gives only subsistence wage rate to the population. This level of wages puts the minimum limit to the income per head.

The subsistence income per head can prevail with two levels of population:

1. When population is too small to exploit the country's resources with maximum efficiency. This is the level of OA population.

2. When population is too large and the efficiency falls to give only a subsistence income to the labour force. This is the level of OC population.

OB shows optimum population which uses the available resources to give itself the maximum income per head. For a population less than OB, income per head increases with the increase in population. For a population higher than OB, income per head can increase with the decrease in population through preventive checks.

The dotted curve in the diagram shows the level of income per head with an improvement in technology or expansion of foreign trade. This will help to raise the income curve and generate population growth until wages are once again equal to subsistence level.
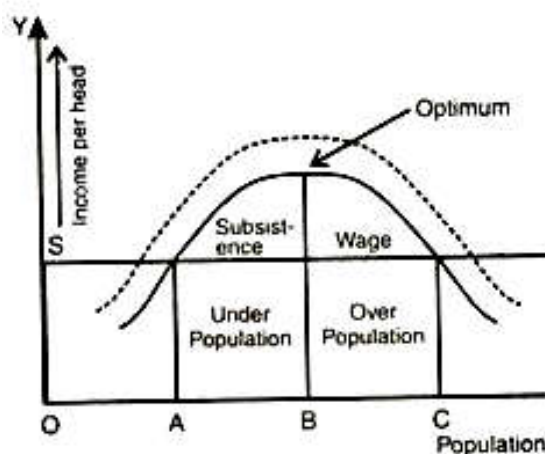

Fig. 1

The critics have criticized the theory on the basis of the following grounds:

1. Difficult to Determine Optimum Population:

It is extremely difficult to know the optimum population of a country at any time. Many factors like technical knowledge, stock of capital, per capita income and natural resources etc. have to be taken into account for this purpose.

2. A Static Theory: The optimum theory is criticized as a static short period theory. It ignores changes in natural and human resources which affect per capita income. This theory is also silent about the important questions of the determinants of population growth.

3. Neglects Biological and Sociological Factors: Some critics also argue that this theory has not taken into account the biological and sociological factors which govern the size and growth of population. Strictly speaking, this theory is not a theory of population. It simply explains the state of population with reference to per capita income.

4. Not a Realistic Theory:

It is pointed out that two assumptions on which the theory has been based, are not realistic. So, the practical value of this theory is reduced. In fact, natural resources, technical knowledge and production methods are generally changeable.

5. Only Economic Factors Considered:

The critics point out that the theory takes into account purely economic factors which determine the optimum size of the population of a country. This is one side of the picture. We should also consider the social, political and other non-economic factors.

6. Not Practicable: The optimum theory is not practicable as it is not fixed. Thus, it is unable to guide to the formation of any policy. Prof. Robbins says that this theory is the most sterile idea of economics.

7. Distributional Aspect Neglected:

The theory neglects the distributional aspect of the problem. This theory considers simple population to income per head. This increase of population and national income cannot be useful to a country if the increased national income is not properly and equitably distributed among the various sections of the society. Therefore, realistic theory must account for income distribution as a factor in determining the optimum population.

Despite of so much criticism leveled against optimum theory, it is surely said that it is an improvement over Malthusian Theory. The optimum theory is an important landmark in the science of demography. It is valuable because it enables us to overcome the bogey of Malthusianism and give us a test of progress (in per capita income). But this theory is not

useful in social life due to its static nature. Thus, it is not a guiding principle to any economic policy. It requires to be re-casted in a dynamic setting for making it more successful.

3.6. SUMMARY:

With the help of the different demographic theories it has been easier to understand population growth. We must separate the rate of growth from the total numbers themselves to have a clear idea of the population growth. Down the ages the world population has continued to rise in number, the rate at which the population is growing has slowed.

Among several models for observing and predicting the world's population growth the most commonly accepted is the demographic transition model (DTM) which describes a progressive movement from high birth and death rates to low birth and death rates. The demographic transition theory argues with the advancement of society in its usage of technology, in every field from industry, healthcare to crop production, its birth and death rates shift. This has a direct impact on the population numbers and growth rates. Hence population growth is inextricably tied to a society's level of technology.

Malthus employed two different ratios in order to establish his argument, the first of which states that human population grows at a geometric rate. His second principle points to the difference between this geometric rate of growth for human populations and the arithmetic rate of food production, which means that with each generation, the food supply will only increase by the same set number.

Karl Marx rejected Malthusian theory completely as it did not fit in a socialist society. His belief lied in the system of capitalism and according to him capitalism has the capacity to produce food and other necessities. To Marx, in a capitalist society, production is controlled by the capitalist class. He opined that the unequal distribution of social and economic wealth undetermined production. His theory of population was named as theory of surplus population.

To conclude it may be said that these theories of population has been criticised and many of us do not belief them because the population reality of today is complex. Even it is different from what it was during the times of Malthus and Marx.

3.6. CHECK YOUR PROGRESS/ EXERCISE

1. **True and false**

a. Malthusian Theory is the most well-known theory of population growth that argues that rapid population growth would outpace food production leading to social chaos.

b. Low birth rate and low death rate represents modern society.

c. Beaujeu-Garnier categorized the Demographic Transition Theory into six phases.

d. Karl Marx (1818-1883) was a French philosopher and founder of modern communism.

e. In the first phase of Demographic Transition there is high birth rate and high death rate so the growth rate of population is marginal.

2. **Fill in the blanks**

a. Low birth rate with very _____ death rate signifies an economically stable society on the threshold of instability.

b. The second phase of Demographic Transition is characterized by rapidly increasing population initially due to fall in _____ rate while birth rate remains high followed by gradual _____ in growth rate when birth rate begins to decline along with decline in death rate.

c. Malthus said that population grows faster than food supply because according to him food supply can only grow _____.

d. Karl Marx's theory of population was christened as theory of _____ _____.

e. Marx opposed and criticized the _____ theory of population.

3. **Multiple choice question**

a. The third phase of Demographic Transition is characterized by
i. fall in growth rate due to rapidly falling birth rate and death rate.
ii. fall in death rate due to rapidly falling birth rate and death rate.
iii. fall in birth rate due to rapidly falling death rate and death rate.

b. Critics point out that the sequences of demographic stages have
i. been uniform.
ii. not been uniform.
iii. not been unstable.

c. With better medical facilities,
i. the survival rate of children increased.
ii. the survival rate of children decreased.
iii. the death rate of children increased.

d. Karl Marx argued that the reason behind starvation
i. is the equal distribution of the wealth and its accumulation by capitalists, and it has nothing to do with the population.
ii. is the unequal distribution of the food and its accumulation by socialists, and it has nothing to do with the population.
iii. is the unequal distribution of the wealth and its accumulation by capitalists, and it has nothing to do with the population.

e.   Critics argued that

i.   Malthus over emphasized the 'positive' checks and did not visualize the role of 'preventive' checks like contraceptives and family planning.

ii.   Malthus over emphasized the 'preventive' checks and did not visualize the role of 'positive' checks like contraceptives and family planning.

iii.   Malthus over emphasized the 'positive' checks and did not visualize the role of 'preventive' checks like food storage.

4.   Answer the Following Questions

1.   Discuss the Demographic Transition Theory in detail.

2.   Discuss C.P. Blacker's five stages of population growth.

3.   Discuss the criticism of Demographic Transition Theory.

4.   Define Malthusian theory of population.

5.   What is the Opinion of the Neo-Malthusians?

6.   Define Karl Marx's theory of population.

7.   Crticise Marx's theory of population.

8.   What is Marx's Response to Malthus' Thesis?

3.7. ANSWERS TO THE SELF LEARNING QUESTIONS

1.a.true

1.b.true

1.c.false, into three phases.

1.d. false, German

1.e. true

2.a. low

2.b. death, decrease

2.c. arithmetically

2.d. surplus population.

2.e. Malthusian

3.a.i

3.b.ii

3.c.i

3.d.iii

3.e.i

3.8. TECHNICAL WORDS:

1. **Birth rate**-the number of live births per thousand of population per year

2. **Death rate**- the number of deaths per one thousand people per year.

3. **Growth rate**-the rate at which something, in particular an economy or business, grows.

4. **Demographic Transition**- it refers to the transition from high birth and death rates to lower birth and death rates as a country or region develops from a pre-industrial to an industrialized economic system.

5. **Malthusian Theory**- population tends to increase at a faster rate than its means of subsistence and if it is not checked widespread poverty and degradation will result inevitably

6. **Karl Marx-** Born in Trier to a middle-class family was a Prussian-born philosopher, economist, sociologist, journalist, and revolutionary socialist.

3.9. TASK

1. In a chart show the three stages of Demographic Transition Theory.

2. In a chart write the criticism of Malthusian Theory.

3.10. REFERENCES FOR FURTHER STUDY

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4

MIGRATION

After going through this chapter you will be able to understand the following features:

Unit Structure

4.1.   OBJECTIVES

By the end of this unit you will be able to–

- Understand the definition of Migration

- Know about the types, causes and effects of Migration

- Understand the recent trend of Migration of Population in India

4.2. INTRODUCTION

In the earlier chapters we have already studied the definition, nature, scope and importance of Population Geography, and the relation it shares with other Social Sciences along with its historical development. The Population Growth, Distribution and Density as well as Zones of density of population in world have also been learnt in previous chapters. In the last chapter we learnt different Demographic Theories. Migration, its types, causes, effects and recent trend of migration of population in India are the main topic which will be studied in the following chapter.

4.3. SUBJECT-DISCUSSION

Migration in population geography generally refers to the movement of humans from one place to another. It has occurred as long as mankind has existed and has a connection with economic growth, poverty, human rights and many other global issues. Having many social and economic benefits migration is not free from challenges. It occurs when the perceived interaction of Push and Pull factors overcome the friction of moving. Human migration is a well known phenomenon. Migration and displacement affect societies around the world. People move in search of profit, protection and passage hence migration plays an important role in shaping the new lands politics, economies, and societies.

4.4. MIGRATION

4.4.1. Definition

Migration is a fact of life. Migration does not mean a short trip for pleasure or business nor does it mean shifting residence from one locality in a town to another. It means a permanent or at least for a considerable period of time departure for a place which is not just nearby. According to the Demographic Dictionary of United Nations, "Migration is such an event in which people move from one geographical area to another geographical area. When people leaving behind their place of residence go to live permanently in another area it is called migration."

4.4.2. Types of Migration

a. **Internal Migration**: Internal migration takes place within the administrative boundaries of a country. It may be a) inter district b) inter regional or c) interstate migration.

b. **International/External Migration**: External migration takes place outside the administrative boundaries of a country.

c. **Emigration**: When people leave one country to move to another country, for example if people from USA move in India it is termed as emigration

d. **Immigration**: When people from one country move permanently to another country, for example if people from India move to U.S.A, it is termed as immigration

e. **Population Transfer**: When a government forces a large group of people out of a region, usually based on ethnicity or religion it is called Population Transfer. This is also known as an involuntary or forced migration.

f. **Impelled Migration** (also called "reluctant" or "imposed" migration): Individuals are not forced out of their country, but leave because of unfavourable situations such as warfare, political problems, or religious persecution.

g. **Step Migration**: A series of shorter, less extreme migrations from a person's place of origin to final destination—such as moving from a farm, to a village, to a town, and finally to a city.

h. **Chain Migration**: Here there is a series of migrations within a family or defined group of people. A chain migration often begins with one family member who sends money to bring other family members to the new location.

i. **Return Migration**: Return migration is the voluntary movements of immigrants back to their place of origin. This is also known as circular migration.

j. **Seasonal Migration**: The process of moving for a period of time in response to labour or climate conditions (e.g., farm workers following crop harvests or working in cities off-season; "snowbirds" moving to the southern and south-western United States during winter).

- **People Who Migrate**

a. **Emigrant**: A person who is leaving a country to reside in another.

b. **Immigrant**: A person who is entering a country from another to take up new residence.

c. **Refugee**: A person who is residing outside the country of his or her origin due to fear of persecution for reasons of race, religion, nationality, membership in a particular social group, or political opinion.

d. **Internally Displaced Person (IDP)**: A person who is forced to leave his or her home region because of unfavourable conditions (political, social, environmental, etc.) but does not cross any boundaries.

e. **Migration Stream**: A group migration from a particular country, region, or city to a certain destination.

- **Theories of Migration**

Economists and sociologists have propounded several theories and constructed models of migration from time to time. The most accepted theory is Lee's theory of migration. **Everett Lee** in his "**A Theory of Migration***"* divides the factors that determine the decision to migrate and the process of migration into four categories.

a. **Factors associated with the place of origin**: They motivate people to leave their place of origin and move out and are better known as "**push**" factors.

b. **Factors associated with the area of destination**: These are attractive forces at the area of destination to which the proportion of selectivity migrants is high. According to Lee, "**pull**" factors are present in such areas.

c. **Intervening obstacles**: There are several intervening obstacles such as distance and transportation which increase migrant selectivity of the area of destination. Although these obstacles have lessened with advanced technology yet there still exist political factors or ethnic barriers that obstruct migration.

d. **Personal factors**: Lastly, it is the personal preference of the migrant which influences his decision to migrate. In fact, it is an individual's perception of pull and push factors which influences actual migration. He categories these forces into "**pluses**" and "**minuses**" respectively, plus representing "**pull**" factor and minus the "**push**" factor. In between them are "**zeros**" which balance the competing forces.
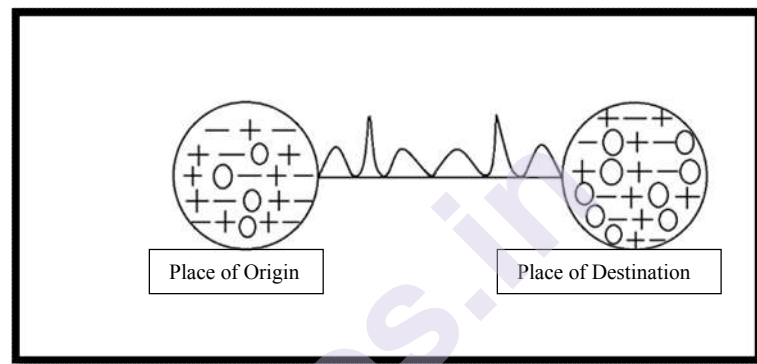
Fig 4.1

These are explained in Fig 1 where the first circle represents the area of origin and the second circle the area of destination. The sign "pluses' represents the forces that attract people to a place (pull factors) and that of "minuses" represent the forces that push people from the area (push factors). Zeros represent the indifference of the people towards migration. In between these forces are the intervening obstacles. According to Lee, it is the personal factors such as age, sex, race and education which along with the pull-push factors and intervening obstacles that determine migration.

4.4.3. Causes of Internal Migration

There are a number of causes which lead to the migration of people within a country. We explain them under pull and push factors.

Push factors: Push factors are those which push people to move from one place or region to another within a country. They include:

a. Lack of employment at the place of residence and moving out in search of jobs or/and better employment opportunities.

b. Low income

c. Shortage of land.

d. Poor quality of land.

e. Unequal distribution of land

f. Lack of modern facilities.

g. Lack of educational and training facilities.

h. Natural calamities like earthquakes, famines or floods

i. Fear of persecution by law.

j. Deteriorating law and order conditions leading to insecurity of life and property.

k. Discrimination on the grounds of race and religion.

l. Political victimization.

m. Breakup of Indian joint family system.

n. Prevalence of individualistic spirit in modern times.

Pull factors: Pull factors are those which attract or pull people from other areas or regions within a country. They include:

a. Large employment opportunities.

b. Health or educational facilities or both.

c. Favourable climate

d. Opportunities for development of trade and industry.

e. Access to means of transport and communication.

f. Political stability and personal security.

g. Presence of kin and relatives.

h. Absence of discrimination on the basis of race, caste, religion or politics.

i. Establishment of new industrial estates, growth centres power projects etc.

j. Attraction of modern living conditions.

- **Factors Retarding Internal Migration**

It is often observed that some factors stand in the way of migration of people within the country.

a. Family Attachment: Family attachment plays an important part in traditionalistic societies. In India where joint family system still prevails, emotional family attachment often prevents migration from place of their residence to other places.

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b. Higher Cost of Living and Maintaining More Than One Establishment: The high cost of living in the place of new destination often retards migration. When people move from their place of origin to a new place, they do so alone without their family. If they do not find suitable accommodation at the new place, they have to bear the cost of two establishments which prevents them from migrating.

c. Distance and Transportation Cost: Distance plays a very important role in preventing the process of migration. In recent times with rapid economic development and increased means of transportation one can reach his destination quickly but the process may be costly. Hence, high transportation may deter people from migrating.

d. Socio Cultural Conditions: People are reluctant to migrate to such places where they have to face different social customs, cultural traditions, religious attitudes and alien language. They find it difficult to adjust themselves to such an environment. Differences in language are a main problem especially in international migration.

- **Determinants of Migration**

Migration is a complex process and several factors are associated with it. For the sake of convenience the determinants may be categorised into social, economic and demographic determinants.

a. Social Determinants- There are certain social customs that generate specific type of migration. For instance females move from their parent's residence to the residence of their spouses after marriage. This type of migration owes nothing to the desire of economic gains.

b. Economic Determinants- Economic motives constitute the most vital determinants of population movement. Included among the various economic determinants which govern the magnitude and direction of migration are the general economic conditions of the area, the availability of good agricultural land, size of landholdings, the rate of growth of employment opportunities etc. The depressed economic conditions in an area generate tendencies of outmigration whereas condition reflecting economic prosperity offer greater economic prosperity offer greater employment potential and attract immigrants.

c. Demographic Determinants-A number of demographic factors also play a determining role in the migration propensity spectrum. For example, age has been recognized as one of the important demographic factors controlling the degree of desire to move among the potential migrants. Young adults are more migratory than other groups. Similarly it is the rate of growth of population that determines the extent of population pressure in an area. The great historic movement of European population across the Atlantic was an expression of increasing stress upon the resources of Europe. Large scale outmigration from intensely crowded parts of Bihar and Uttar Pradesh is largely due to a poor population – resource ratio in these areas.

4.4.4. Effects of Migration

Internal migration affects the place where from people migrate and the place to which they migrate. When the migrants move from rural to urban areas, they have both positive and negative effects on the society and economy.

a.   Effects on Rural Areas

Migration affects rural areas (the place of origin) in the following ways:

i.   Economic Effects: When people migrate from rural areas it reduces the pressure of population on land, the per worker output and productivity on land increases and so does per capita income. Those who migrate are usually in the age group18-40 years. They live alone, work and earn and remit their savings to their homes in villages. Such remittances are good for the economy of the village especially when emigrants in foreign countries send large sums back home. This in turn raises the standard of living in the village people as they have easy access to consumer durables that can be purchased with the money remitted to them. This leads to increasing inequalities amongst the rural people. Further, with the migration of working age persons to urban areas the number of farm workers is reduced. This leads to employment of underemployed family members on the farm such as women, older persons and even juveniles.

ii.   Demographic Effects: Migration reduces population growth in rural areas. Long periods of separation from spouse helps in controlling population growth. Also living in urban areas often helps in raising the expectation of migrants who prefer to settle down and then marry, thereby decreasing the period of active cohabitation amongst couples. Living in urban areas makes migrants health conscious and they begin to emphasize on health care, hygiene and cleanliness which in turn reduces fertility and mortality rates.

iii.   Social Effects: Migration also affects the social setup of rural communities. It weakens the joint family system if the migrants settle permanently in urban areas. With intermingling of the migrants with people of different castes and regions in cities, they bring new values and attitudes which gradually change old values and customs of ruralites. Women play a greater role in the social setup of the rural life with men having migrated to towns.

b.   Effects on Urban Areas

i.Demographic Effects: Migration increases the population of working class in urban areas. Most of the migrants are in the productive age group. Leaving their families behind in the villages keeps the fertility low in rural areas as well as in urban areas where they prefer to keep the family size small due to high costs involved in rearing small children. Also, the availability of better medical facilities in urban areas is responsible for low fertility rates.

ii. Economic Effects: The effects of migration on income and employment in urban areas are varied depending upon the type of migrants. Usually the migrants are unskilled and find jobs of street hawkers or rickshaw pullers or other tradesmen. These are "informal sector activities" and are usually low paying. According to the ILO however, the informal sector is profit making and economically efficient. So these people earn enough to remit back home. Likewise the other migrants who are semiskilled and partially educated earn enough to bring them up in the category of the common urbanite, and the highly educated class remit large sums from their salary to their rural homes and help in modernizing the rural scenario.

c. Adverse Effect of Rural-Urban Migration

Migration from rural to urban areas leads to the prolific growth of slums and shanties. Such settlements have no access to basic infrastructure and municipal facilities. Besides housing problems the transport system in urban areas often crumbles down due to the influx of migrants. There are air and noise pollutants, and increased crime and congestion. There is also massive unemployment and underemployment in towns and cities as urban migration increases the growth rate of job seekers relative to the population growth thereby increasing the supply of labour.

4.5. RECENT TRENDS OF MIGRATION IN INDIA

Migration in India follows the following patterns:

Interstate migration is the commonest form of internal migration when people move from one state to another within the country for permanent settlement. The size of people migrating from one place to another in India is small. In the 1961 census, the registration of 68.6% out of the total population was done at the birth place which shows that only 31.4% migrated. In the 1971 census, this number decreased to 29.5%. Inter-state migration during 1961-71 shows that people from Uttar Pradesh, Kerala, West Bengal, Andhra Pradesh, Karnataka, Punjab, Rajasthan, Tamil Nadu, Nagaland Gujarat, Jammu Kashmir and Bihar respectively migrated. Migration was continuously occurring in Maharashtra, Delhi, Madhya Pradesh, Assam and Gujarat. During 1951-61 migration occurred from Jammu and Kashmir and Rajasthan, Bihar and Tamil Nadu to other states, while during 1961-71, migration from other states occurred into these states. Thus during 1951-61, these states are population losing states. During 1961-71, these states came under the category of population gaining states.

 The interstate migration data reveal that the highest population (6.41%) migrated from other states to West Bengal in 1961 which is an industrially developed state, while the least people migrated to Jammu and Kashmir, which is a backward state. Similarly, the highest population (6.49%) migrated to other states from Punjab; while the least population (0.98%) migrated to other states from Assam. During 1971-81 there were no important changes in the trends of migration. There was no significant

change even in the size of population coming in Maharashtra from other states through migration. The highest population (3.7%) migrated to Maharashtra from the northern states of Bihar and Punjab.

The migration stream from 1981 to 1991 shows that, population from Uttar Pradesh, Bihar, Rajasthan, Punjab and Andhra Pradesh migrated mainly to Maharashtra, Bengal, Assam and Karnataka. In the inter-state migration, the role of female has been of much importance. This is because females after their marriage settle at the place of their husbands. People largely migrate to Delhi and other metropolitan cities because opportunities of employment, educational and other facilities are available there.

The data on migration by last residence in India as per Census 2001 shows that the total number of migrants was 31.4 crore. In the decade 1991-2001, about 9.8 crore persons migrated to a new place from their place of last residence. Out of these migrant by last residence, 8.1 crore were intra-state migrants, 1.7 crore inter-state migrants and 7lakh international migrants. The largest volume is confined to migration from one part of the State to another. Migration on account of change of residence by women after marriage constitutes significant proportion of these migrants.

As per 2001 Census in 1991-2001, about 5.3 crore persons migrated from one village to another. The number of migrants from villages to towns was about 2.1 crore. Similarly, number of migrants from towns to villages was about 62 lakh and from one town to another about1.4 crore. The number of net migrants by last residence during the past decade, i.e., the difference between in–migrant and out–migrants for each State, showed Maharashtra at the top of the list with 23.8 lakh net migrants, followed by Delhi (17.6 lakh), Gujarat (6.8lakh) and Haryana (6.7 lakh) as per Census 2001. Uttar Pradesh (-26.9 lakh) and Bihar (-17.2 lakh) were the two states with largest number of persons migrating out of the two states.

Migration into large metropolises were significant in 1991-2001 with Greater Mumbai UA drawing about 24.9 lakh migrants, Delhi UA about 21.1lakh migrants, Chennai UA about 4.3 lakh migrants to name the largest three urban destinations in the country. As the trend in migration to large Urban Agglomerations continued, the Census 2011 is likely to show a spurt in population in these places.

According to different migration streams, it can be divided into four parts:

a. Rural to rural migration (Rural turnover)

b. Rural to urban migration (Rural push)

c. Urban to urban migration (Urban turnover)

d. Urban to rural migration (Push back)

a. From Rural to Rural Migration

This type of migration is common in countries that are primarily agrarian. In a country like India rural migration is often directed towards rural areas experiencing development of irrigation, reclamation of waste land, intensification of agriculture etc. The motive behind such migration is generally economic and such migration may take place even for long distances and is often permanent. This is the most important type of migration because in 1961 this constituted 73.7% of the total internal migrated population. Though the percentage has decreased in recent years, in an agricultural country like India this type of migration is common.

During 1961-91 migration was higher in females as compared to males. The total migration in 1961 was 73.7% of which 81.3% were females and in 1991 the total size of migrated population was 64.5% of which 72.2% were females. In all censuses, rural to rural migration stream has been the most important. Females constitute a significantly higher proportion of rural ward migrants mainly on account of marriage. In 2001, rural to rural remained the major pattern of female movement, with 36 percent of them migrating from rural to rural areas Thus; the main reason for female migration is marriage because a female migrates to her husband's village.

b. From Rural to Urban Migration

This type of migration is very important from the point of view of urbanization. During the process of industrialization, the migration of rural population occurs in search of jobs in the industries centered round urban areas. These types of migration are caused by both push and pull factors. In the less developed world which has high rural densities and where rapid urban industrial development is taking place, both push of rural areas and pull of urban centres generate migratory tendencies among the people.

By comparison, the pull of urban areas may include better employment opportunities; regular and higher wages, fixed working hours, better facilities for living, educational facilities etc. The number of males is higher in cities because males alone go to cities in the beginning in search of jobs and bring the family for settlement later. This type of migration occurs due to repelling forces in cities from agricultural fields in villages. In most developing countries, such migration is the obvious result of the process of economic development.

In 1961, 25.7% males migrated from rural to urban areas due to rural push. This increased over the years due to increasing pressure of population on land, large scale unemployment and underemployment in rural areas, depressing rural scenario and so on. In other words more than the attraction of city life, it was the rural push which encouraged migration. In all these years however the percentage of female migrants remained low. This is because more employment opportunities are available to males in urban areas as compared to females. Moreover, in the Indian social setup single unmarried females do not migrate to urban areas. The trend has changed in the last two decades due to increase in literacy and the consequent migration of females.

In 2001, 309 million persons were migrants based on place of last residence, which constitute about 30% of the total population of the country. This figure indicates an increase of around 37 percent from census 1991 which recorded 226 million migrants. Out of the total migrants 91 million are males and the rest 218 are females. Thus migrants constitute around 30 percent of the total population, male and female migrants constituting 18 percent and 45 percent of their population respectively.

The consequences of large scale unplanned rural to urban migration is not necessarily always happy. Often big cities are incapable of providing even the minimum amenities of good living to these migrants. Such migration is indirectly responsible for creation of slums and shanty settlements.

c. From Urban to Urban Migration

Inter-urban migration that takes place between one urban centre to the other is more common in the highly urbanized countries of the world though it also takes place in less developed countries in small magnitudes. In the developed countries where most of the population lives in urban areas the inter-urban migration is governed largely by the economic factors. In the less developed countries where the big cities are the chief magnets, these attract migrants from other urban centres who have acquired sufficient skills for absorption in big industrial centres. The vacuum caused in small urban centres is filled by subsequent immigration from surrounding rural areas. Thus in the developing countries this migration forms a part of what is commonly known as "step migration". Urban to urban migration is generally motivated by economic factors and does not have distance and time barrier.

According to 1961 Census, the size of urban to urban migration was 8.1% which increased to 11.2% in 1991. This indicates that during the process of development, the main cause for urban turnover is pull factor towards metropolitan cities. People from towns and small cities are attracted towards metropolitan cities for better job prospects, trade business, establishment of new industries, educational facilities, modern lifestyle etc. This leads to increase in the population of metropolitan cities.

d. From Urban to Rural Migration (Push back)

This type of migration is least common compared to other types of migration as discussed above. Such a movement takes place at the advanced stage of urbanization and is generated by over congestion. Since only the advanced countries have attained high degree of urbanization therefore it is more common in developed countries. While overcrowding has induced this kind of movement, development of efficient transport system has facilitated it. In India many retired personnel tend to settle in their native villages where they still have their landed property.

4.5.1. Interstate vs. Intrastate Migration

Interstate migration refers to migration from one state to another while intrastate migration is movement within the state. Of the total migrants in 2001, 87 percent were migrants within the state of enumeration while 13 percent were interstate migrants. Among the male migrants, 79 percent moved within the state of enumeration while 21 percent moved between states. Among females, 90 percent were intrastate migrants and 10 percent were interstate migrants.

As regards long distance (inter-state) movement in India, a clear sex differential is found from census 2001. Among the male interstate migrants, rural to urban stream emerged as the most prominent accounting for 47 percent.

98 million persons moved during the decade 1991-2001. Out of this, 33 million are males and 65 million are females. Of the total inter censal migrants, 83 percent were intrastate migrants and 17 percent were interstate migrants. However, among the males, 74 percent migrated within the state of enumeration while 26 percent moved between states. A corresponding percentage of females (13 percent) were recorded as interstate migrants. This indicates that mobility of Indian population has significantly increased during the 1990s.

From the flow matrix, Maharashtra emerges the most favored destination for migration. Half of the entire interstate migrants have moved to Maharashtra. Gujarat and Haryana are the other preferred destinations with nearly 30 percent of the migrants moving to these states. The three states, thus, attracted 80 percent of all interstate migrants during the inter censal period 1991-2001.

There is growing evidence in India to suggest that the country is moving fast in the overall development. Structural transformation in the 1990s has propelled the growth of the economy further. The percentage of people below poverty line has reduced and per capita consumption has improved simultaneously. Although Indian economy is predominantly agricultural, the proportion of work force engaged in agricultural activities has fallen significantly. This reduction is perhaps, a sign of enhanced job opportunities in other sectors. Maharashtra, Gujarat and Haryana have attracted migrants because of high per capita income. Out migration is generally from the states with low per capita income with the exception of Punjab where high per capita income has not attracted migrants in the last two decades.

4.5.2. Consequences of Migration

The study of consequences of migration should not be limited to the description of these simple numerical expressions and should try to look beyond these simple quantitative expressions. For example, an increase in the density of population through migration may either increase the region's burden upon its resources or may enhance the capacity to exploit its resource potential. While analyzing the consequences of population

movement, population geographers should examine this aspect more carefully. For example, movement of educated and technically trained people into an area may not only be seen in terms of the proportional increase in literacy but also it should be examined in terms of the change such an in migration results in the quality of life in the region. The migrants on the other hand, also face serious adaptation problems, e.g. the rural migrants moving to the new industrial towns suffer from lack of pure air and open space also from the presence of noxious fumes, dust etc. Very often these migrants contact diseases due to interaction with alien people of a new region.

These consequences apart, whenever immigrants arrive in groups, they also bring with them their language and religion. The in-migration of Polish families to France in 1920s was one such example where the immigrants were able to preserve their language. Language becomes a serious problem when people from different languages migrate in large numbers and live together for long. Usually migrants try to preserve their language and culture and also try to spread the same. Similarly when people belonging to different religious groups move and start living with people professing different religious faiths, it may either mean a healthy spread of all religions in areas or may cause people of one religious faith to flee for fear of suppression by the other. While Catholic French and British Protestants in Canada are examples of healthy spread of different religious faiths Palestinian Arabs and Jews in West Asia are examples of religious unrest ushered by migration.

4.6. SUMMARY:

In this chapter it has already been explained that human migration is the movement of people from one place in the world to another. Human migration may be internal migration that is people moving within a state, country, or continent or external migration meaning people moving to a different state, country, or continent. When people leave one country to move to another it is called emigration. There are various reasons as to why people migrate. Those reasons may be termed as push factors and pull factors. Push factors include leaving a place because of a problem, such as a food shortage, war, or flood where as pull factors include moving to a place because of something good, such as a nicer climate, more job opportunities, or a better food supply. The effects migration is not negligible because rural-urban migration in developing economies resulting in rapid urbanisation.

4.7. CHECK YOUR PROGRESS/ EXERCISE

1. **True and false**

a. Migration in population geography generally refers to the movement of humans from one place to another.

b. Internal migration takes place within the administrative boundaries of a country.

c. Migration means a short trip for pleasure or business around the world.

d. When a government forces a large group of people out of a region, usually based on ethnicity or religion it is called step migration.

e. Push factors include, lack of employment at the place of residence, low income, shortage of land, poor quality of land, unequal distribution of land.

2. **Fill in the blanks**

a. Migration increases the population of _____- class in urban areas and in this case most of the migrants are in the _____ age group.

b. Migration from rural to urban areas leads to the prolific growth of slums and _____.

c. _____ migration is the commonest form of internal migration when people move from one state to another within the country for permanent settlement.

d. The size of people migrating from one place to another in India is_____.

e. _____ to Rural type of migration is common in countries that are primarily agrarian.

3. **Multiple choice question**

a. Rural to Urban Migration is very important from the point of view of urbanization because

 i. during the process of industrialization, the migration of rural population occurred in search of jobs in the industries centred round urban areas.

 ii. during the process of industrialization, the migration of rural population occurred in search of education in schools in and around the urban areas.

iii. during the process of industrialization, the migration of rural population occurred in search of new vehicles that were made the industries centred round urban areas.

 b. Rural to Urban Migration is caused by

 i. only pull factors.
 ii. only push factors.
iii. both push and pull factors.

c. In the developed countries where most of the population lives in urban areas the inter urban migration is governed largely by

i. the economic factors.
ii. the physical factors.
iii. the political factors.

d. Interstate migration refers to
i. migration within the state
ii. migration from one state to another
iii. migration from one country to another

e. One of the consequences of migration is,
i. whenever immigrants arrive in groups, they also bring jewellery and money with them
ii. whenever immigrants arrive in groups, they bring nothing with them.
iii. whenever immigrants arrive in groups, they also bring with them their language and religion.

4. Answer the Following Questions

1. Define migration. State the types of migration

2. Discuss the causes leading to internal migration

3. What are the factors retarding internal migration

4. Discuss the effects of migration on rural and urban areas

5. Elaborate the recent trends of migration of population in India

4.8. ANSWERS TO THE SELF LEARNING QUESTIONS.

1.a. true
1 .b. true
1.c. false, does not mean
1.d. false, Population Transfer
1.e. true

2.a. working, productive
2.b. shanties
2.c. interstate
2.d. small
2.e. Rural

3.a.i.
3.b.ii.
3.c.i.
3.d.ii.
3.e.iii

4.9. TECHNICAL WORDS:

- **Push factors:** elements of the origin that are perceived negatively leading to a desire to leave.

- **Pull factors:** elements of the destination that are perceived positively leading to place-attraction.

- **Internal migration:** moving within a state, country, or continent

- **External migration:** moving to a different state, country, or continent

- **Emigration:** leaving one country to move to another

- **Immigration:** moving into a new country

- **Return migration:** moving back to where you came from

- **Seasonal migration:** moving with each season or in response to labour or climate conditions

- **A refugee:** is a person who has moved to a new country because of a problem in their former home

4.10. TASK

1. In a chart make columns and name different types migration and the causes.

2. In a chart write the important points of recent trends of migration in India

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5

CONTEMPORARY ISSUES

After going through this chapter you will be able to understand the following features:

Unit Structure

5.1. OBJECTIVES

By the end of this unit you will be able to–

- Understand the Distribution of tribes

- Know about Major religious groups

- Understand the Occupational structure

- Know the Age Structure

- Understand the Population Policy of India

5.2. INTRODUCTION

In the last few chapters study of the definition, nature, scope and importance of Population Geography, and the relation it shares with other Social Sciences along with its historical development has been done elaborately. We have studied the Population Growth, Distribution and Density as well as Zones of density of population in world also. In the third and fourth chapters we learnt different Demographic Theories and Migration. Distributions of tribes, Major religious groups, Occupational structure, Age Structure, Population Policy of India are the main topics which will be learnt in the following chapter.

5.3. SUBJECT-DISCUSSION

According to Oxford Dictionary "A tribe is a group of people in a primitive stage of development acknowledging the authority of a chief and usually regarding them as having a common ancestor." It is recognised as a social group of distinct people, entirely dependent on their land for their livelihood. A tribe is largely self- sufficient and existed even before our modern society came into being. They are not integrated into the national society.

Religion is an organized collection of belief systems. If we include all religions we will find that nearly 86% of the world's population is religious. In many country, religion guides social behaviour of the inhabitants. India has a diversity of religious beliefs and practices and four of the world's major religions; namely Hinduism, Buddhism, Jainism and Sikhism are born in the Indian subcontinent.

Occupational structure describes how people are engaged in different sectors of the economy namely, primary, secondary and tertiary. Actually it is the mix of different types of occupations found in a society. In India in 2005, 54.2% of the population was in primary occupations, 18.8% in secondary occupations and 27% in tertiary occupations. This means most of the people are engaged in primary sector. In recent times, with the growth of industrialisation and urbanisation, there has been an occupational shift in favour of secondary and tertiary sector.

The age structure of a population, a useful tool for social scientists, describes distribution of people among various ages. It is considered useful as it illustrates population trends like rates of births and deaths. Until the 20th century, the human age structure had remained relatively constant and had a pyramidal appearance with a relatively large number of children at the base.

In 1976, the first National Population Policy was formulated and tabled in Indian Parliament. India has the distinction of being the first country in the world to launch a nationwide family planning programme with full government support. Before independence the British rulers of the country were least interested in formulating any population policy for India. They were not even in favour of the birth control movement. The

family planning programme, since its very inception in 1952, has been the responsibility of the Ministry of Health.

5.4. DEFINITION OF TRIBE

The term 'tribe' is derived from the Latin word 'tribus' which was earlier used by the Romans to designate the divisions in society. Latter use suggests that it meant poor people. The present popular meaning in English language was acquired during the expansion of colonialism particularly in Asia and Africa.

A group of people or a social division in a traditional society consisting of families or communities linked by social, economic, religious, or blood ties, with a common culture and dialect, typically having a recognized leader is known as tribe. Tribes are dependent on their land for their livelihood, and are largely self-sufficient. They are not integrated into the national society.

Some of, the leading definitions of tribe are as follows:

- **According to Gillin and Gillin,**

"Any collection of preliterate local group which occupies a common general territory speaks a common language and practises a common culture, is a tribe". ,

- **As Ralph Linton says**,

"In its simplest form the tribe is a group of bands occupying a continuous territory and having a feeling of unity deriving from numerous similarities in culture and certain community of interests."

- **According to Rivers**,

"A tribe is a social group of simple kind, the members of which speaks a common dialect and act together in such common purpose as warfare"

- **According to DN Majumdar**,

"A tribe is a collection of families, bearing a common name, members to which occupy the same territory, speak the same language and observe certain taboos regarding marriage profession or occupation and have developed a well assessed system of reciprocity and mutuality of obligation."

- **T.B Naik has given the following features of tribes in Indian context:**

a. A tribe should have least functional interdependence within the community.

b. It should be economically backward (i.e. primitive means of exploiting natural resources, tribal economy should be at an underdeveloped stage and it should have multifarious economic pursuits).

c. There should be a comparative geographical isolation of its people.

d. They should have a common dialect.

e. Tribes should be politically organized and community panchayat should be influential.

f. A tribe should have customary laws.

Naik argues that for a community to be a tribe it should possess all the above mentioned characteristics and a very high level of acculturation with outside society debars it from being a tribe. Thus the term tribe usually denotes a social group bound together by kin and duty and associated with a particular territory.

5.4.1. Characteristics of Tribe

Though tribal people are scattered all over India and live far from each other they have more or less similar characteristics.

1. Definite Common Topography

Tribal people live within a common definite territory and it is a common place for all the members of a particular tribe occupying that region.

2. Sense of Unity

Sense of unity, during the times of peace and war, is invariably necessary for a true tribal life. They have strong sense of unity and any stranger is attacked with bows and arrows.

3. Endogamous Group

Tribal people generally do not marry outside their tribe and marriage within the tribe is highly appreciated. But mobility has changed the attitude of tribals and inter-tribe marriages are becoming more and more common in the present era.

4. Protection Awareness

To protect tribal people from intrusion and infiltration a single political authority is established and all the powers are vested in this authority. The tribal chief is aided by a tribal committee, in the events of contingencies. Tribe is divided into a number of small groups and each group is headed by its own leader. The chief of a group works according to the directives received by him from the tribal chief.

5.   Distinct Political Organization

Every tribe has its own distinct political organisation which looks after the interests of tribal people.

6.   Importance of Kinship

Kinship forms the basis of tribal social organization. Most tribes are divided into exogamous clans and lineages. The marriage among tribals is based on the rule of tribal endogamy. Marriage is viewed as a contract and there are no prohibition on divorce and remarriage.

7.   Egalitarian Values

The tribal social organization, based on the egalitarian principle has no inequalities like the caste system or sex based inequalities. As a result men and women enjoy equal status and freedom except sometimes tribal chiefs or tribal kings enjoy a higher social status.

8.   Rudimentary type of Religion

Each tribe is guided by their own religion which is based on totemism, magic and fetishism i.e. believing in god being embedded in a special piece of stone, a special tree or a peculiar strange animal.

9.   Living in small groups – mostly the tribal people in India are living in a small group ranging from a band of hundred to few hundreds of people. They are nomadic by nature. A very of them retain a settled agricultural life. For e.g. Gonds of Central India.

10.   Racial characteristics are one of the significant features of the tribes in India.

Some races and their descendent tribes in India are as follows:

a.   Chenchus belong to Negritas group,

b.   Gonds, belong to Austioloids

c.   Nagas belong to mongoloids.

11. Economic Life –The following are the characteristics of tribal's concerning with their economy:-

a. The tribals mostly use simple technology which restricts the use of available natural resources.

b. The tribals carry two economic activities hunting &gathering at the same time

c. Tribals do not believe in the concept of surplus or savings, they are mostly concerned with current consumption.

d. Family is the main unit of production.

e. Distribution of surplus is carried with the help of weekly bazaar or barter system.

f. Division of labour is based on age of sex.

g. They are also earning money by selling wood and skin of wild animals.

12. Social Life –

a. **Family:** the tribal families are patriarchal where father is the head of the family and the property is inherited by the son. Nuclear as well as joint family exist in the tribals.

b. **Marriages and Divorce** – marriages are performed by consulting the elder members of the family. Divorces are most common among the tribals.

c. **Kinship bond and Ties of Blood-relationship-** it is more valued by the tribals because they believe that they came from same ancestors. Blood-relation is the greatest bond and most powerful force inculcating sense of unity among the tribals.

d. **Property inheritance** – the properties of father are inherited by son.

e. **Dormitories** – these are the place where the tribal's come together during evening to play, dance, and sing and tell stories. The seniors teach the tribal culture to the juniors.

f. **Food habits** – most of the tribals are still engaged in food gathering. A large number of the tribals are depending on meat intake of dead animals those are called as non vegetarians. Some of the tribals refused to take the meat of dead plants and hence they considered themselves socially superior.

g. **Dresses** – the tribals living in the jungles using bark clothes and leaves to cover their bodies. Some of them were painting their bodies with earth. The women were covering their bodies from waist to knees and their upper part of their body till neck by using rough cloth.

h. The tribals **never had permanent houses**.

13. Culture

a. **Common Dialect**: Members of a tribe exchange their views in a common dialect. Sometimes contact with the civilised people forced them to learn and speak their local languages.

b. **Education –** most of the tribals in India are illiterate.

c. **Arts and Crafts** – As the tribes live from hand to mouth they generally do not have enough leisure to engage themselves in any art and

craft. Beside their life long struggle sometimes they show up with artefacts in which their originality is retained.

A common characteristic of a tribe lies in the sense of unity, common language, common religion, and common political organisation. This produces a life of homogeneity among the tribals.

5.4.2. Problems Faced by the Tribes in India

Less means of communication in tribal areas, lack of proper drinking water, illiteracy and inadequate medical facilities are some of the major problems faced by the tribals in India. There is no doubt that tribes are backward and exploited more when compared to other ethnic groups of our country. Although the tribals are the sons of the same soil and the citizens of the same country they constitute the matrix of India's poverty. They are practically deprived of many civic facilities and isolated from modern and civilized way of living since so many centuries.

In short, the main problems of the tribals are poverty, indebtedness, illiteracy, bondage, exploitation, disease and unemployment.

1. Problems with land alienation, Displacement and Rehabilitation

Land, a prime resource, has been a source of problem in tribal life because of tribal dependency on land and improper planning from government agencies.

Before the coming of the British, the tribals enjoyed unhindered rights of ownership and management over natural resources like land, forests, wildlife, water, soil, fish, etc.

The story of unending miseries for the tribals began with the advent of industrialisation in India and the discovery of mineral and other resources in tribal inhabited areas. As a result state control replaced tribal control and pressure on land and forests increased. The tribals do not have access to land records, not even the Record of Rights. This resulted in loss of ownership rights over land, owing to chronic indebtedness, unscrupulous landlords, money•lenders, contractors and officials. So the tribals felt themselves uprooted from their cultural moorings and with no secure means of livelihood.

They have been relegated from their earlier 'self-reliant' status to a 'dependent' one. Coupled with the exploitation by the non-tribals, the State legislations also proved detrimental to their interests.

The erection of huge steel plants, power projects, large dams and mining activities mostly in the tribal inhabited areas led to large scale displacement of the tribal population due to the acquisition of tribal land by the government for these projects. It is a strange paradox that although they inhabit the most resource-rich regions of India, many of them are in a state of impoverishment.

The tribal pockets of Chhotanagpur region, Orissa, West Bengal and Madhya Pradesh suffered the most.

The cash compensation provided by the government was frittered away on wasteful expenditure. The displaced tribals were not provided with settlements within the industrial areas. They were forced to leave their own territory and had to migrate to the urban areas to work as unskilled workers in conditions of poverty. This caused psychological problems for them as they are not able to adjust well to the urban lifestyle and values.

2. Gender issue

The degradation of the natural environment, particularly through the destruction of forests and a rapidly shrinking resource base, has had its impact on the status of women. The opening of the tribal belts to mining, industries and commercialisation has exposed tribal men and women to the ruthless operations of the market economy, giving rise to consumerism and to commoditisation of women.

3. Lack of Education:

Education is one of the parameters that act as the instrument for betterment of the tribals. Tribal superstitions and prejudices, extreme poverty, nomadic lifestyle of certain tribes, lack of interest in alien subjects taught through an alien language and a lack of suitable teachers and other facilities in the tribal areas are the factors which inhibit the tribals from taking to education.

4. Problems of Health and Nutrition:

The economic backwardness and insecure livelihood, burdened the tribals with health problems, such as prevalence of disease, like malaria, cholera, tuberculosis, diarrhoea and jaundice. The problems associated with malnutrition like iron deficiency and anaemia, high infant mortality rates, low levels of life expectancy have also been faced by the tribals.

5. Erosion of Identity:

Extinction of tribal dialects and languages is another cause of concern as it indicates an erosion of tribal identity in certain areas. Tribals are clinging tenaciously to their customs and traditions. These are again coming into conflict with modern institutions. They are apprehensive about preserving their identity.

5.4.3. Steps Taken for the Developments of Tribes

The tribals are a special concern of the nation in view of their low technological development, general economic backwardness, and complex problems of socio-cultural adjustment to distinctive cultural identity. Development of tribals and tribal areas is a challenging task for the government, as they are spread over a wide spectrum of

diversities of geographical location, socio- economic and politico-cultural conditions.

So the greatest challenge that the Government of India has been facing since independence is the proper provision of social justice to the tribal people, by ameliorating their socio-economic conditions.

Tribal development efforts in India were established during the British rule. British rulers faced tribal insurgency and unrest which was suppressed by the use of armed forces. At the same time, British administrators realizing the problems of the tribals established separate administrative system in tribal areas. They provided certain facilities in villages and towns such as, education, transport, communication, medical etc. which was inadequate and mainly with self-interest. But no steps were taken for ameliorating the socio-economic conditions of tribal people.

After independence, several constitutional provisions were made for the development of tribe. Many schemes of development were formulated and implemented. Several schemes of tribal development are still active through several five year plans in India. Attempts have been made to make the scheduled tribes to develop socially, educationally, economically, politically and culturally. Some of them include Community Development Programme, Multipurpose Tribal Blocks, Tribal Development Block, Development Agencies, Primitive Tribal Groups, Integrated Tribal Development Projects, Modified Area Development Approach, Tribal Sub-Plan, Dispersed Tribal Development Programme, and Centrally Sponsored Schemes etc.

In the Five Year Plans, the programmes for the welfare of the schedule tribes aim at: 1. Raising the productivity levels in agriculture, animal husbandry, forestry, cottage and small- scale industries etc., to improve the economic conditions. 2. Rehabilitation of the bonded labour. 3. Education and training programmes. 4. Special development programmes for women and children.

Year	Tribal Population	Percentage to Total Population	Decadal Growth Rate
1951	19,111,498	5.29	41.19
1961	30,130,184	6.86	33.84
1971	38,015,162	6.94	24.80
1981	51,628,638	7.83	24.69
1991	67,658,638	8.08	23.79
2001	84,326,240	8.20	22.7
2011	10,43,000,00	8.61	23.7

Source: Census of India from 1951 to 2011, Government of India.

Fig:Tribal population India

The above table shows increase of tribal population through the years. This rise makes the increase of problems for the tribal community evident. In spite of the actions taken by the government to eradicate

these problems through the Five Year Plans, still it requires more efforts to overcome these completely. Its main objectives are to eliminate exploitation, to speed up social and economic development, and to promote and improve the organisational capacity of tribal people.

5.4.4. The Distribution of Tribes in India

The tribal population in India is dispersed all over the length and breadth of the country, though there are some pockets of their concentration. There are in all 571 tribes included in the Schedule. Of these, 108 tribes are to be found in the North-eastern region, 28 in the North-western region, 176 in Central India, 95 in Western India, 143 in the South, and 12 in different islands. The tribes in India form an important part of the total population and constitute nearly 8 percent of the total population. These distinctive tribal groups in the country vary in size from around four millions to a bare two dozen. About 2/3 of the total tribal population of the country are found in the five states – Madhya Pradesh, Orissa, Bihar, Gujarat and Maharashtra.

The tribal population of the country, as per 2011 census, is 10.43 crore, constituting 8.6% of the total population. 89.97% of them live in rural areas and 10.03% in urban areas. The decadal population growth of the tribal's from Census 2001 to 2011 has been 23.66% against the 17.69% of the entire population.

A. **Distribution of tribes on the basis Race: There are three main racial divisions**

a) The Proto-Australoids - This group is characterised by dark skin colour, sunken nose and lower forehead. These features are found among the Gond (Madhya Pradesh), the Munda (Chotanagpur), the Ho (Bihar) etc.

b) The Mongoloids - This group is characterised by light skin colour; head and face are broad; the nose bridge is very low and their eyes are slanting with a fold on the upper eye lid. These features are found among the Bhotiya (Central Himalayas), the Wanchu (Arunachal Pradesh), the Naga (Nagaland), the Khasi (Meghalaya), etc.

c) The Negrito - This group is characterised by dark skin colour (tending to look like blue), round head, broad nose and frizzle hair. These features are found among the Kadar (Kerala), the Onge (Little Andaman), the Jarwa (Andaman Islands), etc.

B. Classification on the basis of Linguistic Affiliations Linguistically the situation is far more complex. According to a recent estimate the tribal people speak 105 different languages and 225 subsidiary languages.

a. Austro-Asiatic family: There are two branches of this family, namely, Mon-Khmer branch and Munda branch. Languages of the first branch are spoken by Khasi and Nicobari tribals. Languages of Munda branch are Santhali, Gondi, Kharia etc.

b. Tibeto-Chinese family: There are two sub-families of this type, namely Siamese-Chinese sub-family and Tibeto-Burman sub- family. In extreme North-Eastern frontier of India Khamti is one specimen of the Siamese- Chinese sub-family. The Tibeto-Burman sub-family is further sub-divided into several branches. Tribals of Nagaland and Lepcha of Darjeeling speak variants of Tibeto- Burman languages.

c. Indo-European family: Tribal languages such as Hajong and Bhili are included in this group.

d.   Dravidian family: Languages of Dravidian family are, for example, spoken by Yeruva of Mysore, Oraon of Chotanagpur.

C.   Concentration of Tribal people in India

a. They form a majority in the north-eastern states such as Arunachal Pradesh, Naga•land, Manipur, Mizoram, and Meghalaya.

b. The majority of the tribals live in the belt of middle India from Gujarat to Bengal. In states like Madhya Pradesh, Chattisgarh and Odisha the tribals account for more than 20 per cent of the population. In Jhakhand, West Bengal, Andhra Pradesh, Gujarat and Rajasthan, the percentage of tribals ranges between 4 to 15 per cent of the total population. However, in the entire middle Indian zone, the tribals are in a majority only in 13 districts.

c. The third zone of tribal concentration is the 'Himalayan region' extending from Kashmir to Sikkim.

d. In South India, the fourth area of concentration, tribal population is rather small.

Dr. B. S. Guha has divided the county into three tribal Zones:

a. The North and North-Eastern Zone, b. The central or the Middle Zone and c. The Southern Zone

a.. North-North-Eastern Zone:

States :Eastern Kashmir, Eastern Punjab, Himachal Pradesh, Northern Uttar Pradesh, Nagaland, Assam etc.

Tribes: The Aka, the Mishmi, the Chulikata, the Naga,Bhotia, Tharu, Lauholese, Lepcha, Gaddi, Dafla, Abor-Miri, Mikir, and the Gurungare some of the tribes of this zone.

b. **Central Zone:**

States: The Central zone of India has a major concentration of tribals covering the states of West Bengal, Bihar, Orissa, Madhya Pradesh, Southern Uttar Pradesh, Southern Rajasthan and Maharashtra (the Vidarbh area).

Tribes: Some of the important tribes of this zone are the Munda, Ho, Oraon, Maria and Muria Gonds, Kamar, Chaukhuntia- Bhunjia, Santals, Birhor, Bondo, Juang, and the Khond. There is a very high concentration of tribal population in central India. Over 85 per cent of the total tribal population inhabits the eight States that constitute this zone.

.**c**. **Southern Zone:**

States: Andhra Pradesh, Tamil Nadu, Karnataka and Kerala are the four states that constitute southern zone.

Tribes: The Toda, the Chenchu, the Kadar and the Koraga are some of the important tribes of this zone.

B. Mamoria has added to this list the fourth zone consisting of Andaman and Nicober Islands.

d. **The Islands Region** The Small Zone consisting of Andaman and Nicobar Islands:

Tribes: The Jarawa, the Andamanese and the Nicobarese are the important tribes of this zone.

B. K. Roy Burman divides the tribal population of the country into **five geographical regions taking territorial, ethnic and socio-cultural relations into account.**

a. The North-East India comprising Assam, NEFA, Nagaland, Manipur and Tripura. Some of the tribes of this area are: the Ahoms, Garos, Khasis, Mizos, Nagas, Kukis, etc.

b. The sub-Himalayan region of North and North West India - comprising Northern Uttar Pradesh and Himachal Pradesh and as a whole. Some tribes of this area are: Gujjars, Bodh, Kinnours, Swanglia, etc.

c. Central and East India comprising West Bengal, Bihar, Orissa, Madhya Pradesh and Andhra Pradesh. Some tribes of this area: the Santals, Ho, Munda, Oraons, Gonds, Chenchu, Koya, Kolam, etc.

d. South India- The area south of the Vindhyas (below Latitude 16) – the Southern zone comprises the states of Tamil Nadu, Kerala and Karnataka. Here, the concentration is found in the southernmost part of the Western Ghats, stretching from Wynaad to Cape Comorin. The tribes of this area are Irula, Kurumba, Kadar, Hakki Pakki, Jenu Kuruba, Kadu Kuruba, the Chenchu, Yuruva, Paniyan, Malapantaram, Toda, Kota, and the Badaga.Scholars believe that these people are the most ancient inhabitants of India who were pushed to these relatively remote habitats by the intruding groups of relatively more advanced cultures.

e. Western India comprising Rajasthan, Gujarat and Maharashtra.

Some tribes of this area are: Mina, Bhils, Kumbis, Mario Gonds, Mahadev Kolis, etc.

From the above discussion the widespread distribution of tribes all over the country maybe grouped into broad geographical regions. On the basis of **ecology,** it is possible to group them into five distinct regions namely,

a. Himalayan region (with tribes like the Gaddi, the Jaunsari, the Naga etc.),

b. Central India (with tribes like the Munda, the Santal etc.),

c. Western India (with tribes like the Bhil, Mina the Grasia Kumbis, Mario Gonds, Mahadev Kolis,),

d. South Indian Region (with tribes like the Toda, the Chenchu etc,)

e. The Islands Region (with tribes like the Jarawa, Onge, North Sentinelese, and the Nicobarese. in Bay of Bengal, the Minicoyans in Arabian Sea).

5.4.5. Tribes in Different Parts of India

a. The Gujjar Tribe

The Gujjar tribe reside in Himachal Pradesh. They fall in Hindu and Muslim community. Majority of Gujjar people live a nomadic lifestyle. Gujjar are brave, strong, hardworking, peace-loving, polite, social and hospitable. They live in joint families and speak Gujari (akin to Rajasthani & Punjabi). Most gujjars can be recognised by their beard and costumes. The gujjars wear Punjabi style of Tamba and the Kashmiri type of shirt called kurti. They mostly wear cap
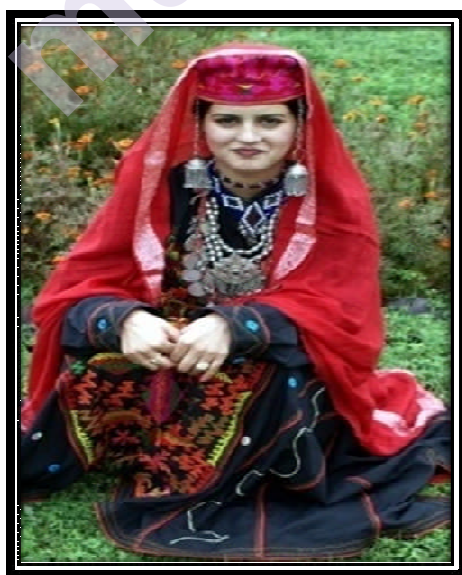

Fig 5.1

1also. The females of the Gujjar tribe wear tight churidaar pyjama and a lose shirts with a long cotton cloth used for covering their head. The Gujjar women are very fond of gold and silver ornaments like the Gaddi tribes. Among the Muslim gujjars, child's birth is considered as the gift of Allah and matter of joy. Meals of gujjars include milk, ghee, milk products and maize. Meat is served occasionally. The main occupation of the gujjars is rearing of cattle which are also the main source of income. Financially the gujjars are not very poor. There are several types of marriages in the Gujjar tribe which include Batta-Satta, marriage by service, marriage by purchase and Ghar-Jawain.

b.   The Bhil Tribe

The Bhils are the most widely distributed tribal groups in India and are scattered in various states like Rajasthan, Maharashtra, Gujarat and Madhya Pradesh. In Rajasthan the bhils live in Dungarpur, Banswara, and Udaipur and Chittorgarh district. The name "Bhil" was probably derived from the word villu or billu, which in most Dravidian languages is the word for "bow." The bow has long been a characteristic weapon of the Bhil because the tribesmen always carry their bows and arrows with them. The Bhil tribes inhabit some of the most remote and inaccessible areas of

India. There are two divisions of Bhils: the Central or "pure" Bhils, and the Eastern or Rajput Bhils. The Central Bhils live in the mountain regions in the states of Madhya Pradesh, Gujarat and Rajasthan. They are known as the connecting link between the Gujaratis and the Rajasthanis and are one of the largest tribal communities of India. They speak Bhili, which is an Indo-Aryan language. The Bhils are known to have fought against the Mughals, Marathas and the British

They were engaged in hunting and gathering and later on they were engaged in agriculture. The bhils are believed to be the ancient inhabitants the Aravallis before the Aryan gradually infiltrated to the western and the central Indian plains.The name

Fig - 5.2

Bhil is also finds mentioned in the great epic called Mahabharata and Ramayana. Apart from other states, Bhils comprise 39% of

Rajasthan's total population. They speak Bhili, which is an Indo Aryan language. The bhil tribe people are tall, well built with handsome features. They are famous for their bravery, simplicity and truthfulness. They are independence lovers. Their national weapon is bow made of bamboo. They practice agriculture as the source of livelihood. With the development and progress now a day they are engaged in fishing, pottery and farming. Ladies of bhil community do a lot of tattooing. They are interested in arts and music. They like designing and decoration. Bhils believe in magic and ghost. They lived in isolation in primitive days but now a day they are living in groups. They worship Ram &Hanuman.

c.   The Gond Tribe

The Gonds comprise the largest tribal group in India. Historically, the Gonds were the most important group of the original Indian tribes. In the 1500's, several Gond dynasties were established and their rajas or kings ruled like Hindu princes. The Gonds were conquered by the Muslim armies in 1592 but their tribes were not disturbed by the changes in administration. The Gonds are the tribal community mostly found in the Gond forests of the central India. They are widely spread in the Chhindwara District of Madhya Pradesh, Bastar district of Chhattisgarh. The Gond tribes are also in the parts of Maharashtra, Andhra Pradesh, and Orissa. Koi or Koitur are the names by which the Gonds call themselves. Koi or Koitur means unclear. Gonds are one of the largest tribe of India. Gondi language which is related to Telugu is spoken by the Gond tribes and also some Dravidian languages are spoken. Gonds living in the northern part are often seen speaking the local language Hindi and Marathi. Gonds present in the southern parts speak Parsi or Persian. Gonds are mainly divided into four tribes namely - Raj Gonds, Madia Gonds, Dhurve Gonds, Khatulwar Gonds. Men of the Gond tribe wear Dhoti, which is a long piece of cotton cloth wrapped around the waist passing through the legs, whereas soft cotton saris are worn by Gond women along with Choli or blouse. The staple food of Gonds is the two millets known as Kodo or Kutki. Rice is the ceremonial feast of the Gonds, which they prefer eating during the time of festivals. Most of the Gonds are the meat consumers.

d.   Santhal Tribe

They are most important tribes in India. Santhals are the third largest tribe in India. They have the largest population of tribes in India. It contributes to 5.6 million of total population. They are mostly found in the states of West Bengal, Bihar, Orissa, Jharkhand and Assam. Santhals speak Santhali, which belongs to the Austro- Asiatic language family. In 1925, Dr. Raghunath Murmu developed a script called Olchiki of the Santhal tribe. According to the census their population is around 49,000. They are generally bilingual. Apart from Santhali

Fig 5.3

they also speak Bengali, Oriya and Hindi. Santhals have long head and flat nose. Their complexion varies from dark brown to black in colour. Santhals usually have curly hair. The livelihood of the Santhals revolves around the forests they live in. They fulfil their basic needs from the trees and plants of the forests. The Santhal tribe is also engaged in hunting, fishing and cultivation for their livelihood. Making of musical equipments, mats and basket out of plants is the talent or skill present in the tribes of Santhal. This talent is safely passed on from one generation to the other. Due to increase in educational status, they are engaged in trade, service and business. Santhal women are well educated and they also contribute to family's income. They have permanent house and we see that the Santhals are one of the advanced tribes in India. They live in the houses made up of mud or tiles. They live villages and they have their own village panchayat. They believe in many gods and goddesses.

e.   Khasi Tribe

Khasi tribe is mainly found in the state of Assam and the Khasi Jaintia hills in Meghalaya and in the states of Punjab, Uttar Pradesh, Manipur, West Bengal and Jammu and Kashmir. Khasi Pahris, Khuchia, Kassi, Khashi and Khasa are some names by which the Khasi tribes are called. It is said that the Khasis were earliest immigrant tribes who came from Myanmar, and settled down in the plains of east Assam. Earlier the Khasis had their own kingdom, until the Britishers exercised control over them. Khasi – an Austro- Asiatic language is spoken by the Khasi tribes. Jymphong, which is a long sleeveless coat without collars is worn by the men of Khasi tribe. They also wear headgears or turbans. While the dress of Khasi women is mush complex with several pieces of cloths. Jewellery is loved by the Khasis. Crown made of gold and silver are also worn by them. Khasi men wear large earrings. Women also wear different earrings which are circular or

oval shaped. Both men and women have gold and silver chains around their waists. Khasis have brown to light yellow skin. Aquiline noses and folds on skin are found in khasi tribe. Rice is the staple food of the Khasis. Meat and Fish is also consumed by them. Rice beer is loved by the Khasis on ceremonial occasions.

f.   The Garo Tribe

Garo is a hilly tribe of North- eastern India with a tradition of 'shifting hill cultivation'. The Garo form one of the important matrilineal tribe inhabiting north- eastern region of India, mainly found in Meghalaya state. They are also found in Kamrup, Goalpara and Khasi hill regions of Assam, Mymensingh district of Bangladesh and in Jalpaiguri, Cooch-Behar

Garo Tribe

Fig 5.4

districts of West Bengal. The Garo habitually dress them with traditional long attires, in winter season; an additional coloured, stripped cotton-jacket is worn on the top of them. A typical of head gear is also used by males in different seasons. In summer, the male dress consists of a type of sleeve-less shirt. Skirts and blouses of bright colours are worn by Garo women. Sophisticated modern dresses are gradually gaining popularity among the Garo. They are very much fond of ornaments. Both men and women wear ornaments of brass, bronze, iron, wood, and rarely of silver. Rice is their staple food. Sometimes, it is being replaced by bajra, maize, barley etc. The boiled grains along with gruel and boiled vegetables

with salt and chillies form the principal diet of the Garo. They take the meat of all animals and birds. The meat of dog, cat and tiger is consumed by them with much relish.

g.   **The Naga Tribe**: Nagas belong to Mongoloid family. They live in Nagaland. They have   medium height, straight hair and   brownish yellow skin. The designation   "Naga" is applied to the numerous Indo-Mongoloid tribes living in the hill country at the convergence of the borders of India and Myanmar (Burma).The locus of Naga culture is the hill country of northeast India between Assam's Brahmaputra Valley to the west and the Myanmar (Burma) border to the east. It is a steeply ridged and densely forested area bordered by the states of Arunachal

Fig 5.5

Pradesh on the north and Manipur on the south. The approximate geographic coordinates of the Region are 24° 00' to 27° 30' N and 93° 00' to 95° 00' E. The Naga are characterized by a linguistic diversity that directly parallels their tribal diversity. There are about as many Naga dialects as there are Naga tribes. The lingua franca of the state of Nagaland is Naga Pidgin (also known as Nagamese, Kachari Bengali, or Bodo) and is particularly prevalent in Kohima District. There are some twenty-seven known Naga dialects, all part of the Tibeto-Burman Family, which is itself part of the Sino-Tibetan Phylum. These include Angami Naga, Ao Naga, Chang Naga, Chokri Naga, Kheza Naga, Khiamngan Naga, Khoirao Naga, Konyak Naga, and many others.

5.5. MAJOR RELIGIOUS GROUPS INDIA

India is a land of diversities. This diversity is visible in the spheres of religion too. The spiritual land of India has given birth to many religions such as Hinduism, Sikhism, Jainism and Buddhism. The major religions of India are Hinduism (majority religion), Islam (largest minority religion), Sikhism, Christianity, Buddhism, Jainism, Zoroastrianism, Judaism and the Bahá'í Faith. India is a land where people of different religions and cultures live in harmony.

a. Hinduism

Hinduism is the ancient among all other types of religion in India. The majority of the population in India practice Hinduism which is the most ancient religion in the country. As per Census 2011, about 80% Indian practice Hinduism. Some practitioners of this religion call it Sanatan Dharam, a term popularised by Mahatma Gandhi. Ramayana and the Bhagavad Geeta are the holy books of the Hindus.

Hinduism has no exact founder. It is the religion of Hindus. Vedic religion is the root of Hinduism. The Hindus believe and practice the principles of the Vedas and the Upanishads. Upanishads describe the doctrine of endless birth and rebirth until the soul achieves Mokshya or Liberation. Their place of worship is known as Temple. They worship

the icon which is considered as a reflection of God. But, the Hindus who belong to the Arya Samaj do not practice idol-worship. There is a system of symbolism in Hinduism; the swastika sign symbolises auspiciousness and the syllable Om represents Param Brahaman. With reference to the Hindu mythology, there are many Hindu festivals like Diwali, Holi, Bihu, Ganesh Chaturthi, Durga Puja and many more which are celebrated in the country.

Hinduism is characterised by a diversity of religious beliefs and practices, but its central concept is Dharma. Dharma governs both nature and society. Though it is divided into a number of sects and cults, all Hindus follow certain common beliefs, customs and traditions.

b. Islam

Islam means 'Submission to God'. The faith requires an absolute commitment to the idea of the unity of God. The three principal sources of authority for the Muslim community are the Quran, custom and the law.

As a religious system, Islam is defined by the five pillars: (i) Profession of faith, (ii) worshipping, (iii) alms giving, (iv)fasting, (v) pilgrimage.

The Muslims forms around 14.23% of the population of India, as per Census 2011. It is the second largest religion in the country and its followers are known as Muslims. They are divided into sub sections, most famous being Sunnis and Shias. The holy book of the Muslims is the Quran; they believe and follow the teachings of Prophet Muhammad. In Islam, Hajj is an annual pilgrimage in Mecca which has to be carried out at least once by every physically and financially capable Muslim in his lifetime. Some of the major Islamic festivals celebrated in India are Eid-ul- Fitr, Eid-ul-Zuha and Muharram.

c. Sikhism

Sikhism was originated between 1468 to 1709. The religious doctrines of Sikhism were produced by a line of ten gurus. The most important of all gurus is Guru Nanak.

Guru Nanak founded Sikhism in India during the 15th century in the Punjab region. Guru Granth Sahib is the holy book of the Sikhs which is a collection of the writings of the Guru.

The Sikhs constitute about 1.72% of the people of India as per the census 2011. They are identified because of five 'Ks' they wear. The five 'Ks' are: Kesh (long hair), Kanga (comb), Kachcha (short trousers), Kara (iron Bengal) and a Kripan (Sword).

There are no festivals in Sikhism in particular, but some festivities are generally celebrated on birthdays or martyrdom of Sikh Gurus. Gurupurabs, Baisakhi, Nagar Kirtan, Hola Mohalla are some of the festivals and events celebrated by the Sikhs. The religious beliefs of the Sikhs do not favour fasting or going to the pilgrimages. In India,

majority of the Sikhs reside in Punjab and their large community lives in the neighbouring states.

d.   Buddhism

Buddhism was founded in India by Siddhartha Gautama also known as 'Buddha'. The word 'Buddha' denotes 'The Enlightened One'. Buddhism originated during the 6th century B.C. The goal of Buddhism is Nirvan or Salvation.

Buddha has given eight fold path or the Ashtanga Marg. It consists of:

1. Right views or faith, 2. Right aspiration, 3. Right speech, 4. Right action, 5. Right livelihood, 6. Right effort, 7. Right mindfulness, 8. Right contemplation

The Buddhists constitute only about 0.70% of the total population of the country. They believe in the concepts of Samsara, Karma and Rebirth, and practice the teachings of Buddha. Buddhism believes in attaining enlightenment through love, kindness and wisdom. The Buddhists believe in devotion which is also an important part of their practice of this religion. Pilgrimage, bowing, chanting and offerings are some of the devotional practices followed by the Buddhists. Birthday of Buddha (also known as Vesak), Asalha Puja Day, Magha Puja Day and Loy Krathong are some of the festivals celebrated by the Buddhists.

e.   Jainism

Jainism is believed to have originated in India in the 7th-5th century BCE and was founded by Mahavira. It is founded by Vardhamana Mahavir. He is a contemporary of Buddha. The basic teaching of Jainism is the ability of human beings to conquer the limitation of physical existence through ascetic discipline. It rejects the idea of monotheism. This religion believes in the theology of self rather than God. It follows the principles of ahimsa (nonviolence), aparigraha (non-possessiveness) and anekantavad (non-absolutism). A minority of Indian population (about 0.37%) practice Jainism, as per census 2011. As per the history of Jains, there were twenty-four propagators of the religion who were known as tirthankaras, Rishabh was the first while Mahavira was the last. The followers of this religion undertake five vows of ahimsa, satya, asteya, bramcharya and aparigraha. Mahavira Jayanti, Paryushana Parva, Diwali and Maun-agiyara are some of the festivals celebrated by the Jains.

f.   Christianity

It is a faith grounded in the teaching of Jesus. As per historical beliefs, Christianity came to India about 2000 years ago. It constitutes about 2.3% of the total population of the country, according to census 2011. Christian population can be found all over the country but majority of the people who belong to this religious section lives in the parts of South India, North-East and the Konkan Coast. The

Christians worship and believe in Jesus Christ, whom they consider as the saviour of humanity and the son of God. Christmas is the major festival of Christians. Good Friday, All Souls Day and Easter are some other festivals celebrated by the people of this religion in the country.

g.   Others

Judaism and **Zoroastrianism** are also practiced by minority population in the country. According to Judaism, there exists a covenant relationship between God and Jewish people. One of the minority groups in the country, Zoroastrianism considers that humans are the helpers of God. The people who follow Zoroastrianism are known as Parsis. It is the religion of Parsis. They are the followers of Zoroaster. They worship fire. Their percentage in India is negligible. Those who follow Judaism are called Jews.

h.   Animism

It is the religious faith of tribals. They believe in worshipping of ghost, spirit and soul. They worship hill, stone, tree etc. as they believe that each and every object has a soul. This animistic belief is rather a universal feature of the tribal religion. The most interesting aspects of religions of India are the fact that Christians are the only community (among major religions) in India that has more women members than men. The ratio of men to women actually improved from 1,009 females forever 1,000 males in 2001, to 1,023:1,000 in 2011.However, this 1.4 percent increase of females per male is not even the biggest one over the past decade. The Muslim community saw a 1.5 percent increase in the ratio of females to males (from 936:1,000 in 2001 to 951:1,000 in 2011), and the overall Indian average was a 1% improvement in sex ratio. Meanwhile, the Hindu community saw the lowest increase (from 931:1,000 to 939:1,000) at only 0.8 percent.

All India Religion Census Data 2011						
Religion	Percentage	Estimated	Total	Male	Female	State Major
All Religio	100.00 %	121 Crores	1,210,854,977	623,270,258	587,584,719	35
Hindu	79.80 %	96.62 Crores	966,257,353	498,306,968	467,950,385	28
Muslim	14.23 %	17.22 Crores	172,245,158	88,273,945	83,971,213	2
Christia	2.30 %	2.78 Crores	27,819,588	13,751,031	14,068,557	4
Sikh	1.72 %	2.08 Crores	20,833,116	10,948,431	9,884,685	1
Buddhi	0.70 %	84.43 Lakhs	8,442,972	4,296,010	4,146,962	-
Jain	0.37 %	44.52 Lakhs	4,451,753	2,278,097	2,173,656	-
Other Religio	0.66 %	79.38 Lakhs	7,937,734	3,952,064	3,985,670	-
Not Stated	0.24 %	28.67 Lakhs	2,867,303	1,463,712	1,403,591	-

From the above table it is derived that the Population Growth rate of various religion has come down in the last decade (2001- 2011). For example Hindu Population Growth rate slowed down to 16.76 % from previous decade figure of 19.92% while Muslim witness sharp fall in growth rate to 24.60% (2001-2011) from the previous figure of 29.52 % (1991-2001). Such sharp fall in population growth rate for Muslims didn't happened in the last 6 decades. Christian Population growth was at 15.5% while Sikh population growth rate stood at 8.4%. The most educated and wealthy community of Jains registered least growth rate in 2001- 2011 with figure of just 5.4%.

The Growth rate of Hindus, Muslims and Christian is expected to fall more in upcoming 2021 census while other religions like Sikhism, Jainism and Buddhism are expected to remain stable for next 2 decades considering already slowed down growth rate of these religions.

Although, different religions are practiced in India, the secular and sovereign nature of the country remains intact. In fact, all religions collectively play an important role in maintaining the harmony, culture, history and peace in the country.

5.6. OCCUPATIONAL STRUCTURE

Changes in the size, composition and distribution of population are closely associated with the demographic structure of workforce. On the other hand, the workforce participation rates vary according to the stages of economic development, across cultures, age groups, and between sexes. Indian economy has been predominantly agricultural which contributes about one third to the total economy and employs more than half of the workforce. The agriculture is understandably not able to absorb a significant number of additional workers. However, with modernization, urbanization and industrial development picking up, there is likely to be a shift in the occupational structure of the Indian workforce. Moreover, a major change in the economic policy has taken place in 1991 with the introduction of liberalization of Indian economy.

Occupational structure can broadly be classified into primary, secondary and tertiary activities and likewise societies have been classified too. Societies where less than 15% of workers are in tertiary activities have been called as **primary civilizations** and those having more than 40% of the workers in tertiary services as **tertiary civilization**. The intermediary societies with 15-40% workers in tertiary activities are known as **secondary civilization**. Since the diversification of economy is intimately related to the stage of technological advancement and socio economic development, the countries with more than 60% of their male workers deriving their livelihood from agricultural sector are considered underdeveloped. Similarly countries with agricultural labourers forming less than 35% of the workforce are considered as developed.

Since there is a large variety of occupations in the world and the number of occupations also varies from country to country, the United Nations has adopted a nine fold industrial classification which is as follows:

a. Agriculture, forestry and fishing b. Mining and quarrying

c. Manufacturing industries

d. Electricity, gas, water and sanitary services e. Construction

f. Commerce

g. Transport, storage and communication h. Services and

i. Not classified elsewhere

In India, the Indian Census has refined its industrial classification considerably and has made it almost synonymous with that being followed by the United Nations. The 1971 Indian Census adopted the following classification:

a. Cultivation

b. Agricultural labour

c. Livestock, forestry, fishing, hunting, plantations orchards and allied activities

d. Mining and quarrying

e. Manufacturing, processing, servicing and repairs:

i. Household industry

ii. Other than household industry f. Construction

g. Trade and commerce h. Transport and storage i. Other services

The 1981 Census of India published its data about its workers into four main categories. These are:

a. Cultivators

b. Agricultural laborers

c. Household industrial workers d. Other workers

In 1991, the census decided to go back to its nine fold classification the one that was fairly compatible with that followed by the United Nations. It is an accepted fact that India has a low participation rate of only 39.1% (2001) in consonance with the stage of its demographic transition. The country's high fertility rate still adds large number of children and with the decline in mortality rate the condition seems no better. There persist wide male female differentials in the participation rate. In 2001, while 51.7% of the country's male population was engaged in economically gainful activities, the corresponding figure for females

was only 25.6%. The participation rate among females in India continued to be low because of the following reasons: i) continuing prejudices against female participation in outdoor activities ii) comparatively low literacy rates among females iii) limited availability of jobs suitable for females iv) limited job opportunities in the face of unemployment and stiff competition amongst males and females.

Nine essential Features of Occupation Structure in India

1. Agriculture is Main Occupation:

At present about 66.7 percent of population In India is engaged in agriculture as against 71 percent in 1901. It has given rise to disguised unemployment hence, there is very little chance of reducing the burden of population on agriculture.

2. Less Development of Industries:

In USA 32 percent, in England 42 percent and in Japan 39 percent people are engaged in secondary sector. Compared to these countries around the world, only 17 percent of population in India depends on manufacturing industries, mining etc. It proves that India is industrially backward.

3. Unbalanced:

In India all production activities are not equally developed which indicates highly unbalanced Indian economy. Too much dependence on agriculture is a symptom of economic backwardness.

4. Less Income:

As agriculture yields less income than trade, per capita income and the standard of living of the people in India are low.

5. Small Villages:

Predominance of agriculture testifies that most of the people in India must be living in small villages and the number of people living in towns and cities must be very small. In India, 76 percent of population lives in rural areas and 24 percent in urban areas.

6. Backward Agriculture:

In India, although 64 percent of population is engaged in agriculture, it imports food grains from other countries, which indicates backward nature of our agriculture. On the other hand, in America 2 percent of population is engaged in agriculture which exports the surplus of food to other countries. Thus it becomes imperative that agricultural sector should be developed.

7. Increase in the Proportion of Agricultural Labourers:

The proportion of agricultural labourers has been rising during the period of planning. It underlines the fact that the number of wage-earners is increasing in agricultural sector.

8. Less Development of Tertiary Activities:

Tertiary activities like services, banking and communication, transport etc. are not much developed in India. In India, 20.5 percent of population is engaged in tertiary activities as against 66 percent in America, 56 percent in England and 49 percent in Japan.

9. Trends in Occupational Structure: There has been no significant change in the occupational structure of India for the last one century.

5.7. AGE STRUCTURE

One of the most commonly used methods of analyzing age composition is the age pyramid which is more commonly known as **age sex pyramid**. The age pyramid is constructed for depicting the age structure of a population along their vertical axis. In such pyramids age groups are at a regular interval say 5 years starting from 0-5 years and ending according to the age structure of the population under review. The horizontal axis of such pyramids represents the total population or the population of males or females separately either in numbers or in respective percentages. If the horizontal axis represents males and females separately, the pyramid is divided vertically into two halves, the right side representing the females and the left side representing the males. The shape of a pyramid varies from country to country depending upon the state of the demographic transition through which a country is passing. The shape is also significantly modified by a variety of factors like wars, epidemics, migration and baby booms. Wars generally have both short and long term impact upon the age composition of population. The heavy losses of young men during war times are immediately reflected by the shape of the pyramid. The long term effect of the wars in the form of reduced fertility rates continues to modify the shape of the pyramid in its own way for quite some time. Similarly, epidemics and famines which cause large scale abnormal deaths influence the shape of the pyramid. Migration, which is age and sex selective also, produces irregularities in the normal shape of the age pyramid.

There are three basic determinants of age composition of a population. These include nasality, mortality and mobility. Clarke (1972) rightly points out that these determinants of age structure are inter-dependent and any change in one of these may influence the other two and it is through these variables that the socio economic conditions influence the age structure. It is the fertility rates that determine the proportion of population in different categories. That is why many countries of Latin America, Africa and Asia which are characterized by high fertility rates

display a high proportion of population in the young age group. Since the longevity of life in these countries is also short, the proportion of old age group is also not very large. In most of the countries of these continents, about two-fifth of the population is below 15 years of age. In contrast, the countries with low fertility rate and with long expectation of life have about one fourth of their population in the young age group. But, the proportion of population in the older age group in these countries is relatively large. Thus, most of the countries of Europe and North America, which have completed their demographic transition, have an age composition where the proportion of young population is low and that of the old population is high. A continuous downward trend in fertility contributes to the increase in the proportion of population in older ages. Such has been the case with United States, North-western European countries, the CIS countries, Australia, New Zealand and Japan. (See figures)
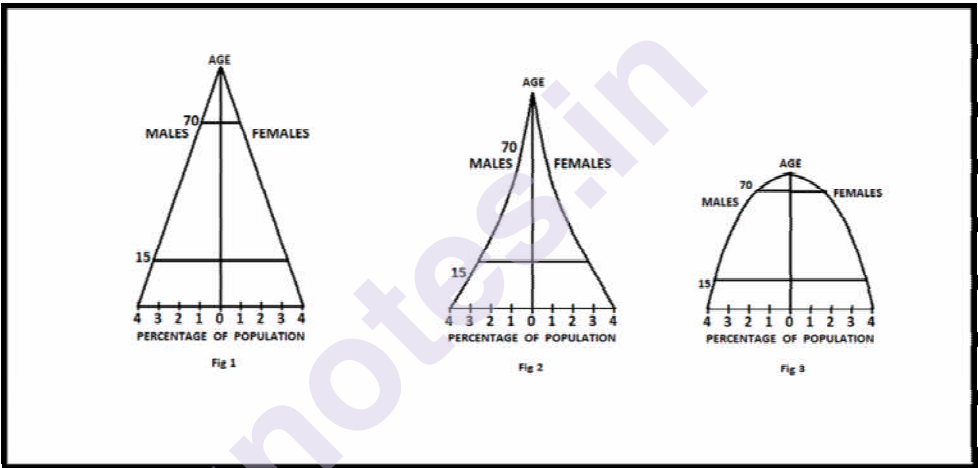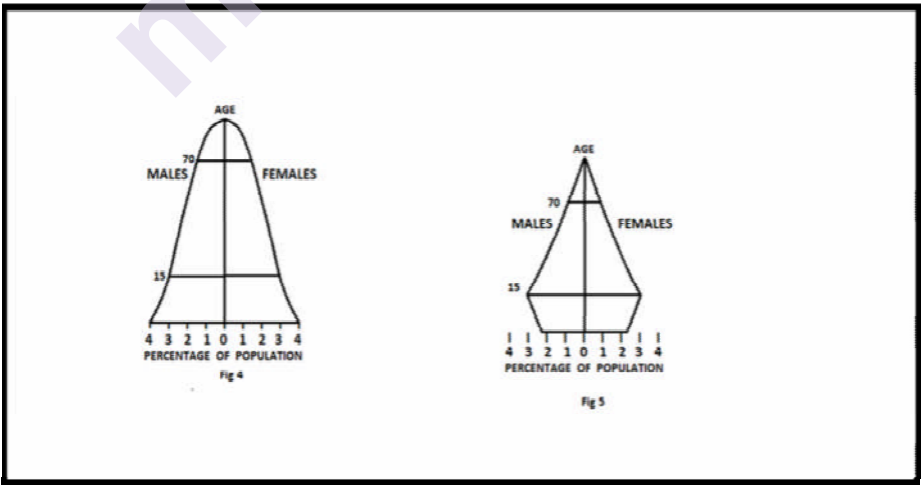

Fig 5.6

Fig 5.7

In figure1 we find a very wide base and slow slopes which indicate the demographic condition of those countries where both the birth rate and the death rate are high. This pyramid also shows large number of youth

and dependents in total population. Such a condition prevailed in majority of countries in the world in 17th and 18th century.

In figure 2 the base is wider than in the previous case and its slopes are becoming narrow more rapidly. The same is the case with the second stage of demographic transition with high birth rate and low death rate. Developing countries like India, Pakistan, Bangladesh and others are passing through the second stage where population increases at a rapid rate and the expectation of life as well as the ratio of dependent population also increases.

In figure 3 the pyramid assumes a rectangular stage indicating low birth and low death rates as is the case in United States of America and Eastern Europe before the Second World War. This is the third stage of demographic transition where the ratio of dependent population is also low and expectation of life is very high.

In figure 4 the bell shaped pyramid shows low death rate, but the increase in birth rate is slower than the previous case. It signifies the fourth stage of demographic transition where net increase in population is negligible but the ratio of youth and dependents is high in total population.

In figure 5 the pyramid reflects that the birth rate decreases at a faster rate than the death rate and if the situation continues then growth rate of population will be negative. At present Germany is passing through this phase of negative growth.

5.7.1. Age Groups

Generally the population is categorized into three broad age groups viz. i) the young ii) the adults iii) the old. The *young age group* includes children below 15 years of age. The proportion of population in this age group in any country is determined by the stage of demographic transition through which it is passing. Countries in the first stage of demographic transition have a large portion of the population in this age group. This age group is economically unproductive and the most expensive age group as it is to be provided with food, clothing and education. This age group is more or less dependent on the second age group. The *adult age group* comprises of people in the age group 15-64 years. This age group is biologically the most reproductive, economically the most productive and demographically the most mobile (Trewartha, 1969). It supports the bulk of other two age groups. It is generally seen that more developed nations have a larger proportion of the population in this age group while less developed countries have a comparatively lesser proportion in this age group. There is thus an inverse correlation between the levels of fertility and mortality and proportion of adults. This correlation gets disturbed only when the migration contributes to the growth of population significantly. In such cases since the migration is age selective, the proportion of adults gets determined largely by the magnitude of migration. It is common practice

to classify all those above 60 years of age as the *old age group*. The number of females in this age group is more than that of males because the proportion of population in this age group is governed largely by mortality rates. The proportion of population in this age group also varies regionally. Significantly it is low in case of less developed regions and high in more developed regions. This age group is also an economic burden upon the adult age group.

The disparity in the proportion of population below 15 years of age in the two types of countries, the developed and the less developed was attributable to the differences in the stage of their fertility transition. The developed world has completed its fertility transition and has reached a low level of fertility, sometimes even below their mortality levels. Most of the countries in the less developed world are still in their explosive second stage of demographic transition, adding large number of children to their population every year, thanks to the large population base coupled with long history of settlement. However, the population of the world is ageing both for more and less developed countries. While the proportion of people below 15 years of age has declined all over the world, the proportion in the age group 15-65years has increased more rapidly.

From amongst the various continents, the continent of Africa still continues to show age structure associated with high fertility and declining mortality. So no change was in the proportion of population below 15 years of age in the last three decades. In contrast Europe had the lowest proportion in the below 15 years and the highest proportion in the age group above 65 years. Between these two contrasting continents lie the continents of Asia, North America, Central and South America and Oceania. Of these, South America displays the largest part of the population below 15 years followed by Asia, while North and Central America had the highest proportion in the age group above 65 years.

Structure of the Population (2011, Census)

Age	Male	Female	Total	Percent
0-14	194 351 375	178 092 741	372 444 116	30,76
15-64	394 175 879	373 559 847	767 735 726	63,40
65+	32 370 123	33 815 210	66 185 333	5,47

5.8. INDIA'S POPULATION POLICY

While considering the population policy of India, it is necessary to concentrate on fertility as the single most important factor contributing to population change. Of the other two components, mortality and migration, the latter does not warrant serious consideration in the context of the

population policy of India. It therefore becomes imperative to study in detail, India's policy related to fertility and mortality. Since India has the distinction of being the first country in the world to launch a nationwide family planning programme with full government support, it is of interest to study the historical evolution of her anti-natalist policy and to critically access the programmes undertaken in pursuance of this policy in the light of her achievements over the years. The British rulers of the country were not interested in formulating any population policy for India, nor were they in favour of the birth control movement, which had started making its presence felt. Till the early twenties, the British measured the prosperity of their rule, to some extent, by the magnitude of the net addition to India's population. The degree of satisfaction over and the justification of the British rule in India was directly in proportion to the substantial increase in the population that the census revealed every decade. The British kept away from imposing family planning measures as it was not a norm in their homeland and besides they did not want to get involved in anything that would be considered as an intrusion on traditions customs and belief of Indians.

5.8.1. Family planning in Independent India (1951-96)

A review of the eight five year plans of the country indicates that family planning as a measure of population has been given high priority in each plan. The Draft Outline of the First Plan, published in July 1951 contained a section on "Population Pressure: Its Bearing on Development" which recognised that India had a population problem. The final version of the First Plan reiterated: "The pressure of population in India is already so high that a reduction in the rate of growth must be regarded as a major desideratum". (Govt. of India, 1953). The Second Five Year Plan (1956-61) pointed out that the rate of population increase was one of the key factors in development and underscored the fact that "a high rate of population growth is bound to affect adversely the rate of economic advance and living standards per capita." It is important to note that the Planning Commission has never considered a population control programme as an alternative to socio-economic development. While recognising that with improved public health programmes and lower death rates, the population pressure was likely to increase, it accepted the need for curbing birth rates.

The Third Five Year Plan (1961-66) while considering population control in the context of long term development stated that the objective of stabilising the growth of population over a reasonable period must be at the very centre of planned development. The Fourth Five Year Plan (1969-74) viewed population not only from the point of view of economic development, but also from that of social change. Even far reaching changes in social and economic field will not lead to a better life unless population growth is controlled, was agreed upon in this plan.

The Draft Fifth Five Year Plan (1974-79) included family planning in the context of the National Minimum Needs Programme. It accorded a high priority to population control and based the demographic projections for the Plan Period on certain assumptions regarding a reduced growth rate, a birth rate declining much faster than death rate and an effective family planning programme. The final version of the Fifth plan was published only in 1976, and it incorporated the National Population Policy announced in April 1976. The Fifth Plan laid down targets "A target for a birth rate of 25 per thousand and a population growth rate of 14% by the end of the Sixth Plan Period. The Government that came to power in March 1977 ruled out any element of compulsion in family planning programmes.

The Sixth Five year Plan (1980-85) earmarked Rs.10,100 million for the family planning programme. The long term demographic goal recommended by the Working Group on Population Policy appointed by the Planning Commission was approved by the National Development Council. It involves reducing the net reproduction rate(NRR) to one by 1996 for the country as a whole and by 2001 in the states. The implications of this long term demographic goals are as follows:

a. The average size of the family would be reduced from 4.2 children to 2.3 children.

b. The birth rate per thousand population would be reduced from the level of 33 in 1978 to 21.

c. The death rate per thousand population would be reduced from about 14 in 1978 to 9 and the infant mortality rate would be reduced from 129 to 60 or less.

d. As against 22 percent of the eligible couples protected with family planning, 60% would be protected.

e. The population of India will be around 900 million by the turn of the century and will stabilise at 1200 million by the year 2050AD (Govt. of India,1985)

In the Seventh Five Year Plan (1985-90), the outlay for the family welfare programme was 3256 crores. It was pointed out that in view of the progress made in the sixth plan, the goal of reaching a net reproduction rate of unity could be reached only by 2006-11, instead of reaching it by the year 2000 AD as envisaged in the Sixth Five Year Plan. The following goals for the year 1990 were set:

a. Effective couple protection rate:42%

b. Crude birth rate: 29.1 c. Crude death rate:10.4

d. Infant mortality rate: 90.0

In the Eighth Plan (1992-97), the total outlay for the Family Welfare Programme was Rs 6500 crores. Keeping in view the level of

achievement, the long term demographic goals for the country have been revised. It has been stated in the Eighth Five Year Document that the net reproduction rate of one would now be achievable only in the period 2011-16 AD and not by the year 2000AD as envisaged in the National Health Policy. Accordingly, the goals of the crude birth rate, crude death rate and natural population growth rate to be achieved by 1997 were also revised. The latest report of the Technical Group on Population Projections constituted by the Planning Commission has estimated that the replacement level ofNRR-1 is achievable by 2026 and beyond.

5.8.2. The Family Planning Programme

The family planning programme since its very inception in 1952, has been the responsibility of the Ministry of Health. It is a centrally sponsored and financed programme implemented by the states. It began very modestly with the creation of a Family Planning Cell in the Planning and Development Section of the Directorate-General of Health Services in April 1952. In 1966, several important developments concerning the family planning took place. A full fledged Department of Family Planning was established within the Ministry. A Cabinet Committee of Family Planning, initially headed by the Prime Minister and later by the Finance Minister was constituted at the Central level. The function of the Cabinet Committee was to give proper direction and policy clearances and to regularly review the progress of the programme. The Central Family Planning Council, with the Minister of Health and Family Planning as its Chairman was set up in1966.At the State level, the State Family Planning Bureau is headed by the Joint Director, Family Planning and Maternal and Child Health, and an officer of the rank of a Secretary/Deputy Secretary heads the cell in the Secretariat. In 1977 when the Janata Government came into power, the family planning programme was renamed as the family welfare programme to make it more acceptable and to denote that it had a wider base, so that it could also include various measure of family welfare for the improvement of the quality of human life. The Family Planning programme has always been the responsibility of the Ministry of Health which is one of the weakest and politically unimportant ministries. This may have been a reason for its poor performance over the years.

Since the inception of family planning programme in 1952, there has been some sort of rigidity in the implementation of the programme which perhaps is not a correct stance to adopt. The programme adopted a very cautious approach. The First Five Year Plan emphasized field research with a view to identifying values norms, customs and beliefs regarding "child bearing". The natural method of family planning (the Rhythm Method) was considered to be the most appropriate for the Indian masses and this method was propagated. Since India was the first country to adopt family planning, there was no model that she could follow. The only model that was available for this purpose was the one used by the Planned Parenthood Organisations in the West, which set up family planning clinics and those who needed family planning were

expected to take fullest advantage of these facilities. The assumption was that people themselves would reach out and avail the facilities limited the scope of creating a wide base. The approach was, therefore, not considered suitable for a developing country like India.

Perhaps the most important approach to family planning is the "integrated approach" wherein family planning was linked to maternal and child health services. The rationale for such integration is that when infant and child mortality rates are high, as in India, parents cannot be expected to limit the size of their families unless they have some confidence that the children they already have will survive till adulthood. Such confidence can be created only by providing preventive and curative medical services for children. Yet another method of family planning measure as adopted in India was the "camp approach". As early as 1961, the first vasectomy camp was held in Maharashtra where 1400 men were sterilised in 3 days. In 1970, a massive vasectomy camp was held in Ernakulam district of Kerala where a total of 15,005 vasectomies were performed over a period of one month. Encouraged by the success in Ernakulam, the Department of Family Planning allowed the states to organise such massive camps and provided additional support. By 1973-74 after an incident wherein eleven men died of tetanus following a vasectomy, it was felt that while the number of vasectomy operations did touch a record level, in a larger perspective, such camps were counterproductive. Hence "reproductive and child health approach" was adopted.

One striking event in relation to the population problem in general and family planning programme in particular needs special mention. During the general elections to the Parliament in 1977 the issue of family planning was highly criticised. Hence the Family Planning programme received a setback. In July 1993, the Government of India appointed an expert group to prepare a parliamentary draft of the National Population Policy. A major paradigm shift in the Population policy has been suggested. Rather than vertical planning of the Programme, democratic, decentralised planning and setting up of demographic goals at the grass root level is suggested.

The Expert Group has set the following long term socio demographic goals at the national level for the year 2010.

a. Implementation in totality of the Minimum Needs Programme, and in particular, universalisation of primary education and reduction in the dropout rates of primary and secondary school children, both boys and girls, abolition of child labour and priority to primary health care.

b. Reduction in the incidence of marriage of girls below the age of 18 years to zero.

c. Increase in the percentage of deliveries conducted by trained personnel to 100%

d. Reduction in maternal mortality rate to less than 100 per 100,000 live births.

e. Universal immunisation of children against T.B, poilo, diphtheria, whooping cough, tetanus and measles and reduction in the incidence of diarrhoea and acute respiratory infection.

f. Infant Mortality Rate (IMR) of 30 per thousand live birth and a sharp reduction in child mortality rate as well as sharp decline in the incidence of low birth weight babies.

g. All individuals to have access to information on birth limitation methods, so that they have the fullest choice in planning their families.

h. Universal access to quality contraceptive services in order to reduce Total Fertility Rate (TFR) from 3.6 in 1991 to2.1 by the year 2010.

i. Containment of AIDS and sexually transmitted diseases.

j. Full coverage of registration of births deaths and marriage.

This population policy, if implemented by individuals and governments, irrespective of religion, caste or political affiliation will help to provide a better common present and future to all our people. It is being introduced in a year of historic transition in the evolution of political instruments capable of enabling people in villages and towns to guide and shape their own destiny. If our population policy goes wrong, nothing else will have a chance to go right.

It may be concluded from the study that mortality influencing policy of the country whether explicitly stated or indirectly implied contributes to the philosophy that an investment in health is investment in man for improving the quality of human life. Though India is still far behind from reaching the ideal "Health for All by 2000", the very fact that concrete steps are being taken to actualise this ideal is heartening. To what extent the country is successful in reaching this ideal in terms of the goals laid down with respect to the various health indicators already specified remains to be seen.

5.9. SUMMARY:

In this chapter it has already been explained that there are various opinions of the anthropologists since the time of Lewis Morgan about the definition of tribe. 19th century scholars viewed tribal societies in the light of evolutionary theory. Several ethnographic studies of a tribal community have been made to understand the exact situation of the same in the present world. Tribals in India constitute 7.85% of the total population. The quality of life of these people is poor. Since independence the Government of India emphasized on rapid educational development of the tribals present in India to bring them into the mainstream of its population. We have also learnt that around the world

there are innumerable religious groups that differ in many ways. India being a land of diversities shows it in the spheres of religion too.

Occupational structure means the distribution of working people across different industries and sectors. It showed very little sign of change during the British rule in India and has remained almost static over the years. During the period of the British rule the Indian economy was in a state of stagnation. After independence there has been little shift in the occupational distribution of the work force.

The age structure is one of the tools that demographers use to understand population. It is often called population pyramid. But it is not always pyramidal in shape. The age structure of a population is the distribution of people among various ages.

5.10. CHECK YOUR PROGRESS/ EXERCISE

1.   **True and false**

a.   The term 'tribe' is derived from the Latin word 'tribus' which was earlier used by the Romans to designate the divisions in society.

b.   The main occupation of the gujjars is rearing of cattle which are also the main source of income.

c.   The Gonds are considered as the third largest and most widely distributed tribal groups in India.

d.   Europe still continues to show age structure associated with high fertility and declining mortality.

e.   Societies where less than 15% of workers are in tertiary activities have been called as primary civilizations and those having more than 40% of the workers in tertiary services as tertiary civilization.

2. **Fill in the blanks**

1) Tribes are dependent on their land for their _____and are largely self sufficient.

2) the Gujjar tribe reside in _____.

3) The _____comprise the largest tribal group in India.

4) khasi tribe is mainly found in the state of _____the Khasi jaintia hills in _____and in the states of Panjab, Uttar Pradesh and Manipur, West Bengal and Jummu and Kashmir.

5) _____is the ancient among all other types of religion in India.

3. Multiple choice question

Contemporary Issues

a. The Proto-Australoids group is characterised

i. by dark skin colour, sunken nose and lower forehead.

ii. by fair skin colour, sunken nose and broad forehead.

iii. by dark skin colour, sunken nose and lower forehead.

b. The tribals mostly use

i. modern technology which enhances the use of available natural resources.

ii. simple technology which restricts the use of available natural resources

iii. obsolete technology which restricts the use of available natural resources

c. The tribals carry two economic activities

i. hunting & gathering at the same time

ii. fishing & cropping at the same time

iii. hunting & tailoring at the same time

d. The shape of a pyramid in age structure varies from country to country depending upon

i. the state of the agricultural development through which a country is passing.

ii. the state of the industrialization through which a country is passing.

iii. the state of the demographic transition through which a country is passing.

e. The religious doctrines of Sikhism were produced

i. by a line of ten gurus and the most important of all gurus is Guru Nanak.

ii. by a line of twelve gurus and the most important of all gurus is Guru Nanak

iii. by a line of five gurus the most important of all gurus is Guru Nanak

4.   Answer the Following Questions

1. Define tribe. State the characteristics of tribes in India.

2. What are the major problems faced by the tribals in India?

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3. What are the steps taken for the developments of the tribals in India?

4. State the region wise distribution of tribal population in India.

5. Write short notes on a. Nagas b. Gonds

6. What are the major religious groups present in India?

7. What do you know about the occupational structure of India?

8. Write a short note on Population Policy of India.

5.11. ANSWERS TO THE SELF LEARNING QUESTIONS.

1.a.true

1.b.true

1.c. false, Santhals

1.d.false, Africa

1.e. true

2.a. livelihood

2.b. Himachal Pradesh

2.c. Gonds

2.d. Assam, Meghalaya

2.e. Hinduism

3.a.i

3.b.ii.

3.c.i.

3.d.iii

3.e.i

5.12. TECHNICAL WORDS:

1. **Tribe**: a social group made up of many families, clans, or generations that share the same language, customs, and beliefs.

2. **Occupational structure:** It is the mix of different types of occupations found in a society and describes how people are engaged in different sectors of the economy namely, primary, secondary and tertiary the sector.

3. **Age structure:** The age structure of a population is the distribution of people among various ages. It is a useful tool for social scientists.

4. **Population policy**: it is defined as deliberately constructed or modified institutional arrangements and/or specific programs through which governments influence, directly or indirectly, demographic change.

5.13. TASK

1. In a chart make a list of tribes and their characteristics present in India.

2. In a chart write what is occupational structure explain it with proper diagram.

3. In a chart make a list of the problems faced by the tribes in India.

5.14. REFERENCES FOR FURTHER STUDY

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