

**MASTER OF ARTS
SOCIOLOGY
CENTRE FOR OPEN AND
DISTANCE LEARNING
(CODL)**



**MSO 304: SOCIAL DEMOGRAPHY
BLOCK II**

**CENTRE FOR OPEN AND DISTANCE LEARNING
TEZPUR UNIVERSITY (A CENTRAL UNIVERSITY)
TEZPUR, ASSAM - 784028
INDIA**

Vision

To grow to be a leading centre for human resource development through distance, open and universal learning system.

Mission

To provide quality higher education at door step through barrierless, flexible and open learning mode in conformity with national priority and societal need.

Objective

- **To offer degree, diploma, certificate level programme of study through distance learning in various emerging subjects across the disciplines.**
- **To offer job oriented and vocational programmes in flexible terms in the line of the national and regional level demand of manpower.**
- **To offer various programmes under lifelong learning contributing to the local and regional level requirements and as per the need of the society at large.**
- **To undertake various research and academic activities for furtherance of distance education in the region.**
- **To contribute to conserve and promote cultural heritage, literature, traditional knowledge and environment conducting short programmes, workshops, seminars and research in interdisciplinary field.**

MSO 304: SOCIAL DEMOGRAPHY



CENTRE FOR OPEN AND DISTANCE LEARNING

TEZPUR UNIVERSITY (A CENTRAL UNIVERSITY)

TEZPUR, ASSAM-784028

INDIA

MSO-304: SOCIAL DEMOGRAPHY

ADVISORY COMMITTEE

Prof. Chandan Kumar Sharma	Professor & Head, Dept. of Sociology, Tezpur University
Prof. Kedilezo Kikhi	Professor, Dept. of Sociology, Tezpur University
Dr Amiya Kumar Das	Assistant Professor, Dept. of Sociology, Tezpur University
Ms Ankita Bhattacharyya	Assistant Professor, Centre for Open and Distance Learning, Tezpur University

CONTRIBUTOR

Module I & II	Ms Denim Deka	Assistant Professor, Mahapurusha Srimanta Sankaradeva Viswavidyalaya
--------------------------	---------------	--

EDITOR

Prof. Anup Saikia	Professor and Head, Dept of Geography, Gauhati University
-------------------	---

Copyright © reserved with Centre for Open and Distance Learning (CODL), Tezpur University. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from CODL.

Any other information about CODL may be obtained from the Office of the CODL, Tezpur University, Tezpur-784028, Assam.

Published by the Director on behalf of the Centre for Open and Distance Learning, Tezpur University, Assam.

BLOCK II

MODULE III: STRUCTURE OF POPULATION

UNIT 6: AGE AND SEX STRUCTURE OF POPULATION

UNIT 7: POPULATION PYRAMID

UNIT 8: HUMAN DEVELOPMENT INDEX

UNIT 9: POPULATION POLICIES (FERTILITY-RESPONSIVE, MORTALITY-RESPONSIVE, MIGRATION-RESPONSIVE)

UNIT 10: PROGRAMMES (INITIATIVES AND CRITIQUE)

MODULE IV: DIMENSIONS OF POPULATION

UNIT 11: SOCIAL DIMENSIONS OF POPULATION EDUCATION

UNIT 12: POPULATION AS AN ISSUE IN A PLURAL SOCIETY

UNIT 13: POPULATION AND HEALTH

UNIT 14: POPULATION AND DEVELOPING COUNTRIES

TABLE OF CONTENT

MODULE III: STRUCTURE OF POPULATION	
UNIT 6: AGE AND SEX STRUCTURE OF POPULATION	3-15
6.1 Introduction	
6.2 Objectives	
6.3 General Trends in Age and Sex Structure	
6.3.1 Sociological Analysis of Age and Sex Structure	
6.3.2 Youth Dependency Ratio	
6.3.3 Aged Dependency Ratio	
6.4 Social Characteristics of the Aged	
6.4.1 Characteristics of Age, Sex and Marital Feature	
6.4.2 Rural, Urban, Educational Characteristics	
6.5 Social Consequences of Changes in Age and Sex Structure	
6.5.1 Social Consequences of Changes in the Size of Child Population	
6.5.2 Social Consequences of Changes in the Size of Working Population	
6.6 Summing Up	
6.7 Questions	
6.8 Recommended Readings and References	
UNIT 7: POPULATION PYRAMID	16-28
7.1 Introduction	

<p>7.2 Objectives</p> <p>7.3 Population Pyramids</p> <p> 7.3.1 The Utility of Population Pyramids</p> <p> 7.3.2 Importance of Population Pyramids</p> <p> 7.3.3 Categories of Population Pyramids</p> <p>7.4 Population Pyramids of Developed Societies</p> <p>7.5 Population Pyramids of Developing Societies</p> <p>7.6 India's Age-sex pyramid</p> <p>7.7 Types of Population Pyramids</p> <p>7.8 Summing up</p> <p>7.9 Questions</p> <p>7.10 Recommended Readings and References.</p>	
UNIT 8: HUMAN DEVELOPMENT INDEX	29-40
<p>8.1 Introduction</p> <p>8.2 Objectives</p> <p>8.3 Definition of Human Development Index</p> <p> 8.3.1 Origin of Human Development Index</p> <p> 8.3.2 Need for Human Development</p> <p> 8.3.3 Method for constructing Human Development Index</p> <p>8.4 Gross National Product and Human Development Index</p> <p> 8.4.1 Aspects of Human Development Index</p> <p> 8.4.2 Criticism against Human Development Index</p> <p>8.5 India's Human Development Index</p> <p> 8.5.1 Human Development Approach and 2030 Agenda</p> <p> 8.5.2 Future Possibilities of Human Development Index</p> <p>8.6 Summing Up</p> <p>8.7 Questions</p> <p>8.8 Recommended Readings and References</p>	

UNIT 9: POPULATION POLICIES (FERTILITY-RESPONSIVE, MORTALITY-RESPONSIVE, MIGRATION-RESPONSIVE)	41-52
9.1 Introduction 9.2 Objectives 9.3 Approaches to Population Policies 9.3.1 Fertility-Responsive Policies 9.3.2 Indirect Measures to Control Fertility Behaviour 9.3.3 Women in the Workforce and in the Family 9.4 Mortality-Responsive Policies 9.4.1 Health for All 9.4.2 Indirect Measures of National Health Policy. 9.5 Migration-Responsive Policies 9.5.1 Migration Policy 9.5.2 Need of Rural Development 9.6 Summing up 9.7 Questions 9.8 Recommended Readings and References	
UNIT 10: PROGRAMMES (INITIATIVES AND CRITIQUE)	53-64
10.1 Introduction 10.2 Objectives 10.3 Birth of the Family Planning Programme 10.3.1 Family Planning Association of India 10.3.2 Population Planning in India 10.4 Official Population Policies and Programmes 10.4.1 First to Fourth Five Year Plan 10.4.2 Fifth to Eight Five Year Plan 10.4.3 India's Commitment to FP 2020 10.5 International Women's Movement	

10.5.1 Current Policies	
10.5.2 Critique of the Population Programmes and Policies	
10.6 Summing Up	
10.7 Questions	
10.8 Recommended Readings and References	
MODULE IV: DIMENSIONS OF POPULATION	
UNIT 11: SOCIAL DIMENSIONS OF POPULATION EDUCATION	66-78
11.1 Introduction	
11.2 Objectives	
11.3 Meaning of Population Education	
11.3.1 Social Dimensions of Population Education	
11.3.2 Population Education in India	
11.3.3 Population Dynamics	
11.4 Population and Quality of Life	
11.4.1 Health and Environment	
11.4.2 Emergency Preparedness	
11.5 Population and Literacy	
11.5.1 Mass Media and Population Education	
11.5.2 Effects of Unchecked Population Growth	
11.6 Summing Up	
11.7 Questions	
11.8 Recommended Readings and References	
UNIT 12: POPULATION AS AN ISSUE IN A PLURAL SOCIETY	79-91
12.1 Introduction	
12.2 Objectives	

12.3 Definition of a Plural Society 12.3.1 Characteristics of a Plural Society 12.3.2 Pluralism as a Concept 12.3.3 India as a Plural Society 12.4 Types of Plural Societies 12.4.1 Social Structure and Social Groups 12.4.2 Stratified Plural Societies 12.5 Population in a Plural Society 12.5.1 Migration 12.5.2 Implication of Population Growth 12.6 Summing Up 12.7 Questions 12.8 Recommended Readings and References	
UNIT 13: POPULATION AND HEALTH	92-104
13.1 Introduction 13.2 Objectives 13.3 Health of Population in Society 13.3.1 Population Health 13.3.2 National Priorities and Goals of Health 13.3.3 Importance of Population Health 13.4 Health Status Issues 13.4.1 Health Notions in Plural Systems 13.4.2 Preventive Strategies of Population Health 13.5 Inequity in Healthcare Access 13.5.1 Predictions of Health in Future	

13.5.2 India's Health System of 2022	
13.6 Summing Up	
13.7 Questions	
13.8 Recommended Readings and Reference	
UNIT 14: POPULATION AND DEVELOPING COUNTRIES	105-117
14.1 Introduction	
14.2 Objectives	
14.3 Population in Developing Countries	
14.3.1 Population Growth and Food Supply	
14.3.2 Population Growth and Housing	
14.3.3 Population Growth and Human Rights	
14.4 Poverty and Economy in Developing Countries	
14.4.1 Population Growth and Poverty	
14.4.2 Population and Economy	
14.5 Effects of Economic Development	
14.5.1 Economic and Social Development and Mortality	
14.5.2 Effects of Economic Development on Population Growth	
14.6 Summing Up	
14.7 Questions	
14.8 Recommended Readings and References	

BLOCK INTRODUCTION

This Block comprises of Modules **III** and **IV** of MSO 304: Social Demography. **Module III** deals with the structure of population. **Unit 6** explores the age and sex structure of population. This unit will help the learners in making a sociological analysis of the characteristics associated with age and sex structure. **Unit 7** will help the learners to understand population pyramid. Here the learners understand the age-sex structure through the lens of population pyramid. **Unit 8** will introduce learners to the Human Development Index. **Unit 9**, on the other hand, explores different population policies. Here, the learners will get an insight into the fertility, mortality and migration influencing policies. **Unit 10** deals with population programmes such as the family planning programme.

Module IV is dedicated to dimensions of population. **Unit 11** explores the social dimensions of population education. This unit will help the learners make an analysis of population education with reference to health, environment, literacy and mass media. **Unit 12** will analyse population as an issue in a plural society. **Unit 13** deals with the various aspects associated with population and health. **Unit 14** explores the concept of population in the context of developing countries.

MODULE III: STRUCTURE OF POPULATION

UNIT 6: AGE AND SEX STRUCTURE OF POPULATION

UNIT STRUCTURE

6.1 Introduction

6.2 Objectives

6.3 General Trends in Age and Sex Structure

6.3.1 Sociological Analysis of Age and Sex Structure

6.3.2 Youth Dependency Ratio

6.3.3 Aged Dependency Ratio

6.4 Social Characteristics of the Aged

6.4.1 Characteristics of Age, Sex and Marital Feature

6.4.2 Rural, Urban, Educational Characteristics

6.5 Social Consequences of Changes in Age and Sex Structure

6.5.1 Social Consequences of Changes in the Size of Child Population

6.5.2 Social Consequences of Changes in the Size of Working Population

6.6 Summing Up

6.7 Questions

6.8 Recommended Readings and References

6.1 INTRODUCTION

You must be familiar with the concept of age and sex. The composition of age and sex is an important criterion in determining the demography of a region. Proper distribution of age and sex of a population requires prior planning, as it can contribute to the development of the overall demographic scenario of a region or country. To ascertain the development and growth in the levels of economic, cultural and societal development an understanding of the trends of age and sex distribution is vital. The structure of a population may vary depending on the number of males and females in a region. The age composition of a population is

divided into age group segments of young, adult and old; a division that has an important influence and bearing on the social and economic growth of a country. The sex composition is defined by sex ratio. Sex ratios are expressed as the number of females per 1000 males and this naturally varies among countries. The balance of sexes forms a crucial element in maintaining the social and economic balance of a country, region or community. Sex ratios of a society, community or country are generally the outcome of the interplay of various attributes like fertility, mortality, sex-selective abortion and at times even the cultural norms prevailing in a society. Thus, this unit will provide a base for understanding age and sex composition in an area and the sociological trends involved with it.

6.2 OBJECTIVES

After going through this Unit you will be able to:

- Discuss the trends in age and sex structure;
- Compare the dependency ratio of the youth and the aged;
- Analyse sociologically the characteristics associated with age and sex structure.

6.3 GENERAL TRENDS IN AGE AND SEX STRUCTURE

To undertake a sociological study of the changes taking place in a society's structure, it is necessary to look into the age and sex structure of the population. Both the reproductive and socio-economic aspects of society are influenced by the age-sex structure of a population. Although male and female populations seem to be nearly equal to each other yet in the lower age groups, males generally outnumber females. Further, the female population tends to outnumber the male population at the upper age groups. In India, there is a declining trend in the sex ratio which is an indication of the shortage of females per 1000 males. Though an exact cause(s) of the overall lower trend of sex ratio cannot be precisely ascertained these may be attributed to

sex ratio at birth where males are favoured over females, female infanticide, the higher male immigration rates of, inadequate medical care provided to females and so on.

A society in general is divided on the basis of males and females and the age group of both the sexes. Age groups are generally divided into the following categories: young population from 0 to 14 years, the working (or the economically productive) population from 15 to 59 years and the aged population of 60 years and above. It should be noted that, unlike India, some countries consider the working age population as those between 15-64 years of age.

Stop and Read

Infant (male and female) mortality rates are higher in India compared to those in developed countries.

6.3.1 Sociological Analysis of Age and Sex Structure

The study of a society or country's demographic structure can be better understood on the basis of the factors of age and sex. Individuals are not simply placed in specific age and gender compartments but are also assigned certain status and roles in society on the basis of their age and sex specificities. To indicate the changes taking place in the socio-economic and cultural backgrounds of society, knowledge about the distribution of age and sex of a population is essential. The effects on demographic processes by socio-economic factors and vice-versa or the close relationship between the two may be studied on the basis of age and sex characteristics.

The age and sex structure of a population are two distinct features but generally, both are studied together. The sex-structure is considered to be less complex than the age structure as it is easy to determine the gender for any specific social cause but making a distinct analysis of a specific age group is slightly more complicated. This happens as the exact date of birth may not be easy to find out.

The sex-structure is defined by the sex-ratios of different ages and the ratios are determined by various social factors of birth, death, migration and other demographic features. The ratio is the most known common form of measuring the balance between males and females and also assists in making a comparative study between the sexes. For example, if there are an equal number of males and females, then the sex ratio is said to be 100. When the males are more than females, it would be over 100, which is called masculinity ratio and would indicate a lower sex ratio. While if the males are less than females, it would be less than 100, which is called femininity ratio and would indicate a higher sex ratio; in the Indian context agencies like the United Nations and several countries define sex ratios as the number of males per 100 females (WHO, 2019)

It is to be noted that the anti-female ratio in India is very dominant and this adversely affects the overall sex ratio. The social reasons contributing to a masculinity ratio are female foeticide, female infanticide, unequal treatment to male and female and also under-enumeration of female babies (Premi, 2003).

Stop and Read

To describe the age distribution of a population, a measure known as **dependency ratio** is used. This ratio assumes that in a society

everyone is a consumer but only some are both consumers and producers. The producers are smaller in number and are economically active; the consumers depend upon producers or the economically productive segment of the population.

6.3.2 Youth Dependency Ratio

The youth are considered to be the children below the age group of 15 years. It needs to be noted, however, that in some societies children are forced or required to work due to economic compulsions, cultural conditions and personal grounds, whereas, in other societies, the youth or children are not required to work because of the age factor. In this case, the youths are dependent on the productive population to meet their sustenance requirements and needs.

To calculate the youth dependency-ratio, a specific measure is used. It is calculated by dividing the number of persons aged 0-14 years by the number of persons who are 15-59 years and multiplying the resulting quotient by 100, as shown below.

Note:

$$\text{Young Dependency} = \frac{\text{Percentage of population aged 0-14 years}}{\text{Percentage of population aged 15-59 years}} \times 100$$

The youth dependency ratio in India had witnessed a declining trend from the period 1971-91. This can be attributed to the fact that the size of the population under 15 years of age has been reducing. Developing societies have a higher rate of youth dependency ratio because of the inequality of resources and socio-cultural traditions. To achieve population balance and stability, it is required to start the process of societal development at the earliest.

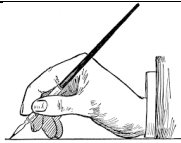
6.3.3 Aged Dependency Ratio

The aged dependency ratio refers to the old population i.e. above 60 years who are dependent on the working population. In India, the aged population is small in terms of proportion to the total population; yet the dependency ratio of the aged population is high. This is because the rate of work participation of the aged population in India is relatively low. Additionally, lower longevity (this is however changing), unsatisfactory social care services and comparatively low quality of living conditions (compared to developed societies) for the aged population. The aged dependency-ratio is calculated by dividing the number of persons aged 60 years and above by the number of persons in the 15-59 years group and multiplying the resulting quotient by 100

$$\text{Note: Old dependency ratio} = \frac{\text{Percentage of population aged 60 and over}}{\text{Percentage of population aged 15-59}} \times 100$$

Developed countries are able to support the aged population due to the fact that the proportion of dependents are small in number. In addition to that, developed countries have attained a favourable stage of development that can support and assist the dependents. Higher income levels and better infrastructure in developed countries enable a better quality of life for the aged segment of the population relative to developing countries.

CHECK YOUR PROGRESS

	1. What is dependency ratio?

2. What is youth dependency ratio?	

6.4 SOCIAL CHARACTERISTICS OF THE AGED

Ageing is an unavoidable process of human growth and is a global phenomenon. Ageing is associated with certain demographic factors. The aged population residing in India has certain social characteristics apart from comprising of a small segment of the total population (although this is gradually changing). Due to differences in regional spaces and socio-economic backgrounds, the features of the aged vary across states of India. Elderly couples or single male and female aged persons show considerable differences in age, mortality rates, educational levels and percentage of settlement in rural or urban areas. The social sphere coupled with various situations may differ for both sexes within the aged population.

6.4.1 Characteristics of Age, Sex and Marital Status

Age is increasingly associated with various health-related ailments and issues of adjustment with families and/or society. With age, the roles and functions of people change and differs between sexes. In general, women are said to live more than men. In India, due to improvement and progress in health facilities and technologies, female longevity, as well as sex ratio, has increased with age. As a process of ageing, the patterns and functions of life are affected in the case of both men and women in the domestic and work spheres.

The marital status or the state of being a married couple plays a bright and positive role. An elderly married couple can provide companionship for each other and thus, providing psychological, physical and socio-cultural support to each other. But it is to be noted the period of widowhood or that of the elderly female following the demise of their spouse could become a period of stress as their social and familial situations change. It is notable that even though widows may become dependent on their working children, the former is given a respectable

position in families owing to cultural norms; though some elderly widows are not always fortunate in this regard and may be neglected or face abuse at the hands of family members. In India, the proportion of widows is slightly higher than widowers.

6.4.2 Rural, Urban, Educational Characteristics

The elderly population comprising males and females reside in rural as well as urban areas. The Census of India shows that the elderly population is more in rural areas and less in urban areas. The growth rates of the urban elderly population (both male and female) are much higher than those in of the elderly in rural areas. The old age male mortality is higher than of females and there is a noticeable increase in the growth of elderly males in rural and urban areas.

Education is an important yardstick of social status. The levels of education of the elderly population vary both in terms of gender and the rural-urban divide. There are differences in literacy levels among elderly populations. Levels of formal education are at times very low. In urban and rural areas, literacy levels of elderly women are lower than those for elderly men according to Census of India,1991. The census report of 2011 highlights the literacy level for elderly males at 50.5 per cent in rural areas while it stands at 18.4 per cent for elderly female. In urban areas, the Census of India, 2011 highlights the literacy rate of elderly males at 79.6 per cent and 52.7 per cent for elderly females.

CHECK YOUR PROGRESS



1. What role does marital status play in the lives of the aged?

2. How does education serve as a yardstick of social status among the aged?

6.5 SOCIAL CONSEQUENCES OF CHANGE IN AGE AND SEX STRUCTURE

The age and sex structure plays an important role in bringing about social change. Ascribed characteristics like age and sex also determine the needs and functions to be carried out in order to reach the desired status through educational, socio-cultural, economic, marital and reproductive aspects. Although the achieved characteristics differ by age-group and gender, yet the differences are attributed to biological and social aspects as well. For instance, a certain age-group of 15-25 years might be pursuing education and are regarded as the non-productive population, while the same age group might be an economically productive population owing to personal or social needs. Children are actually considered to be non-productive but in certain some social groups, driven by poverty or similar circumstances, children (child labour) might have to work to make both ends meet. In the case of elderly populations who retire from their socially recognized productive work (service), they are sometimes assigned social roles (such as imparting traditional values to younger ones or looking after grandchildren) by the society and family.

6.5.1 Social Consequences of the Changes in the Size of Child Population

The size of the child population in India and elsewhere shares a close relationship with certain social aspects. Children being young dependents exert pressure on the working population to meet their education, socio-cultural, socio-psychological, and health care and other requirements. For instance, the large size school going young population requires considerable investment and resource allocation. The proportion of literate children (both male and female) in rural areas tend to be higher in the primary level of education while it tends to slow down at higher levels of education in comparison to literate children of urban areas. Some problems like improper resource allocation in rural and urban areas for school educational development and poor quality of education for children in rural areas hamper the progress of school education.

In educating a child, both the family and school in rural areas may lack proper facilities to provide suitable environments for effective socialization, academic achievements and socio-emotional growth. While in urban areas and in case of economically productive families, both the school and family might be able to help children in their academic pursuits and socialization.

6.5.2 Social Consequences of the Changes in the Size of Working Population

Some children in parts of India remain under-nourished on account of poverty and low socioeconomic levels. Such disadvantaged children are not always able to serve as skilled and productive labour at the adult stage.

The socio-economic conditions prevailing in a society may not always favour or permit additions to the working population which could be problematic. For example, increasing unemployment levels and

underemployment, altered living conditions due to changes in the quality of work performance, skill enhancement and presence of inequalities. Likewise, gender gaps created by more men than women joining the workforce and women having to be engaged both in domestic and productive work; rural to urban migration (wherein young males migrate in search of employment leaving behind family members and women) and employment in the informal sector due to unemployment, limited diversification of the economy and lack of proper utilization of resources are problematic issues.

6.6 SUMMING UP

- A society, in general, can be divided on the basis of sex as males and females and on the basis of different age groups, among both sexes.
- The sex-ratios of different ages and the ratios determined by various social factors of birth, death, migration and other demographic features is called the sex structure.
- A higher rate of youth dependency ratio is found in developing societies or countries because of the presence of inequality of resources and socio-cultural traditions.
- The socio-demographic environment of developed countries enables them to support the aged population because the proportion of dependents are small in number. However, this is changing as societies start 'greying' and the proportion of the elderly starts to grow.
- Marital status of elderly couples is an added advantage as it could play a vital role in bringing positive vibes in life due to companionship and providing psychological, physical and socio-cultural support.
- One's social status and better social living condition could be improved by educational attainment.

- Child population in India, and elsewhere, are the young dependent group that exerts pressure on the working population to meet their educational, socio-cultural, socio-psychological, and health care and other requirements.
- At times the socio-economic conditions prevailing in a country may not be conducive to allowing more and more new entrants into the workforce. This may result in creating various adverse social consequences (unemployment, underemployment, social tension etc) causing difficulties for the working population.

Glossary

- Ascribe: to assign a status or characteristic to an entity.
- Attribute: a quality or feature regarded to be part of something.
- Enumeration: the act of giving or numbering things; for example, *Census enumeration*.
- Instance: an example or illustration of something.
- Yardstick: a standard or measure used for comparison.

6.7 QUESTIONS

Short Type Questions (Answer within 100-150 words):

1. Write a short note on the age-sex structure of population.
2. What is youth dependency ratio?
3. What is aged dependency ratio?

Essay Type Questions (Answer within 300-400 words):

1. What are the main social characteristics of aged populations?
2. Explain the social consequences of changes in the sizes of child and working populations.

6.8 RECOMMENDED READINGS AND REFERENCES

Anon. (2019) Sex Ratio. Available online at:
www.searo.who.int/entity/health_situation_trends/data/chi/sex-ratio/en/
Accessed 16th January, 2019.

Haq, E. (2007) *Sociology of Population in India*. Macmillan India Ltd., New Delhi.

Premi, M.K. (2003). *Social Demography*. Jawahar Publishers, Delhi.

UNIT 7: POPULATION PYRAMID

UNIT STRUCTURE

7.1 Introduction

7.2 Objectives

7.3 Population Pyramids

7.3.1 The Utility of Population Pyramids

7.3.2 Importance of Population Pyramids

7.3.3 Categories of Population Pyramids

7.4 Population Pyramids of Developed Societies

7.5 Population Pyramids of Developing Societies

7.6 India's Age-sex pyramid

7.7 Types of Population Pyramids

7.8 Summing up

7.9 Questions

7.10 Recommended Readings and References.

7.1 INTRODUCTION

The age and sex structure of a given population reveal several underlying characteristics of a society, community or country. The shape of a pyramid is often indicative of the stage of demographic transition that society or population is experiencing and the fertility and mortality rates prevalent therein. The population of a country or a region undergoes change due to various factors. Thus, it becomes pertinent to combine age and sex structure of population which results in the population pyramid when the population started growing. The age-sex structure of a population revealed by the shape of its pyramidal shape is dependent and indicative of the birth and death rates occurring in that society or territorial/administrative unit. Population pyramids have been regarded as important tools for visualizing age and sex structure. It is indeed an

effective way to display the age and sex distribution of a population in a graphical and diagrammatic manner. Since population does not remain static but varies over time and space, the shift of a population from high fertility to low fertility rate in a demographic transition scenario can be viewed via a population pyramid. The age-sex structure depicted in the form of a pyramid represents the type and size of the population living in a particular country or region. Other than graphical representation of age and sex, a population pyramid can be utilized to depict myriad characteristics of a population like marital status, race, migration, geographical location etc. Thus, in this unit, different dimensions of population pyramids will be dealt at length in order to capture the essence of the age-sex structure of population.

7.2 OBJECTIVES

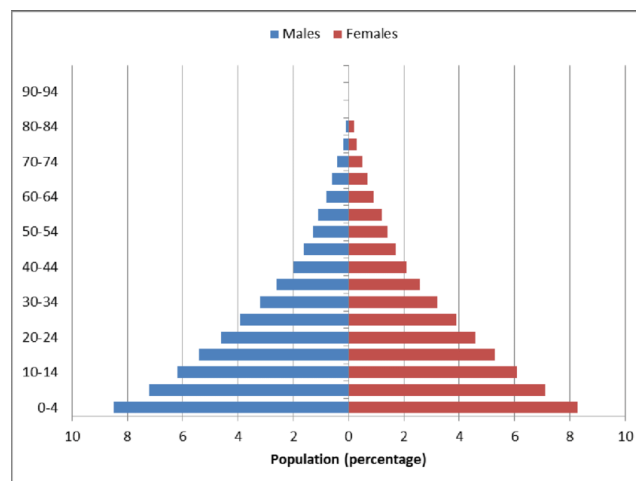
After going through this unit, you will be able to:

- Explain age-sex structure through the lens of population pyramids;
- Analyse the purpose or utility of population pyramids in demography;
- Ascertain the differences among the different types of population pyramids.

7.3 POPULATION PYRAMIDS

The age and sex structure of population are combined in order to acquire a holistic view of the population by means of a population pyramid. The diagrammatic representation in the form of a pyramid indicates a larger proportion at the bottom of the pyramid due to the large size of the population at the lower (younger) ages groups. On the other hand, the top portion of the pyramid gets narrower or tapers towards the apex revealing a smaller proportion of the population at the higher (elder) age-groups.

Figure 1: Population Pyramid



The central vertical line divides the pyramid into two equal halves. The female population is shown on the right side and the male population is depicted on the left side of the pyramid. The horizontal bars on each side (left and right) of the straight line represents the different number of individuals or population size at each age group. The age groups are generally shown at 5-year intervals (example: 0-4 years, 10-14 years) along the vertical axis (or the y-axis) of the graph.

7.3.1 Utility of Population Pyramids

Combining the age and sex structure of the population of an area or region results in a graphical representation. This gives a clear view of the changes that take place within the population structure, when pyramids at two points of time are drawn or shown side by side, for instance, 1981 and 2011. A population pyramid makes it possible to examine the relative differences in the shape and size of age and sex structure, disaggregated at 5-year intervals. By comparing pyramids at two points of time for a country, the changes in the age-sex structure can be determined. The changes in the rates of birth and deaths, as well as the level of life expectancy, could be found out with the help of a population pyramid.

Population pyramids can assist in making assumptions of future population trends on the basis of the age-sex structure of present (and the recent past) population scenario. Different countries can also be compared using population pyramids. A comparison of population pyramids of India and Japan would reveal starkly contrasting scenarios, indicative of varying fertility, mortality and age structures. Naturally, the shape of the pyramids would vary considerably, with India's being more pyramidal in shape (with a typically broad base and a narrow apex) than Japan's (more rounded and far less broad-based with a less sharp apex).

7.3.2 Importance of Population Pyramids


Population pyramids are useful in determining the structure of age and sex and their distribution in a given population. This demographic tool aids in understanding and studying the changing demographic patterns occurring in a country. The dynamics of economic prospects and socio-cultural changes can be indicated by population pyramids. In addition to social and economic aspects, the population pyramid can shed light on the gender ratios which would further help in assessing marital outcomes of a region or country. A population pyramid can also help in knowing the number of people at each age group residing in a particular administrative unit and the extent of growth and development taking place in that area. A population pyramid can be used to determine the number or proportion of the economically dependent population in a particular region or country.

7.3.3 Categories of Population Pyramids

Generally, three broad age and sex categories are considered in constructing population pyramids. The first category is referred to as the young or child population which is also called a progressive population under 15 years of age, the second category consists of a population of 15-59 years (the stationary or working population) and the last category

comprises of the age group or population above 60 years (the aged or regressive population). The pyramidal shape of these categories representing age-sex structure varies across areas, regions or countries due to changes underlying various demographic processes. The variations in socio-economic and cultural factors may also be responsible for causing diverse changes in the demographic processes. The combined effects of socio-demographic factors like gender, employment status, age, marital status etc. tend to impact the three categories of age-sex structure but the age-pyramid remain unchangeable or static. Different shapes of population pyramids represent various societies and their social conditions and are reflective of a society's views towards population and reproduction. Processes like immigration, if occurring in considerable volume, can affect the shape of population pyramids.

CHECK YOUR PROGRESS

	1. What is a population pyramid?
<hr/>	
<hr/>	
2. What is progressive population?	
<hr/>	
<hr/>	

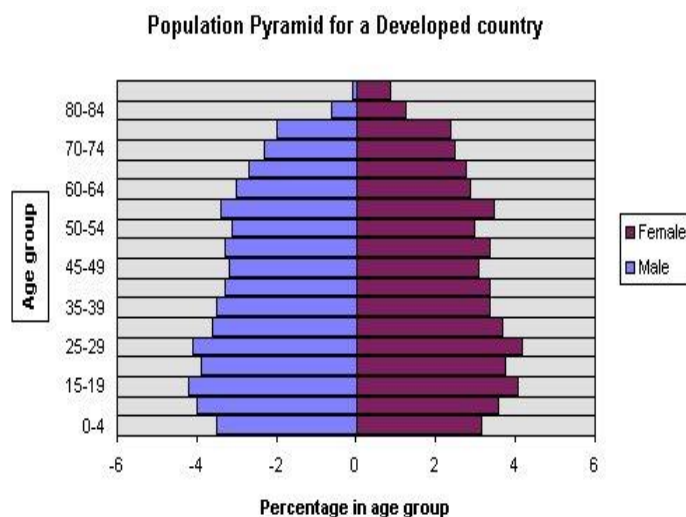
7.4 POPULATION PYRAMIDS OF DEVELOPED SOCIETIES

As have been mentioned by Thompson and Lewis (1976), five types of national population structures are recognized out of which two are

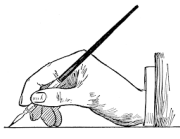
commonly used. One represents the pyramid of developed societies and the other one represents the population pyramid of developing societies.

Firstly, let us consider the population pyramids of developed societies. These pyramids resemble the shape of bee-hives. They have a narrow base and a convex-shaped top. Although age-structures represented in these types of pyramids seem similar across age groups, they generally indicate a minimal number of children at the lower age groups (occupying the lowest part of the pyramid). A relatively higher proportion of the working population is evident in the middle portion of the beehive pyramid and the upper age groups at the top represent the elderly population. Low birth and death rates, lowest dependency loads, a large proportion of older including working population, the longevity of life and highest median age are all represented by population pyramids of developed societies. These characteristics occur due to the prevailing socio-economic conditions in developed societies or countries.

Figure 2: A population pyramid of a developed country



CHECK YOUR PROGRESS



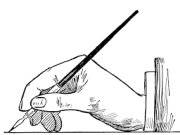
1. How does the population pyramid of a developed country look like?

7.5 POPULATION PYRAMIDS OF DEVELOPING SOCIETIES

Population pyramids of developing societies are quite different from those of the developed societies. Developing societies or countries experience high birth and death rates and these are reflected in their population pyramids. With a broad base, the number of children is considerably heavy at the bottom and with gently sloping sides (as age groups advance). The share of the elderly population, represented at the top portion of the population pyramid, is minimal.

In developing countries or societies, there is the existence of low median age with a high dependency ratio, particularly that of younger dependency ratio. Less developed or developing countries also experience a shorter life expectancy. The features of population pyramids of developing countries (as with those of developed societies or countries) are also formed and governed by social conditions prevailing in these societies.

CHECK YOUR PROGRESS



Fill in the blanks

1. Population pyramid in developing societies are influenced by

Figure 3: A population pyramid of a developing country

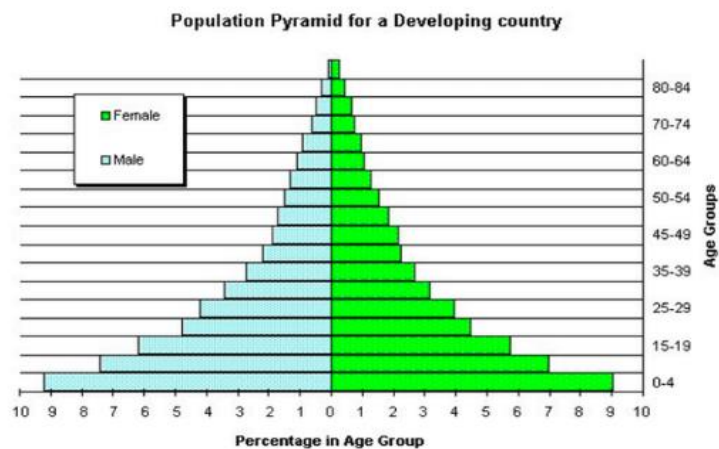
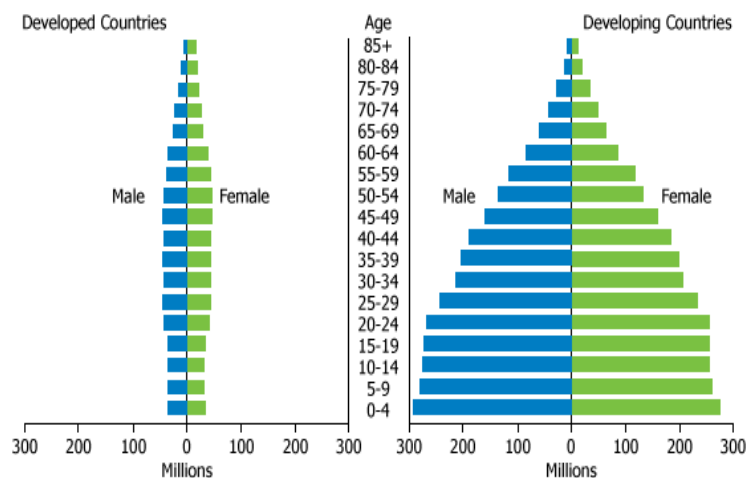


Figure 4: Comparing population pyramids of developed and developing countries



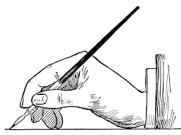
7.6 INDIA'S AGE-SEX PYRAMID

Being a developing country, India's age-sex pyramid has a broad base structure and a tapered apex. It consists of a large share of the population in the young age group i.e. below 15 years. The top segment of the age-

sex pyramid of India is occupied by a narrow part depicting a minimal share of the old population, i.e. 60 years and above.

However, of late it is noticeable that India's population pyramid is changing from its original structure. Due to changes in fertility and mortality rates, the lower broad-based age-structure has been gradually reduced while an increase in the older population has been seen at the top. Thus, there seemed to be a gradual decline in the share of younger population and an increase in the stationary or working population and an increase in the regressive or old age population.

CHECK YOUR PROGRESS

	<p>1. Is India's population pyramid witnessing a change? If yes, how?</p>
<p>-----</p> <p>-----</p> <p>-----</p>	

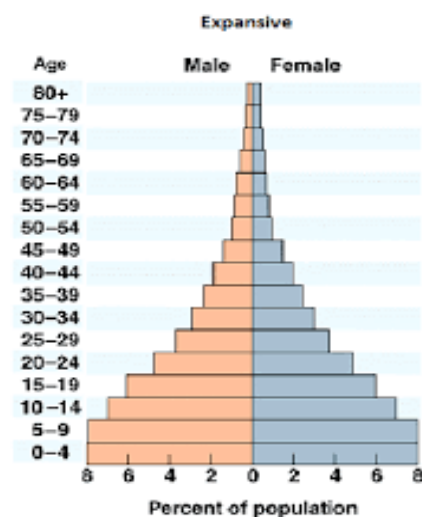
7.7 TYPES OF POPULATION PYRAMIDS

Population pyramids help us understand a variety of patterns and trends in a given population over time. They display age-sex structures of historical and future trends. Although all countries represent their own population pyramids distinctively, depending on the specificities of age, sex, mortality, fertility, migration etc., generally three types of population pyramids are recognized. Since fertility and mortality significantly influence a population pyramid's shape, it is often related to the demographic transition model (DTM) that describes the changes in population occurring at different times. The three recognized models

or types of population pyramids are expansive, stationary and constrictive pyramids.

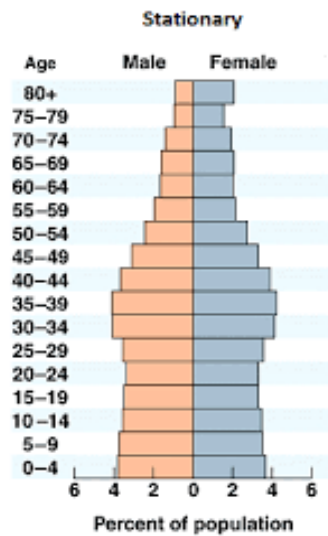
Expansive pyramids are wide at the younger age groups while each higher age group tends to be smaller in size than the age group born prior to it. This type of pyramid indicates countries with high birth rates, high death rates and low life expectancy. Here, the population tends to grow at a fast pace as the birth cohort gets larger than the previous year. Many Third World countries in Asia, Africa and Latin America generally are good examples of expansive population pyramids.

Figure 5: Expansive pyramids



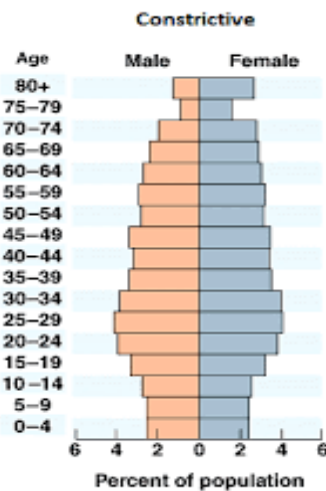
Stationary pyramids display equal numbers of the population across all age-groups. Although a small population is encountered at the older age groups, the percentage of the population seem to remain similar or generally constant over time. This pyramid has an equal number of births and deaths. Countries with stationary population pyramids have low fertility and low mortality rates. European countries, especially Scandinavian countries, possess pyramids of this type.

Figure 6: Stationary pyramids



Constrictive Pyramids have a lower number of younger people or a small proportion of younger age groups in constrictive pyramids. Such pyramids are narrow at the bottom and are usually associated with developed countries where good health care systems exist and proper birth control methods are widely adopted. The population in such pyramids are generally older on an average and low birth and death rates along with higher life expectancy rates are prevalent. The United States is a good example of a constrictive population pyramid.

Figure 7: Constrictive pyramids



7.8 SUMMING UP

- The total population scenario can be determined with the help of age and sex structure.
- The age-sex structure depicted in the form of a pyramid represents the type and size of the population living in a particular country or region.
- People in the younger age groups relatively make a broad base at the bottom of the pyramid while the apex of pyramids comprises of relatively small older age groups of people.
- Population pyramids are useful to arrive at a meaningful comparison between various age groups of a population.
- The lower part of a population pyramid represents the young or child population (or the progressive population) under 15 years of age.
- The middle part of a population pyramid consists of age groups of 15-59 years; it is also known as the stationary or working population.
- The top part of a population pyramid comprises of the age group or population above 60 years which is called the aged population or the regressive population.
- Thompson and Lewis (1976) mention five types of national population structures of which two are commonly used. One represents the pyramid of developed societies and the other represents the population pyramid of developing societies.
- India's population pyramid has a broad base and a progressive bottom, which consists of the maximum population of young age group i.e. below 15 years. The top segment of the age-sex pyramid of India is occupied by a narrow part with the minimum number of older population i.e. 60 years and above.
- The three types of population pyramid are expansive, stationary and constrictive pyramids.

Glossary

- Aid: help or assistance
- Cohort: a group of people having similar characteristics
- Median age: a form of division of the population into two groups where one age group is younger than the other.
- Pertinent: something that is considered as suitable or appropriate
- Pyramid: a structure with a square or triangular base which meets at the apex
- Regressive: the state of returning to a less developed condition or state
- Visualize: to imagine; or to form a mental image or map of someone or something

7.9 QUESTIONS

A. Short type of questions (Answer within 100-150 words):

1. What do you understand by population pyramid?
2. What are the categories of population pyramids?

B. Essay type of questions (Answer within 300-400 words):

1. Comment on the differences between population pyramids of developed countries and developing countries.
2. What does a population pyramid reveal? What is the structure of India's age-sex pyramid?

7.10 RECOMMENDED READINGS AND REFERENCES

Haq, E. (2007). *Sociology of Population in India*. Macmillan India Ltd., New Delhi.

UNIT 8: HUMAN DEVELOPMENT INDEX

UNIT STRUCTURE

- 8.1 Introduction
- 8.2 Objectives
- 8.3 Definition of Human Development Index
 - 8.3.1 Origin of Human Development Index
 - 8.3.2 Need for Human Development
 - 8.3.3 Method for constructing Human Development Index
- 8.4 Gross National Product and Human Development Index
 - 8.4.1 Aspects of Human Development Index
 - 8.4.2 Criticism against Human Development Index
- 8.5 India's Human Development Index
 - 8.5.1 Human Development Approach and 2030 Agenda
 - 8.5.2 Future Possibilities of Human Development Index
- 8.6 Summing Up
- 8.7 Questions
- 8.8 Recommended Readings and References

8.1 INTRODUCTION

Human beings living in society require the basic necessities of life as well as access to good education, health care facilities etc. in order to lead better lives in proper living conditions. The responsibility lies on the specific nation or country to effectively utilize resources to provide adequate facilities for the development of a nation as a whole. In this context, it is useful to consider the concept of Human Development Index (HDI). The life span of human beings, the knowledge system of the population and better living standards are taken into consideration to determine the HDI of a country. Thus, the need for a society to know its

level of advancement and progress depends on the well-being, quality of life, human development and societal growth and not solely on the level of economic development. Therefore, in order to measure the human development of a country, the HDI is helpful to take into account. In this unit, we deal with the concept of HDI as well as focus on how India fares in terms of it.

8.2 OBJECTIVES

After going through this unit, you will be able to:

- Explain the origin of Human Development Index;
- Describe the features associated with it;
- Analyse it in the context of India.

8.3 DEFINITION OF HUMAN DEVELOPMENT INDEX

The Human Development Index or the HDI is a statistical tool or an index that is used to measure a country's overall achievement in its social and economic dimensions. HDI is said to be an indicator to measure the growth and progress of a nation on the basis of longevity or health of the people, knowledge or level of educational attainment of the people and economic success or the standard of living measured by gross domestic product or GDP.

HDI comprising longevity, knowledge and GDP enables us to rank countries as low, medium and high in terms of their human development status.

8.3.1 Origin of Human Development Index

Under the sponsorship of the United Nations Development Program (UNDP), the Human Development Report was prepared in 1989 in order

to measure the socio-economic progress and development of countries. Initially, GDP or Gross Domestic Product per capita was used to determine human development but thereafter, various choices like desire and wish to live, acquire knowledge, improved standards of living, to be free, to live in a community etc. was considered important to assess human development. It was decided to include a group or composite of variables for the measurement rather than use separate variable or choices. A step was taken to measure both social and economic choices. Economic growth seemed to increase resources and options available for social progress while social progress tended to produce a conducive environment for economic growth. The progress of individuals, as well as nations, was to be taken into account on social and economic considerations. This eventually led to the inclusion of real income, life expectancy and educational achievement in the HDI.

Another important decision with regard to the variables of the HDI was to keep it flexible so that refinements could be incorporated on the basis of better data availability and improved research and investigation. The HDI was to serve as a pressure point to encourage policymakers to invest time and resources in producing relevant data. HDI is regarded as one of the best tools to measure a country's growth as it combines all major social and economic indicators. The proposal of using HDI in 1990 is credited to the Pakistani economist Mahbub ul Haq on the basis of developmental concepts presented by Amartya Sen.

8.3.2 Need for Human Development Index

In addition to income as a variable, the Human Development Index also gives information about education, health and longevity variables of a country. It provides us with a different outlook to view, measure and analyse the process of a country's development. As wellbeing is a multidimensional concept, it could not be measured by market

production alone or GDP for that matter. An alternative view of human development is said to be provided by the HDI. The HDI serves as a frame of reference for both social and economic development. To monitor the long term progress in a country's average level of development, the HDI is used on the basis of three dimensions namely a healthy life, access to knowledge and a decent standard of living.

8.3.3 Method for Constructing Human Development Index

While longevity was measured using life expectancy at birth as the single unadjusted component, knowledge was measured by adult literacy and mean (number of) years of schooling. However, a problem arose with the matter of income to be taken as a measure or component in HDI. According to some critics, income was considered as a means and not an end and it was stated that HDI was concerned with ends. However, this misconception was gradually removed as income in HDI was considered as a proxy for goods and services to make the best use of human capabilities and potentialities. The level of income in HDI is regarded as the amount or the portion adequate for maintaining a reasonable standard of living and for the fulfilment of human capacities. This is the cut-off point where income has full value. But after this point, income is said to give diminishing returns which implies that in order to lead a decent life we do not require an infinite amount of income. The component of income is seen as an end which serves the purpose of the people and the HDI method's focus is on the principle of sufficiency rather than satisfaction.

The HDI is constructed in three basic simple steps using the variables of longevity, knowledge and income. The first step consists in defining a country's measure of deprivation with the help of maximum and minimum values which are defined for actual observed values of the three variables in all countries. The countries are placed in the

deprivation value measured in the 0-1 range where 0 is the minimum observed value and 1 is the maximum. The second step involves compiling an average indicator with the help of a simple average of the three indicators of longevity, knowledge and income. The last step is to measure the HDI as one minus the deprivation index. The value of the HDI shows the rank and position of a country in relation to the other countries.

For the first few years, this nature of calculating the HDI created several problems. The minimum value of each of the variables (longevity, knowledge and income) was set at the level of the poorest performing country and the maximum level was placed at the best-performing country. However, the maximum and minimum values kept changing each year which was a result of the performance of the country at the ends of each scale. Even though a country could improve its performance yet its HDI might witness a fall because countries at the top or bottom could do even better.

According to the Human Development Report (HDR) 2010, some changes were made to the dimensions of knowledge and a decent standard of living. Before 2010, the knowledge component or variable was measured taking into account adult literacy rate and combined school enrolment ratios for primary, secondary and tertiary level of education while the decent standard of living component was measured by GDP per capita adjusted for purchasing power parity (PPP US\$) and the component of healthy life had been measured by life expectancy at birth. But in 2010, there were slight modifications to the measurement criteria. The knowledge component got measured with expected years of schooling by schooling age children and the mean years of schooling for adults aged 25 and above. The component of the decent standard of living got changed from GDP per capita (PPP US\$) to GNI (Gross National Per

Income) per capita, adjusted for PPP while the indicator measuring long healthy life remained the same.

CHECK YOUR PROGRESS



1. In which year was the first human development report prepared?

2. Name the variables taken into account for measuring the HDI.

3. What does PPP and GNI stand for?

8.4 GROSS NATIONAL PRODUCT AND HUMAN DEVELOPMENT INDEX

The Gross National Product (GNP) does not get replaced by Human Development Index but the HDI helps in facilitating the understanding of the real position of society in several respects. Apart from the factor of income, the HDI also measures multidimensional aspects like health and education rather than being one dimensional. HDI also shifts the attention of policymakers on the ultimate objectives of development and not just the means. The HDI serves as a more meaningful national average than the GNP because there seem to be much greater extremes in income distribution than there are in the distribution of literacy and life expectancy. Comparing the wider and ever-increasing disparities or differences in income between countries is a difficult task to accomplish

rather than managing the development gaps between nations. In order to present relevant policy inputs and to anticipate or forecast impending trouble, the HDI could be disaggregated by gender, ethnic group or geographical region and in many other ways. HDI has the advantage in that it can be disaggregated in many ways to depict a society diverse developmental attributes.

The GNP reveals a little of the ways in which people live in a society. Even though a high income brings many improvements and betterment for the society and people, yet there are several ways to determine what factors and conditions bring such improvements. GNP is also associated with factors to look for the ways and means of production and consumption of income and the process of distribution of income. The level of income does not occupy a central place but the actual distribution and use of income is an important factor which is often lost sight of. Therefore, HDI is a useful instrument to support and supplement GNP in understanding and analysing society. To see the relation between economic and social progress, the usage and distribution of income is a vital criterion to be considered. If it is found that a country's HDI rank is more favourable than its GNP per capita rank, it should reassure policymakers that their social priorities are progressing in the right direction and that the specific country builds an adequate base of human capital for accelerated growth. They also should be reminded that social progress could be sustained with an adequate economic base, therefore any imbalances in economic growth need to be corrected. But if the HDI rank is seen to be less favourable than the GNP per capita income, this should indicate to policymakers that flaws exist in the process of evenly distributing national income to the people. Thus, it should encourage policymakers to assess whether problems occur in (a) distribution of income (b) the management of development policy and priorities or (c) public policy attention to social services.

8.4.1 Aspects of Human Development Index

As stated earlier HDI can be disaggregated on the basis of various factors like income, gender, geographical location, ethnic group etc. to show a graphic profile of a society and its related dimensions. Many aspects of the human condition are captured and taken into account by HDI. To assess national priorities, a look into HDI rankings can provide insights about countries that combine economic development with social progress. The HDI can reveal future potentialities of a country with regard to economic growth. The differences among various strata of people can be identified by HDI and considerable insights can be revealed on the mutual existence or differences among gender, class, ethnic groups and other attributes. Such analyses would require HDI to be constructed at the sub-national level, at the state or province level.

8.4.2 Criticism against Human Development Index

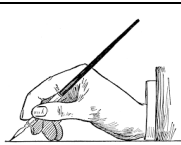
Criticism has also been labelled against HDI from various quarters. To improve the social and economic scenario of any country, opinions of the critics can be taken into consideration in a constructive manner. Some critics stress the need to include more variables other than three accepted variables of longevity, knowledge and income. A proposal was also put forward to produce a series of separate indicators to record various aspects of social progress rather than developing a composite.

8.5 INDIA'S HUMAN DEVELOPMENT INDEX

Developed countries rank higher in the HDI. This is because developed countries are able to spend higher amounts on public expenditure, public health and social security. The UN-report of 1989-99 shows that developed countries spent 5.5 to 8.5 per cent of their GDP on public health and social security. India was ranked 139 in the HDI in 1995. Developing countries like India and others spend a minimum amount on public expenditures on aspects like public health and social security.

According to reports, India spent only 0.7 per cent of the GDP on public health during 1990-95. This is an important reason for the high infant mortality rate in India. Thus, serious concerns are raised on issues like implementation of programmes like human development, particularly of women and children. Based on the data of the Human Development Report in 2015, India ranks 131 out of the 188 countries in HDI. Despite making major progress, India is in the third position among South Asian countries behind Sri Lanka and Maldives.

CHECK YOUR PROGRESS



1. At what rank does India stand in the Human Development Report of 2015?

8.5.1 Human Development Approach and 2030 Agenda

There are three common concerns pertaining to the human development approach and 2030 agenda for sustainable development. Both the approach focuses on strengthening of freedom for every human being. They concentrate on aspects such as eradicating poverty, ending hunger, minimizing inequality, ensuring gender equality and so on. Sustainability is the core principal behind both approaches so that resources and benefits can be used by the present as well as future generations to contribute to all-round progress without adversely affecting the environment.

8.5.2 Future Possibilities of Human Development Index

In spite of criticism of the HDI and calls for its reformation with the inclusion of new variables, yet the measures of human development will depend on the availability of other social indicators and dimensions like political freedom and gender, disaggregated indicators of wealth and other economic well-being. The HDI will continue to analyse a critical theme and provide a broad lens to understand human progress and thus influence thinking related to growth and development. According to the Human Development Index Report of 2016, it is not only pertinent to look at average achievements of a country but it is also necessary to consider the distribution of outcomes and better understand the inequality of opportunity, gender equality, women's empowerment and the overall improvement in the quality of life.

8.6 SUMMING UP

- HDI provides us with a different outlook to view, measure and analyse the process of a country's development.
- The proposal of using the Human Development Index is credited to Mahbub ul Haq on the basis of developmental concepts presented by Amartya Sen.
- The HDI serves as a meaningful national average, rather than the GNP because there seem to be much greater extremes in income distribution than in the distribution of literacy and life expectancy.
- GNP is also associated with factors to look for the means and ways of production and consumption of income and the process of distribution of income.
- HDI can be disaggregated by factors like income, gender, geographical location, ethnic group etc. to show a graphic profile of a society.

- Unlike the situation prevailing in developed countries, developing countries like India spend a minimum amount on public expenditures on aspects like public health and social security.
- HDI continues to analyse a critical theme and provides a useful framework to understand human progress and influence developmental thinking.

Glossary

- Anticipate: to expect any action or thing
- Conducive: something that is convenient
- Disparity: difference
- Eradicate: to remove any matter or aspect
- Forecast: to predict a situation
- Instigate: encouraging oneself or someone to do something
- Modification: the act of making a change or adjustment
- Persuade: to convince or influence
- Proxy: to represent someone or something as a substitute
- Purchasing power parity (PPP): a method to compare income levels of different countries
- Refinement: the process of treating something to remove impurities

8.7 QUESTIONS

A. Answer the following short type questions within 100 to 150 words:

1. How did the Human Development Index originate?
2. Write a note on India's human development index.

B. Answer the following essay type question within 100 to 150 words:

1. Elaborate the methods used for constructing the HDI.
2. How does the Human Development Index differ from the Gross National Product (GNP)?

8.8 RECOMMENDED READINGS AND REFERENCES

Haq, M. (2003). The Birth of the Human Development Index. In Fukuda-Parr, S. and Shiva Kumar, A.K., editors, *Readings in Human Development*, pages 127-137. Oxford University Press, New Delhi.

UNIT 9: POPULATION POLICIES (FERTILITY-RESPONSIVE, MORTALITY-RESPONSIVE, MIGRATION-RESPONSIVE)

UNIT STRUCTURE

9.1 Introduction

9.2 Objectives

9.3 Approaches to Population Policies

9.3.1 Fertility-Responsive Policies

9.3.2 Indirect Measures to Control Fertility Behaviour

9.3.3 Women in the Workforce and in the Family

9.4 Mortality-Responsive Policies

9.4.1 Health for All

9.4.2 Indirect Measures of National Health Policy.

9.5 Migration-Responsive Policies

9.5.1 Migration Policy

9.5.2 Need of Rural Development

9.6 Summing up

9.7 Questions

9.8 Recommended Readings and References

9.1 INTRODUCTION

Changes in population size have been a matter of concern since ancient times. The population has generated considerable debate since the time of Malthus who observed that increases in population were faster than the means of subsistence. The Marxist and sociological views stated that the problem of population lay in the outcome of various socio-economic attributes and thereby Malthusian views were incorrect. Thus, the causes and consequence of population growth have were taken into account and

discussions to curb the constant change in the population of a country or the world at large were discussed and analysed. This led scholars and policymakers to seek solutions to tackle the problem of population growth and allied issues. This unit is directed towards studying the process of formulation of population policy in India taking into account the dimensions of fertility, mortality and migration.

9.2 OBJECTIVES

After going through this unit you will be able to:

- Discuss the population perspective;
- Explain how fertility, mortality and migration influence population policies;
- Analyse the differences between various population policies.

9.3 APPROACHES TO POPULATION POLICIES

The problem of the population seen from a Malthusian viewpoint suggested that man's ability or tendency to multiply was faster than that of food supply or subsistence. This affects the socio-economic condition of people leading to overpopulation. Thus, population policy must aim at solving the problem of overpopulation through direct anti-natalist population policies. With poor socio-economic conditions prevailing, there is a strong tendency of humans to reproduce. Therefore, population policy according should aim to stabilize the population by adopting indirect anti-natalist population-responsive policies. Framing direct anti-natalist population policies are an easier option to adopt than indirect anti-natalist population-responsive policies to tackle the problem of population.

India and other developing countries face the twin problems of overpopulation and socio-economic backwardness. Other problems include growing economic inequalities, misuse of resources, inadequate capital formation and socio-cultural traditionalism. Often developing countries have no option but to adopt population control measures. India was facing the problem of rapid population growth due to a declining mortality rate. This had caused serious concerns since overpopulation could adversely affect social and economic development. Thus, the Indian government felt the need to formulate policies to keep the birth rate in check or within limits. Population policy in India and other developing countries were aimed at reducing fertility rates to optimum and manageable levels through direct measures. Social factors were not taken into account while formulating the policies and were mainly based on Malthusian and neo-Malthusian approaches. These, unfortunately, could not succeed as they failed to address a variety of social problems affecting India. For a population policy to be successful, there is a need to understand the complex relationship between demographic variables and the existing socio-cultural and economic realities faced by a nation and its people.

Population policy requires a holistic approach and should include both developments as well as family planning in order to tackle the problem of overpopulation. These include population-influencing policies (family planning approach) and population-responsive policies (developmental approach). Such policies address the three basic components of population change, namely fertility, mortality and migration.

Population-influencing and population-responsive policies are two different perspectives on the population. While population-influencing policies aim to bring changes in demographic components through direct measures, the latter aims to bring changes in the socio-economic and cultural conditions of living, since these operate as indirect measures of demographic changes. The first policy is based on Malthusian and neo-

Malthusian theory, while the second is based on a Marxist and socialist interpretation of population. The third policy is a combination of the two and aims to simultaneously bring about changes in demographic components as well as socio-cultural and economic conditions.

India adopted the mixed population policy to restrict and limit birth rates through both direct measures like contraception and abortion and also focused on indirect measures such as improving the quality of social life, improved educational facilities, and higher age at marriage, the better status of marriage, effective reproductive and child health services. India's population policy evolved under various Five Year Plans and began focusing on existing demographic components and social conditions. Needless to say, these were not easy to change. Thus, population policy in India sought to be socially-responsive fertility-influencing as well as mortality and migration-responsive due to high infant mortality rates.

Stop and Read

India was one of the first countries to have a population policy that was included in the family planning programmes, starting from the first five-year plan.

9.3.1 Fertility-Responsive Policies

The need to curb population was realized through some direct measures. These measures fall in the category of anti-natalist fertility-influencing policies which were suggested from time to time and pursued or adopted through the Five-Year Plans. The direct measures included targeting eligible couples who are restricted or protected from conception. They were encouraged to use contraceptives, avail free abortion services, given incentives for having two children and given disincentives to have more than two children. Values such as limited reproduction within marriage and methods of moral restraints were also encouraged.

Generally, direct measures are easier to encourage and are also not unduly expensive; though they are short-term and stop-gap population control arrangements. Direct population control measures if successfully implemented, can reduce pressure on resources and speed up socio-economic development. These advancements or development would later improve the living conditions of people by opening up new opportunities for work. These would, in turn, further increase income levels and health status, thereby help increase labour power and improve educational achievements. To meet more important social priorities, the moral pressure of birth and reproduction would automatically get lower in a natural process.

The direct measures aim at influencing fertility behaviour by bringing improvements in the indicators of development. Improvements in the socio-economic, environmental conditions, health and educational status of the people and empowerment of women bring about changes in the fertility behaviour. All these regulate the use of direct measures to control birth. Thus, these improvements and indicators of development are known as ‘measures beyond family planning’. Such social and economic developments have a negative impact on fertility behaviour.

9.3.2 Indirect Measures to Control Fertility Behaviour

The indirect measures of population control are considered less coercive and have long term effects in influencing population growth. However, these measures are difficult to adopt and successfully apply. Education is considered an indirect measure of population since being educated helps to acquire knowledge, develop values and brings the attitude to accept changes, differentiate between priorities and initiate processes of all-round development.

Helping in advancement and growth, education serves as a good indirect contraceptive. Being introduced to knowledge through education, a lot

can be learnt about family planning and its benefits. The first step to lower birth rate rests in educating both men and women. It is important that a whole family gets the required knowledge and education in regard to gender preferences, fertility behaviour and family size. Motivations through educational attainment help to reduce fertility and encourage the small family norm. Education helps women's empowerment and enables them to take part in fertility related decision-making and in the process of stabilizing population growth.

9.3.3 Women in the Workforce and in the Family

The generally accepted norm is that men participate in the productive force or work to earn and women stay behind at homemakers. In a bid to empower women and help them initiate work for their empowerment and development, the Planning Commission focused on the importance of women joining the workforce outside the home. Providing women with the opportunity to work and educate themselves, it was felt, would raise the age of marriage. In turn, this would help to achieve the small family norm and ultimately target population growth. The combined benefits of education, work opportunities and social awareness would help women know about reproductive and child health services and utilize or avail of such services.

To achieve the aim of a stabilized population by 2045, as specified by the National Population Policy, 2000, improvements to health care, reduction in infant mortality rates, social security and nutritional value of women and children have realized to achieve the replacement level of fertility. Likewise, the small family norm has to be accompanied by many provisions such as food security, medical care, maternity care, environment security, etc.

CHECK YOUR PROGRESS



Fill up the gap:

1. India and other developing countries face the twin problems ofand
2. The first step to rests in educating both men and women

9.4 MORTALITY-RESPONSIVE POLICIES

The mortality-responsive policies form an integral part of population policy as do the fertility responsive policies. Mortality is another important demographic factor related to fertility in checking the size of the population.

Mortality-responsive policies are mostly indirect measures of population control. There is a relationship between the mortality rates of infants and children and fertility rates. According to the NPP 2000, a higher rate of fertility is required to offset high infant mortality rates. The process of repeated childbirths is seen by people as insurance against multiple infant and child deaths. In addition, it also multiplies the death rate as the number of births, birth interval and child spacing adversely affect the health status of children. The general reproductive pattern in India is early marriage and thus many children are subsequently born. As stated by the NPP, 2000, around 33 per cent births occur at the interval of fewer than 24 months in India; this worsens the health of the mother as well as the child resulting in high maternal and infant mortality rates.

9.4.1 Health for All

The planning commission constituted a group on Health under National Health Policy to promote good health for all. Some of the objectives framed in 1980 to achieve the target by 2000 were (Premi, 2003):

- To lower crude death rate to nine per thousand persons.
- To lower the infant mortality rate below 60 per thousand live births.
- To bring down the maternal mortality rate to 2 per thousand live births.
- To secure 100 per cent ante-natal care for mothers,
- To raise the standard of immunization and nutritional status of the people, to protect them from communicable diseases and to secure good physical, social and mental health for them.

9.4.2 Indirect Measures of National Health Policy

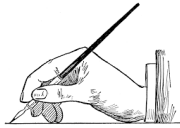
In order to achieve these objectives of 'Health for All', the National Health Policy suggested some indirect measures which are stated below:

- Promotion of Primary Health Centres to deliver primary and basic health care, family welfare, nutritional services and accessibility of health care programmes.
- Provision of effective preventive and curative services.
- Promotion of better resource utilization like water, sanitation and environment.
- Creation of a national health insurance scheme.
- Creation of necessary administrative and financial machinery for the effective operation of the programmes of health to reduce mortality, provide health for all and improve the overall quality of human life.

Though the targets and measures of mortality-responsive national health policy were commendable and would have further helped in utilizing the country's human resource, all the targets could not be fulfilled by the year 2000. There were results of unsatisfactory performances in the health sector. Thus, a multi-sectoral approach was adopted to secure health for all with standard health infrastructure, old age health care, the involvement of NGO's, Panchayats, health services etc. and sub-centres

of health to provide service at primary, secondary and tertiary levels and be accessible to people.

CHECK YOUR PROGRESS



1. Fill up the gap: A was adopted to secure health for all with standard health infrastructure, old age health, etc.

9.5 MIGRATION-RESPONSIVE POLICIES

Migration is another important demographic variable and is linked with fertility and mortality. Both direct and indirect policy measures on migration were adopted in India but it was mostly the indirect measures that were given greater emphasis. When the migration process is faster it speeds up socio-cultural and economic changes, thereby affecting the fertility and mortality behaviour of people. This enables rural to urban migrants to better understand the benefits of small families and to seeking allopathic health facilities to reduce mortality (compared to those which stayed back in rural areas). Migration can realize the human potential in social, economic and intellectual fields thereby creating links with modernity, urbanization and industrialization. Thus, a well-defined migration policy can prove to be positive for a region.

9.5.1 Migration Policy

Migration policy is important to address certain vital aspects like how migration should be planned and regulated, what should be the objectives of migration and the development strategies required to influence the volume and direction of migration. Further several delicate issues need

to be handled: how to distribute migrants spatially in response to the problems of space and density, how to alleviate overcrowding in urban areas, control rural-urban migration and their effects, devise policies of resettlement and rehabilitation, etc.

Direct measures to control migration include administrative and legislative measures, redistribution and resettlement policies, restricting migration, forced out-migration, imposing limits on migration and the size of urban centres, etc. The Malaysian land development policy was an example of a direct measure to divert migration and resettle them in less populated regions (UN report, 1973).

9.5.2 Need of Rural Development

Rural areas and regions need to be developed. Increased or uncontrolled rural-urban migration in search of employment opportunities has led to the rapid expansion of population in urban areas often causing urban sprawl and congestion. Ills such as overcrowding in towns and cities, urban imbalances, environmental problems, the growth of slums, etc. have been a fallout. Thus, a well-defined policy on migration should address these problems created by migration and seek to bring about all-round development, particularly in rural areas.

Programmes and plans of rural development in India would help to gradually minimize urban problems and minimize rural-urban migration. Improving rural infrastructure, conditions of living, poverty, work opportunities in rural and small towns to lessen the flow of rural out-migration are important issues. However, such issues are not easy to achieve. If migration policies can bring about possible solutions, the pace of urban growth could be reduced. Attention can be given in developing the agricultural sector with improved agricultural mechanization and efficient farming technology which can bring agricultural productivity

for rural residents. Such objectives have not, unfortunately, been measurably achieved in India..

9.6 SUMMING UP

- Population policy aims at solving the problem of overpopulation through direct anti-natalist policies and indirect anti-natalist population-responsive policies.
- India adopted a mixed population policy aimed at restricting birth rates through direct (contraception and abortion) and indirect measures (improving the quality of social life, better educational facilities etc).
- The direct measures of fertility responsive policies include targeting eligible couples who are restricted, delayed or protected from conception.
- The indirect measures of population control under fertility responsive policies are considered permanent solutions to stabilize population growth.
- To realize the aim of a stabilized population by 2045, as stated by the National Population Policy (NPP) in 2000, the indirect positive role of health care, reduction in infant mortality rate, social security and nutritional value of women and children have to be improved to achieve the replacement level of fertility.
- Mortality-responsive policies consist mostly of indirect measures to control mortality rates.
- There is the need for a well-defined policy on migration to address aspects like planning and regulating the process of migration and uplifting/developing rural areas to minimize rural-urban migration.

Glossary:

- Aid: help or support
- Contraceptive: a method to prevent pregnancy and plan births
- Curb: to check or restrict something
- Formulate: create or preparing according to a method
- Hamper: slow down or harm something
- Norm: something that is of a particular standard
- Optimum: ideal, best or favourable
- Stabilize: unlikely to change significantly

9.7 QUESTIONS

A. Short type questions (Answer within 100-150 words):

1. What are the indirect measures of National Health Policy?
2. Write a short note on 'Migration Policy'

B. Essay type questions (Answer within 300-400 words):

1. What has been India's approach on population policy?
2. Illustrate the direct and indirect measures to control fertility behaviour.

9.8 RECOMMENDED READINGS AND REFERENCES

Speidel, J.J., Weiss, D.C., Ethelston, S.A., Gilbert, S.M. (2009). Population policies, programmes and environment. *Philosophical Transactions of the Royal Society B Biological Sciences*, 364(1532), 3049–3065. DOI: 10.1098/rstb.2009.0162.

UNIT 10: PROGRAMMES (INITIATIVES AND CRITIQUE)

UNIT STRUCTURE

10.1 Introduction

10.2 Objectives

10.3 Birth of the Family Planning Programme

10.3.1 Family Planning Association of India

10.3.2 Population Planning in India

10.4 Official Population Policies and Programmes

10.4.1 First to Fourth Five Year Plan

10.4.2 Fifth to Eight Five Year Plan

10.4.3 India's Commitment to FP 2020

10.5 International Women's Movement

10.5.1 Current Policies

10.5.2 Critique of the Population Programmes and Policies

10.6 Summing Up

10.7 Questions

10.8 Recommended Readings and References

10.1 INTRODUCTION

Over the past two decades, many changes have taken place within India and in the international arena on population policies and programmes, and population issues have been largely played down nationally and internationally. Since 1994 after the ICPD (International Conference on

Population and Development) the programmes seem to be located under the aura of human rights, women's rights and women's reproductive health and population growth per se received little attention. During the past two and a half decades (1991-2016), India's population increased by about 444 million, from 846 to 1290 million, the highest for any country in the world, including China. Incidentally, China has a larger population than India (over a much larger geographical area) but with a lower growth rate. In this unit, the readers will get to know as to how the population can be a problem for a country like ours and what policies and programmes can be undertaken to handle this issue.

10.2 OBJECTIVES

After going through this unit you will be able to:

- Discuss population and family planning;
- Analyse official population policies;
- Explain the role of women in relation to population planning.

10.3 BIRTH OF THE FAMILY PLANNING PROGRAMME

Rising concern over India's rapid rise in population originated in the third decade of the last century. Until 1920, India's population had been growing very slowly owing to famines, epidemics and (prior to that) invasions and colonization. The limited spread of health infrastructure was also a hindrance. According to census data, the population of India within its present geographical boundaries actually declined between 1911 and 1921, from 252.1 to 251.3 million, because of high mortality inflicted by the worldwide influenza pandemic of 1918-19. Concerns over this rapid rise in population arose amongst intellectuals, social reformers (especially those interested in increasing the status of women) and the government. Thus, the need for promoting modern methods of contraception among married couples, the beginning of a trend of getting

married at a later age and an optimistic note on the spread of the use of contraceptives in the population in Madras Province in the future were perceived by Yeats, the Census Superintendent of Madras Province. But the birth control programme initiated in Bombay and Madras did not spread rapidly because Mahatma Gandhi was strongly opposed to artificial methods of birth control. In spite of the opposition put forward by Mahatma Gandhi to the use of artificial birth control methods, the women's movement in India and various voluntary organizations continued to support the use artificial methods of family planning.

10.3.1 Family Planning Association of India

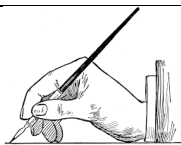
With the demise of Mahatma Gandhi in January 1948, the moralistic opposition to artificial methods of family planning declined. In 1949, the Family Planning Association of India (originally called the Family Planning Committee) was formed. Its members included pioneers like Professor R.D. Karve, Dr A.P. Pillay, Lady Dhanvanthi Rama Rau, Mrs Vembu and Mrs A.B. Wadia, who had been active in family planning programmes before the war had evinced a keen interest during the All India Women's Conference held earlier in 1935. The birth of Family Planning Association of India in Bombay in 1949 ushered in a new phase in India's family planning movement. The International Planned Parenthood Federation, which coordinates voluntary activities in family planning worldwide, also began in Bombay in 1952, with Margaret Sanger and Lady Dhanvanthi Rama Rau as joint presidents. The launch of this international movement in Bombay was a milestone in the history of family planning activities, not only in India but for many other countries, as it gave a new impetus to voluntary planning movements.

10.3.2 Population Planning in India

After independence, India embarked on a process of development to raise living standards and to open new opportunities for a better life for its citizens. The country was committed to some basic goals, namely,

modernization, growth with social justice, self-reliance, and the path chosen to realize these objectives was through democratic planning. The Planning Commission was set up in 1949, and the First Five-Year Plan got underway during 1951-56. Unfortunately, India has not been achieved or realized even the moderate fertility goals formed in any of its five-year plans. The limitations imposed by the political philosophy, within which various social and economic developmental programmes operate, was to be kept in mind when evaluating programmes such as family planning or public health in India and comparing their achievements with other countries. Thus, while Indian Family Planning Programmes had several positive features, it was not without weaknesses as well.

CHECK YOUR PROGRESS



Fill up the gaps:

1. _____ strongly opposed to artificial methods of birth control.
2. In _____, the Family Planning Association of India (originally called the Family Planning Committee) was formed.

10.4 OFFICIAL POPULATION POLICIES AND PROGRAMMES

The government of India appointed the Population Policy Committee in April 1950. The committee was formed under the chairmanship of the minister of planning and, upon the committee's recommendation, a

family planning cell was created in the Office of the Directorate General of Health Services. The First Five-Year Plan document, presented to parliament in December 1952, referred to a programme for “family limitation and population control”. It sought to reduce the birth rate to the extent necessary to stabilize the population at a level consistent with the requirements of the Indian economy. This was the genesis of the first official national family planning programme in the world and a brief review of the population policy component in the first and successive five-year plans follows.

10.4.1 First to Fourth Five Year Plan

The goal of the First Five-Year plan (1951-1956) by Planning Commission, 1951, stated the need of reduction of the birth rate to the extent necessary to stabilize the population at a level consistent with the requirements of the national economy. The programme for family limitation and population control presented a clear picture of the factors contributing to the rapid population increase in India. It also sought to discover suitable techniques of family planning and devise methods by which knowledge of these techniques could be widely disseminated. The family planning programme made notable progress during the Second Five-Year Plan (1956-1961) by continuing the same strategy as in the first plan, namely, the expansion of family planning service facilities through clinics. The distribution of contraceptives was extended through Primary Health Centres (PHCs), hospitals and dispensaries and maternity homes run by state governments. During the Third Five Year Plan (1961-1966) an extensive education approach replaced the clinic-oriented approach adopted under the two earlier plans. This plan aimed at bringing the message and services to people in far-flung corners of the country through a network of rural PHCs, sub-centres, urban hospitals and family welfare training centres. In the Fourth Five Year Plan (1969-1974), family planning was included among programmes given the highest priority. Plans were made to popularize sterilization and achieve the targets. Increased emphasis was put on the camp approach, whereby

sterilizations were carried out in villages, at suitable locations for conducting surgery to meet the time-bound targets mentioned in the plan documents.

10.4.2 Fifth to Eight Five Year Plan

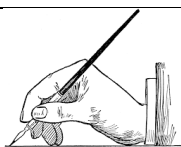
The Fifth Five Year Plan (1974-1979), was implemented in its original form only for four years and underwent drastic modifications because of two changes in the central government during this period. It witnessed a dramatic rise and fall in family planning acceptance. This plan re-fixed the demographic goal of a birth rate of 30 by 1979 and 25 by 1984. Continued high fertility was perceived as the greatest impediment to the country's socio-economic development, and this view was reflected in the coercive sterilization programmes that were implemented during the emergency period 1976-1977. The Sixth Five Year Plan (1980-1985) formulated long term policy goals and programme targets for the family welfare programme. The plan recommended the adoption of a long term demographic goal of reaching the net reproduction rate (NRR) of one by the year 1966 for the country as a whole, and by the year 2001 in all the states. The change in focus from crude birth rate (CBR) to NRR as the demographic goal and from short term to long term targets arose from demographic experiences in India and abroad that low birth rates could not be achieved without substantial reductions in death rates, especially in infant mortality. The Seventh Five Year Plan (1986-1991) endorsed the long term demographic policy of reaching an NRR of one of the year 2000. To achieve the long term demographic goals, launching the special education programmes through the mass media to enlighten people on the benefits of late marriages was proposed. Methods of social enforcement of the minimum age at marriage were also suggested. Incentives for attracting younger couples with fewer than two children to accept spacing methods were also proposed. The Eighth Five Year Plan (1992-1997) was set for a change, to transition from a centrally planned economy to a market-led economy without affecting the socio-economic

fabric of the country. One of the objectives was the containment of population growth through active people's cooperation and an effective scheme of incentives and disincentives.

10.4.3 India's Commitment to FP 2020

Leaders, family planning programmers and administrators from 70 countries met in London in July 2012 under the sponsorship of donor agencies such as Bill and Melinda Gates Foundation and UK Aid and supported by UNFPA and USAID. The objective was to address the immediate but unmet need for contraception to space and limit births in these countries and to prepare a time frame, possibly before 2020 to meet this need. Out of a global need for contraceptive services of 120 million couples, it was estimated that India had an unmet need of 48 million. Estimated data suggests that more than one-third of the global need for contraception lies in India. The Family Planning (FP) 2020 programme suggested that India commit over 2 billion USD to family planning services to 48 million additional women while sustaining the current coverage over 100 million users till 2020. To achieve these goals, it is necessary to strengthen the existing strategies and also nurture innovations in the arena of family planning and related sectors. For example, working to reduce teenage marriages and teenage births, increasing literacy of the girl child, addressing other socio-economic barriers etc. For this India has established a national FP2020 structure with a National Steering Committee and an India FP 2020 Country Coordination Committee.

CHECK YOUR PROGRESS



1. Fill up the gap: The third five year plan was from 1961 to _____.

Stop and Read

The full form of **UNFPA** is the United Nations Population Fund and **USAID** is the United States Agency for International Development

10.5 INTERNATIONAL WOMEN'S MOVEMENT

Early in the 1990s, there was a noticeable development. There were organized intensification and expansion of women's movement within and outside the country, questioning the policies and directions of the government with regard to the role of governments on their reproductive rights and organized national family planning programmes in which women had to shoulder major responsibilities for fertility regulation and demographic transition. Setting up fertility goals and related family planning targets by the governments was considered an infringement on human rights, women's rights and especially on their reproductive rights. All family planning programmes, they argued, had been targeting women through the propagation of female methods of family planning, in the context of a target-oriented and an incentive-based system. The assumption of female sterilizations as the dominant method of family planning in the country, it was argued, was because of the pressure brought on women by the officials in the health department who were keen to fulfil their quotas of family planning. Thus, the family planning programme landed in an undesirable phase where it could neither achieve its demographic targets (low fertility and population stabilization-through birth rate goals converted into family planning targets) nor withdraw from such a programme in the context of a continual rise in the yearly additions to its population.

10.5.1 Current Policies

As of 2016, policies with a bearing on population issues and availability of family planning services include the National Population Policy (NPP) 2000, the National Health Policy (NHP 2002) and the National Rural Health Mission (NRHM 2005).

NPP 2000 and NHP 2002 came up one after the other within a gap of two years. The NPP 2000 laid down 3 objectives- immediate, medium and long term-and 14 quantitative goals, called the national socio-demographic goals to be achieved by 2010. Most of its goals were impossible to achieve. For example, the goal for Infant Mortality Rate(IMR)was to reach 30 by 2010 (NPP 2000 and NHP 2002) and by 2012 (NRHM 2005), but these targets were not realized. Constant shifting the goal posts seemed to be an unending posture in the government programmes. India's new National Health Policy (NHP) of 2017 and is currently in operation. Ambitious infant and maternal mortality and disease elimination targets set by the NHP 2017 has now fixed 2019 or later to achieve these targets.

NRHM launched by the then Prime Minister, Dr Manmohan Singh, has been considered a flagship programmes in the country and it is indeed a departure from the earlier policy and plan documents in two aspects: first, it takes the programmes in a mission mode, and second and more importantly, it is not obsessed by the desired goals of impact, rather it focuses on inputs, strategies and programmes to be undertaken and leaves the ultimate impact as an outcome of what is done. The mission adopted a synergistic approach by relating health to determinants of good health, that is, segments of nutrition, sanitation and hygiene and safe drinking water. It also aimed at mainstreaming Indian systems of medicine to facilitate health care.

10.5.2 Critique of the Population Programmes and Policies

India's family plans and programmes have not always been able to meet its targets. Critics hold that lowering high fertility and slowing population growth would not necessarily produce economic benefits. Concerns about the impact of rapid population growth assumed that growth would hinder economic development in developing countries and threaten food supplies, natural resources and the environment. Another criticism levelled against family planning programmes in the 1960s was that they were centred on the demand for contraception. It was seen that most couples in developing countries were not receptive to voluntary family planning as they preferred large families.

10.6 SUMMING UP

- Until 1920, India's population had been growing very slowly owing to the situations from famines, epidemics and limited spread of health infrastructure.
- The birth of Family Planning Association of India in Bombay in 1949 brought a new age in the family planning movement, not only in India but in many other countries.
- The First Five Year Plan document, presented to parliament in December 1952, referred to a programme for 'family limitation and population control'.
- The Second Five Year Plan focused on the expansion of family planning service facilities through clinics and distribution of contraceptives was extended through Primary Health Centres (PHCs), etc.
- The Seventh Five Year Plan endorsed the long term demographic policy of reaching an NRR of one of the year 2000.
- The Eighth Five Year Plan was set to transition from a centrally planned economy to a market-led economy without adversely affecting the socio-economic fabric of the country.

- India has established a national FP2020 structure with a ‘National Steering Committee’ and an ‘India FP 2020 Country Coordination Committee’.
- The International Women’s Movement argued that family planning programmes have been ultimately targeting women through the propagation of female methods of family planning, in the context of a target-oriented and incentive-based system.

Glossary

- **Aura:** a distinct quality that seems to surround and be generated by person, thing or place.
- **Coercive:** relating to or using force or threats
- **Demise:** a person's death
- **Evaluating:** to form an idea of the amount, number or value
- **Infringement:** the act of breaking the terms of a law
- **Optimistic:** hopeful and positive about future
- **Pioneer:** a person who is among the first to explore or develop something
- **Transition:** the process of changing from one state or condition to another

10.7 QUESTIONS

A. Short type question (Answer within 150-200 words)

1. Briefly explain the advent of the family planning programme in India.
2. List, briefly, the main features of Family Planning (FP) 2020.

B. Essay type question (Answer within 300-400 words)

1. Examine the population control aspects contained in India's five year plans from the First to the Eight Five-Year Plan.
2. Explain about the International Women's Movement in relation to family planning.

10.8 RECOMMENDED READINGS AND REFERENCES

Srinivasan, K (2017). *Population Concerns in India: Shifting Trends, Policies and Programs*. Sage Publishing, India.

MODULE IV: DIMENSIONS OF POPULATION

UNIT 11: SOCIAL DIMENSIONS OF POPULATION EDUCATION

UNIT STRUCTURE

11.1 Introduction

11.2 Objectives

11.3 Meaning of Population Education

11.3.1 Social Dimensions of Population Education

11.3.2 Population Education in India

11.3.3 Population Dynamics

11.4 Population and Quality of Life

11.4.1 Health and Environment

11.4.2 Emergency Preparedness

11.5 Population and Literacy

11.5.1 Mass Media and Population Education

11.5.2 Effects of Unchecked Population Growth

11.6 Summing Up

11.7 Questions

11.8 Recommended Readings and References

11.1 INTRODUCTION

Education plays a significant role in controlling the population of a region. Population education constitutes an important dimension in achieving national demographic goals and in improving the quality of life through a balance between population and the resource base of a region or country. A knowledge of the causes and consequences of uncontrolled population growth can be expected to be received from population education. Population education is a platform to provide

population awareness and helps in developing a rational attitude towards population planning. Population education also aims to gather, distribute and dwell on the study of population information in the context of family, community or nation. Population education can enable people to decode information about issues and concerns that could hamper the population of a region. Educating people on population dynamics and trends can help disseminate information regarding the benefits to be acquired from smaller populations or through smaller families. Cultural variations and changes often determine differences in the concept and scope of population education programmes in different geographical regions. Here, in this unit, the importance of population education in India with reference to the quality of life and literacy will be dealt with in detail.

11.2 OBJECTIVES

After going through this unit you will be able to:

- Explain the meaning of population education;
- Trace the importance of social dimensions of population education;
- Analyse population education with reference to health, environment, literacy and mass media.

11.3 MEANING OF POPULATION EDUCATION

Population education is considered an innovative curriculum of education, thus its proper understanding is important. There are various interpretations to the meaning of population education where some define it in terms of family planning, as part of developmental education, in terms of sex-education and much more. In simple terms, population education can be defined as education on or related to population matters. Both ‘population’ and ‘education’ have to be seen in separately to arrive at an understanding of the term population education. “Population”, for the purpose of education could be defined as the people living in a

specified geographical area, be it a village, a district, a town or the world as a whole. Education, on the other hand, is defined as the process that gives, improves or changes existing knowledge, understanding, information, abilities, skills and many more aspects of the people for their useful performance in life as a member of a family, society or the world.

Population education or population educators are posed with questions and challenges as to what issues and problems are to be addressed as the basis of population education. A look into a few definitions of population education will help in better understanding the concept. According to UNESCO, 1971, population education can be defined as an educational programme which provides for a study of the population situation in the family, community, nation and world, with the purpose of developing in the students rational and responsible attitudes and behaviour towards that situation. Population education has also been defined as an educational process which assists persons to learn the probable causes and consequences of population phenomena for themselves and their communities (including the world) and to define for themselves and their communities the nature of the problems associated with population processes and characteristics and to assess the possible effective means by which society as a whole and the person as an individual can respond to and influence these processes in order to enhance the quality of life now and in the future (Viederman, 1974).

11.3.1 Social Dimensions of Population Education

Population education aims at various dimensions of society in considering the population of a region. As individuals constitute a population, therefore catering to the need and addressing the problem faced by the population of a society is an important exercise. Change of one social variable may occur due to changes in other social variables. Social, political and economic aspects of the environment are important in establishing a link between societal problems and population.

Population size should not be broadly included but more meaningful variables such as density, access to livelihoods and resources, social dimensions of gender, quality of life, literacy, awareness and power structures need to be included. Sustainable development is to be focused upon in order to sustain present and future generations thereby making resources accessible to them. The impact of poverty and pollution on environmental resources is a serious issue as well. As environmental change is affected by population change, a proper mechanism is to be sought to minimize the adverse fallouts from the growing population. Ascertaining the future size and distribution of population and its disaggregation by age, sex, level of education attainment and place of residence constitute an important criterion for studying food security.

11.3.2 Population Education in India

The conception of population changes with time and do the variables associated with its study. The first attempt at defining population education and developing a conceptual framework in India was made in the national seminar on population education held at Bombay in 1969. It was regarded as a motivational force for creating the right attitude to family size and the need for family planning and not as sex education or knowledge of family planning methods (Rao, 1969). The national seminar made a recommendation to define a population in the following way: the objective of population education should be to enable students to understand that family size is controllable, that population limitations can facilitate the development of a higher quality of life. It should also enable students to appreciate the fact that for preserving the health and welfare of the members of a family, ensuring economic stability the Indian family of today should be small with only two or three children.

But later a need was felt to bring changes in the definition to cater to many aspects. The initial step in redefining population education was taken at the UNESCO Regional Seminar held in 1984, in which five

major themes were identified as the core elements of the conceptual framework of population education. These were: family size and family welfare, delayed marriage, responsible parenthood, population change and resource development and population-related beliefs and values. The magnitude of the major causes and consequences of rapid population growth was identified by the National Policy on Education 1986 which specifically focused on the small family norm which needed to be included as the core area in the national system of education. Thus, the new conceptual framework defined population education as an education in the relationships among population, development, resources, environment and quality of life.

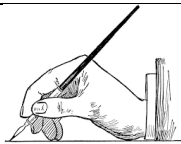
11.3.3 Population Dynamics

India is the populous country in the world after China. At the time of India's independence, India's population was 342 million. Since then, the population of India has increased manifold. Currently, the population of India is estimated to be approximately 1.32 billion people.

The unprecedented increase in the population of India has exerted tremendous pressure on natural resources. The population has been exposed to various health hazards as pollution levels have soared. Cities like New Delhi and Varanasi are among the most polluted globally. Excessive morbidity and mortality have been the result of environmental pollution in urban areas. A growing urban population coupled with industries located in urban centres often led to the degradation of urban environments. Associated ills such as sprawl, congestion and poverty and development of slums have affected several urban centres of India. The balance of demand and supply and distribution of services like energy, housing, transport, communication, education, water supply etc. has often affected urban environments. Poverty alleviation efforts have not always been successful.

Scientific attempts to predict future population scenarios are termed population projections. They are conditioned by making certain assumptions using data related to the past based on current and future growth rates. Constructing accurate population projections is not an easy task. This is because variables like food production, climate variability, socio-cultural setting, political conditions that influence population dynamics are dynamic and not easily predicted. Thus, a projection or future depiction of the population must be looked into with considerable attention and detail.

CHECK YOUR PROGRESS



Fill up the gaps:

1. Attempt at defining population education was made in at Bombay in the year.....
2. The initial step in redefining population education was taken at the held in 1984.

Stop and Read

The first modern global population projection which considered age and sex structure of population was called a cohort-component projection method. It was carried out by Frank Notestein of the Princeton Office of Population Research in 1945.

11.4 POPULATION AND QUALITY OF LIFE

The quality of life of a population is a measurement of a society's development and progress. To achieve a better quality of life, all aspects of the economic, demographic, social situation, food supply and nutrition, health and environment, water supply and sanitation, international partnerships in health etc. are to be given attention to. This will facilitate planning for a better livelihood for the population.

11.4.1 Health and Environment

Environmental degradation due to unplanned urbanization and industrialization is a problem faced by several countries. Emission of pollution from various sources such as vehicular emissions, industrial activities and waste generation has led to respiratory, cardiac and other health problems. Agricultural activities such as the use of pesticides and fertilizers and biomass burning are causing health problems for the people. An unhealthy environment has accrued from the improper disposal of waste on open land and water bodies. The world's oceans are burdened with millions of tons of plastic waste. To minimize the risk of health problems environment pollution should be minimized, although this is an uphill affair and easy or inexpensive solutions do not exist. Issues related to sustainable development including health, adoption of clean technologies by industries, criteria for environment-friendly products have been raised by conservationist and policymakers. Complying with environmental standards and limits can reduce harmful effects on the environment. However, with the lure of profits (huge costs are incurred by industrial units in treating effluents prior to discharge) often means that such rules and regulations are flouted. Often national policies (for example India's use of coal as a fuel instead of costlier cleaner fuels or the use of diesel instead of electric vehicles) also look for low-cost solutions instead of investing in green technologies.

11.4.2 Emergency Preparedness

It is well known that natural calamities suddenly occur. Such events can set back or even completely disrupt the path of development of a community or country. Natural calamities like floods, storm, earthquake, cyclone etc. can have devastating effects on communities. The Kathmandu earthquake or the Latur earthquake caused severe disruption for the communities. Unfortunately, the scale, magnitude and frequency of such disasters has increased manifold in recent years as climate change exacerbates such events and their effects. To combat such events, a proper system of disaster or emergency preparedness needs to be set in place. The Health Sector Emergency Preparedness and Response Program were established in 1980 to cater to the needs of people at times of emergency. The World Health Organization (WHO) also began providing necessary services and aid to the population and communities affected by natural calamities. Disaster planning and preparedness were initiated in India and nowadays disaster contingency plans and structures at district, state and national levels are in place.

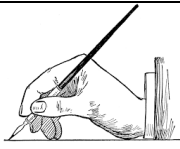
11.5 POPULATION AND LITERACY

Being literate is a vital element that makes population progress towards betterment and enables them to learn and gather knowledge. In earlier times, only a few people were privileged to be able to pursue education. In India, like other developing countries, the availability of educational institutions was rather limited during the 1950s to 1970s. Thereafter slowly improvements crept in and the spatial distribution of schools and colleges became better, initially in urban areas and gradually in rural areas too. In contemporary times, education is being made accessible through direct and indirect modes as new dimensions such as open and distance learning or online learning are increasingly becoming available. A literate population can make a significant contribution to a nation, community or country. Illiteracy can adversely affect the development

of a community. To eliminate illiteracy from India, the National Literacy Mission (NLM) was launched by the Government of India on 5th May 1988 to make people conscious of the need to be educated and literate. It was aimed at educating people within the age group of 15-35 years and to arrive at adult literacy. This specific age group had been targeted because they lie in the productive age segment of a population. The mission was fairly successful in raising India's literacy rate. The campaigns therein helped bring in new learners to the fold of education and literacy. Literacy campaigns were launched in 597 districts across India, of which 174 districts had post-literacy programmes and 328 districts were identified for continuing education programmes.

The literacy mission and its campaign were able to mobilize adult people about the need to make learning an integral part of their lives and impart the same to their children. Increased school enrolment, especially with more girls joining the school and enhancing knowledge and skill was a fallout of these programmes. The need was felt to allow boys and girls to pursue education equally as a means to empower them and thereby generating greater demand for quantity and quality of primary education at the initial level. The adult education programme was successful in facilitating the greater involvement of women thus leading to the path of achieving gender equity and empowerment of women. Illiterate adult women who had earlier been deprived of formal schooling were benefitted by such programmes. The literacy mission helped by providing them with an opportunity to read, write and develop their potential and skills. With adults being educated, the importance of maintaining health, hygiene and proper nutritional status were realized and knowledge of it was disseminated to various communities spread across many parts of India.

CHECK YOUR PROGRESS



1. Fill up the gap:

Being is a vital element that make a population progress towards betterment and enables them to learn and gather knowledge.

11.5.1 Mass Media and Population Education

The role of mass media is aimed at motivating people to understand the benefits of small families. The goals of reducing the size of the population or keeping a balanced population have to start with limiting family size. Mass media can assist people by informing them about population issues, family planning and the proper use of resources. The behaviour of individuals with regard to family and population education can be changed for the better with the powerful tool of mass media. Instruments of mass media like television, radio, films, posters, pictures and other audio-visual devices are and can be used further to reach wide audiences in rural and urban areas. To address the issue of population explosion, there needs to be a proper campaign through mass media and the progress of the campaign is to be evaluated at a grassroots level at regular intervals.

Mass media can serve as an educational technology by disseminating qualitative knowledge and expansion of required education to make people strive towards maintaining the level of population. In order to minimize birth rates and control population size, people need to be aware of family planning techniques and the health issues of a mother and the dangers associated with frequent childbirths. Leave aside the common

man, often, even political leaders, bureaucrats and educationists need to be made aware of population issues.

11.5.2 Effects of Unchecked Population Growth

A country's natural resources and environment can come under immense strain from an unbridled and burgeoning population. Urbanization and industrialization put significant pressures on the natural environment which in turn affects the population. Soil erosion, deforestation, air and water pollution, a declining water table, and environmental degradation are some fallouts of unchecked industrialization and unplanned urban development. In India, the rapid increase of human population combined with poverty has adversely affected natural and local resources on which livelihoods of present and future generations depend. Population, growing affluence levels and rising resource consumption levels tend to accentuate human impacts on the environment. An unchecked population can adversely affect the quality of human life to a point that the strains on an environment stretch beyond sustainable limits.

Thus, the attempt should be made by individuals and government to initiate steps to control the population and prevent future depletion of resources. This can prevent the worsening situation of the country or nation from unemployment, food shortage, illiteracy, poverty and ecological balance. However, such goals are very difficult to achieve. It is easy to state that industries should treat their effluents prior to discharge, however one should not forget that treating discharge is an expensive and costly proposition. Similar is the case of use of diesel in cars, buses and trucks instead of petrol; the former is a cheaper but more environmentally harmful alternative.

11.6 SUMMING UP

- Population education can provide population awareness and aid in developing a rational attitude towards population planning.
- population education can be defined as education on or related to population matters.
- Social, political and economic aspects of the environment are important in establishing a link between societal problems and population.
- After China, India is the most populous country in the world. India's geographical area is far less than that of China.
- The scientific attempt to look into population future scenarios is called population projection and is conditioned by making certain assumptions using data related to the past and present and predicting future population growth rates and sizes.
- The environment has been degraded due to unplanned urbanization and industrialization.
- The World Health Organization (WHO) has been providing the necessary service and aid to populations and countries affected by natural calamities.
- A literate population can make a significant contribution to a country's development while illiteracy can adversely affect such development.
- Education and literacy can assist people in knowing about population issues, family planning and proper use of resources.

Glossary

- | |
|--|
| <ul style="list-style-type: none">• Alleviation: the act of making a problem less severe• Depletion: reducing the quantity of something; generally considered in terms of resources• Dimension: aspect or characteristics of a situation |
|--|

- Disseminate: to spread information or distribute something
- Massive: huge and large
- Mobilize: to prepare or make someone ready for some purpose
- Morbidity: rate or measure of disease in a population
- Proliferation: rapid growth or increase in something
- Recurring: occurring at the regular period of time or repeatedly
- Stench: unpleasant smell or odour

11.7 QUESTIONS

A. Short type question (answer within 150-200 words):

1. Briefly explain the meaning of population education.
2. What was the scenario of population in India during 1950s and thereafter ?

B. Essay type question (answer within 300-400 words):

1. How are health and environment important for a population?
2. How can literacy and mass media contribute to a country's population?

11.8 RECOMMENDED READINGS AND REFERENCES

Pandey, V.C. (2005). *Population Education*. Gyan Publishing House, Delhi.

UNIT 12: POPULATION AS AN ISSUE IN A PLURAL SOCIETY

UNIT STRUCTURE

12.1 Introduction

12.2 Objectives

12.3 Definition of a Plural Society

12.3.1 Characteristics of a Plural Society

12.3.2 Pluralism as a Concept

12.3.3 India as a Plural Society

12.4 Types of Plural Societies

12.4.1 Social Structure and Social Groups

12.4.2 Stratified Plural Societies

12.5 Population in a Plural Society

12.5.1 Migration

12.5.2 Implication of Population Growth

12.6 Summing Up

12.7 Questions

12.8 Recommended Readings and References

12.1 INTRODUCTION

Population refers to the people living in a country or a certain administrative unit. There is a fine line between too less or too many people living in a particular area. However, when the population starts growing in an unchecked manner, problems arise in a society. This happens because a very large population can lead to conflicts over food, water, energy and numerous other resources. The transition of a country from 'developing' to 'developed' requires proper planning and

adequately utilizing natural and human resources in a judicious manner. Such a transition may take several decades to be achieved. India became independent nearly seven decades ago but has not fully transitioned from a developing to a developed country.

In the case of a society with diverse cultural attributes, linguistic groups, religion and ethnic groups etc. making such a transition is altogether more difficult and challenging. Different social groups occupy different geographical regions and have differential access to resources. Further, all the regions of a country are not equally endowed with natural resources that can be tapped for development. For example, hill areas of North East India possess different resources compared to the arid expanses of Rajasthan or the coastal stretches of Kerala. Developing such diverse regions is a huge challenge that a country like India is confronted with. People living in a plural society may live together in cohesion. But when resources get scarce, people belonging to heterogeneous communities ultimately move towards hostility. This situation may give rise to problems. Thus, a study of the meaning of a plural society, its characteristics, the various groups and structure of plural society and the issue of the population within plural societies is of considerable significance.

12.2 OBJECTIVES

After going through this unit, you will be able to

- Explain the meaning of a plural society;
- Analyse the situations of plural societies;
- Discuss population as an integral issue in a pluralistic society.

12.3 DEFINITION OF A PLURAL SOCIETY

A plural society is a society that possesses a number of communities of different culture, language and beliefs. The foundations of the theory of

plural societies were laid by J.S. Furnivall writing primarily about Indonesia and M.G. Smith writing about the British West Indies. The term plural society seems to have been coined by Dr J.S. Furnivall to describe a society comprising two or more elements or social orders which live side by side within the same political unit yet without mingling. The problems in a plural society do not differ in kind but only in degree from problems elsewhere. It is always necessary for a state to maintain a fair degree of agreement on the part of its citizens on vital principles and solutions to problems if the state wishes to remain stable and maintain common interests. According to Furnivall, plural societies were a distinctive type with a characteristic form of political and economic constitution. He states that the social orders across different continents vary over the full range and intensity of ethnic markers like language, cultural symbols, racial characteristics, territory etc. Furnivall also adds that a plural society will have issues to deal with like divergent social demands, distinctive social and economic aspects, pluralistic visions of social life and various struggles to deal with issues concerning the various segments of a population or the society at large. According to M.G. Smith, the peculiarity of a plural society lies not only in its culturally separate sections but also in the nature of the relationships of these sections with one another and with society as a whole.

12.3.1 Characteristics of a Plural Society

As M.G. Smith noted, a plural society is essential for comparative sociology and a comparative study. The characteristics of a modern dynamic plural society are a function of political resources such as money, knowledge, status and access to organizations of strategic locations, particularly in economic educational and cultural affairs; and of bargaining positions, both overt and latent in economic affairs, science, communications, education and elsewhere. As far as India is concerned, India is a classic and very complex plural society and federal polity. India's plural-federal character is apparent in practically every major aspect of its collective life, be it social systems, economic

formations, culture patterns or language-dialect grouping. Likewise, diversities in India exist in terms of religious communities, castes, sub-castes, sects, commonly revered deities, or ethnic identities, regional and sub-regional attachments, or in terms of history.

12.3.2 Pluralism as a Concept

In the words of T.K. Oommen, 'Pluralism' is a much-misunderstood concept and is used at least in two different senses. One set of authors following Furnival (1948) use the term to mean 'coexistence' of two or more segments of the population within a polity who produce and transact goods and services but do not transfer culture or blood (Kuper and Smith, 1971). This form of 'Pluralism' exists in situations in which the collectivities involved are graded into superiors and inferiors. Pluralism here essentially means institutionalized inequality, a feature of hierarchical societies. Another set of authors following Tocqueville (1956) refer to pluralism as a condition which emerges through the division of labour and social differentiation articulated as political interests (Kornhauser, 1960; Shils, 1956).

According to T.K. Oommen, pluralism should be conceptualized as a value-orientation articulated in the dignified coexistence of a variety of groups in a polity. When political and economic interests are articulated in heterogeneous, hierarchical and plural societies there is often an interlinking between race, religion and language on the one hand and material interest on the other.

12.3.3 India as a Plural Society

India is a plural society. This can be attributed to the fact that India is home to many major and minor languages, the existence of the age-old division of society by caste and class, the presence of various religions, ethnicities, racial diversity and the assimilation of different cultures and people. India being a pluralistic society considers diversity as helping

foster its unity and the realization has helped it respect different cultures and customs prevalent across its considerable geographical expanse. Thus, no common notion of life and livelihood is maintained but plural or different aspects of social behaviour, dress, food, religion, culture is taken into account. The grand synthesis of the different cultures, communities and social dimensions has made India uphold unity and diversity. The plural nature of Indian society since long made India stand united as a country with the mixture of people belonging to various castes, religion, language and ethnicity. The historical accounts, socio-cultural facts and cultural heritage of India have contributed to maintaining cohesion among the diverse population groups. While countries like the former USSR or the Soviet Union have not been able to handle diversity, India has been quite successful in recognizing that diversity is the bedrock of Indian unity and that in allowing diverse languages, dialects or religions to flourish and thrive is indeed in India's best interests.

Social and cultural change in India has been shaped by changes in rural society and the urban landscape. India is a land of villages and it has evolved from village life. With an initial focus on agriculture-based activities and with the majority of villages engaged in agriculture, India was regarded as an agrarian country. This brought social bonds among the population in the villages and strengthened the spirit of society. The urban scenario in India evolved out of the changes brought on by modernization in science and technology. Gradually urban centres and towns beyond the four metropolitan cities of Delhi, Bombay (now Mumbai), Calcutta (now Kolkata) and Madras (now Chennai) began to develop in India. Different types of occupations, social organizations and intermingling of cultures, languages, religions and customs define communities living in cities and towns.

Stop and Read

Louis Wirth refers to a city as a relatively large, dense and permanent settlement of socially heterogeneous individuals. In respect of population, changes in population are of fundamental significance to many geographical scenarios and plural societies.

12.4 TYPES OF PLURAL SOCIETIES

A few problems that arise in the discussion of plural societies are from the many varieties of plural situations and the divergent views of researchers. Apart from racially and culturally diverse populations, there are other types of plural situations in which culturally or ethnically separate groups live within a common and accepted system of relationships that do not constitute an effective political entity, i.e. to say, a society.

12.4.1 Social Structure and Social Groups

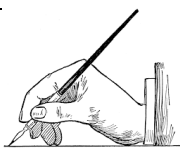
Social structures and social groups are part of a plural society. If the structure of a society is taken to be a systematic arrangement of social positions, statuses and groups, then a theory of a group is a pre-requisite for the structural analysis which is part of the sociologists' procedure in making comparisons between societies. The term 'group' has a wider connotation. Edmund Leach in his work treats an aggregate of people who act jointly in relation to an 'estate' as a group. Groups may move towards a lesser or greater degree of corporations. In certain situations, one of the greatest difficulties of social analysis may be to decide whether a particular aggregate is, in fact, a social group or simply a category of the population. To deal with the concept of social structure, clear meaning of the term social position or status is also needed, because a group is an aggregate not of individuals but of statuses held by human beings in a social structure.

12.4.2 Stratified Plural Societies

Division of societies into broad strata form a hierarchy of prestige, wealth and power and it is a common feature in most societies, except the smallest and technologically simplest. The population of such societies is normally relatively small and the social positions in them may not be sufficiently numerous or diverse to be easily grouped into strata of individuals with an equivalent status that distinguishes them from members of similar aggregate. Most societies are stratified to a greater or lesser degree, but diversification within a society does not necessarily mean that it has a system of stratification, even though some of the divisions are more valuable than others.

Social stratification may be closed or open. The traditional caste system in India comprised of small self-contained systems displaying the summation of roles which were characteristics of small scale industries. The members of the strata or sub-castes were recruited by birth, that is to say, the groups were closed. It can be said that in any stratified society, the members must belong to strata that are groups, the members belonging to groups must be ranked and the groups must be exclusive so that nobody may simultaneously belong to more than one and lastly the members belonging to the groups must be exhaustive in the sense that everybody in the society belongs to one.

CHECK YOUR PROGRESS



1. Fill up the gap: Social stratification may be closed or _____.

12.5 POPULATION IN A PLURAL SOCIETY

India is a geographically large country with various cultures, languages and regions. The characteristics of the population are linked with the social processes of society. Thus, a larger population pose many challenges to a society and its governmental mechanisms. A majority of India's population lives below the poverty line and is deprived of the basic necessities of food, clothing and shelter. Thus, the connection between population size and poverty is a matter of serious concern. Unemployment is a burning problem for a populous country like India. With more individuals in the unemployed category, the population can potentially be afflicted by conflict scenarios and chaos. People may suffer due to an inability to make use of available resources or when they are unable to earn their livelihood.

With expectations of a robust economy and healthy ecology, a smaller population would seem to be a better option in terms of management. However, this expectation of a smaller population has a disadvantage of being less powerful in comparison with countries with large population sizes. India has the advantage of being a plural society, and the proper assimilation of various cultural ideologies and regional aspirations can make India remain a stable, united and dynamic democracy.

12.5.1 Migration

In a plural society, people from various cultures and places live together in harmony. The assimilation of people in a particular location or region occurs when people migrate from one place to another in search of livelihood or due to any problems being faced in the places lived earlier. Migration or the movement of people to live in a different place is regarded as a component of population change. The other components of population change are fertility and mortality. Migration changes the nature of places and societies. The United States of America is a country that has been enriched by several waves of immigrants from several countries of the world, including India. Government, services and

business have to respond to and adapt to population change due to migration in order to meet the needs of the population, represent them politically and in the case of business, ensure profitability. Migration is also important because it can be a significant event and process in individuals lives. To move house, be it to a short or long distance, becomes a matter of social, emotional and financial change as it involves planning and decision-making process.

The direction of migration is linked to the temporality of migration. Migration may be a move from one place to another; a return from that place to the original place (return migration); onward movement to a third place (onward migration); or movement through a series or circuit of places. Migration may be forced or may be due to individual factors and choices. Millions of people have been displaced by natural disasters and conflict. As climate change constraints natural resources, more people are forced to move to urban areas. Political turmoil and conflicts also displace many people from their homes.

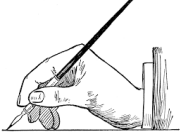
Migration can be interpreted as a reflection of social, economic, political and environmental events and processes at local, national and global scales. It is, therefore, a valuable window through which to understand social change. Social reactions will arise when migration take place because resources need to be shared among people living originally in a place and those who come to live due to migration. At most times the addition of people in a particular place invites social tension and unrest due to lack of resources and which need to be shared among the population.

As has been observed: “demographic changes have accelerated substantially since the Second World War. Fertility rates have both increased and declined, and at paces previously unseen. Mortality rates in many parts of the world also have declined rapidly by all historical standards,

especially in low-income countries that have successfully adopted public health and sanitation techniques developed much earlier in Europe. Moreover, over the same period international migration has become larger and more volatile” (Teitelbaum, 2015).

Immigrants to a large country like Australia may facilitate resource exploitation. However, migration would not necessarily have the same positive effect on a country like India, which already has a high density of population and large population size that strains its natural resources.

CHECK YOUR PROGRESS

	1. Fill up the gap: Political turmoil and _____ also displace many people from their homes.
--	---

12.5.2 Implications of Population Growth

A plural society with multicultural landscapes of language, race, caste, religion, ethnicity and many social markers of economy, politics and education may face the problem of population growth. This may be attributed to the fact a growing population may not be given equal chances to grow and develop themselves fully with the resources that are available. The economic performance of a country may be jeopardized or benefitted depending on the population. Population growth, beyond an optimal limit, may put stress on the supporting capacity of the earth and thereby hamper a society's economic development. Many demographers like Concepcion, Francis Madigan etc. have called global attention to issues of the population which can negate growth and bring problems, particularly in a plural society. Concepcion (1966) stated that with a

rapidly growing population, a considerable portion of funds available for investment must be absorbed in infrastructure and the expansion of capital resources required in maintaining the present productivity per worker. Francis Madigan stressed that a growing population results in a growing number of dependents who must be supported by the working population, mounting difficulties of educating the increasing number of youth and of preventing dietary insufficiencies, increasing unemployment and underemployment.

Yet in spite of the difficulties and problems posed by a large population or rapid growth of population, big population size can also aid in bringing significant development to a plural society. The patterns of interaction can be enhanced among the population in a plural society. Roles or norms can be modified and altered for the betterment of the people. Division of roles among the population can effectively contribute to the production of goods, the consumers and cultural exchange among them. To support social and technological situations and conditions, it can be assumed that the more the people, the more the contributions for a country's welfare. Positivity and harmony among the people in a plural society would be a desirable goal to aspire for, however, the fact remains that unbridled population growth, amidst unequal distribution of resources and among regions within countries can be problematic. Further, the issue of climate change which can impede economic development is a reality that societies and countries today face.

12.6 SUMMING UP

- A plural society is a society which has the integration and existence of a number of communities of different culture, language and beliefs.
- Tocqueville (1956) refers to pluralism as a condition which emerges through the division of labour and social differentiation articulated as political interests.

- The grand synthesis of the different cultures, people of various communities and social dimensions have made India uphold unity in diversity.
- India has the advantage of being a plural society, wherein the assimilation of various cultural ideologies and regional aspirations has India remain unified as a stable democracy in spite of its rich and varied diversities.
- Most societies are stratified to a greater or lesser degree, but diversification within a society does not necessarily mean that it has a system of stratification, even though some of the divisions are more valued than others.
- Concepcion (1966) says that with a rapidly growing population, a considerable portion of funds available for investment must be absorbed in infrastructure and the expansion of capital resources required in maintaining the present productivity per worker.

Glossary

- Divergent: different
- Heterogeneous: different in character or content; as opposed to homogeneousness (or uniformness)
- Hamper: affect adversely; act as an obstacle to a certain course of action
- Jeopardize: put someone or something in risk
- Latent: state of inactivity or a hidden state
- Mingling: mixing together
- Overt: something that is noticeable; not hidden or covert

12.7 QUESTIONS

A. Short type question (Answer within 150-200 words):

1. Briefly explain the meaning of a plural society.

2. Briefly explain what you understand by stratified plural societies.

B. Essay type question (Answer within 300-400 words):

1. Explain India as a plural society.
2. Explain the issue of migration and population.

12.8 RECOMMENDED READINGS AND REFERENCES

Morris, H. (1967). Some Aspects of the Concept Plural Society. *Man*, 2 (2): 169-184. doi:10.2307/2799485

Teitelbaum, M.S. (2015) Political demography: Powerful trends under-attended by demographic science, *Population Studies*, 69:sup1, S87-S95, DOI:10.1080/00324728.2014.977638

UNIT 13: POPULATION AND HEALTH

UNIT STRUCTURE

13.1 Introduction

13.2 Objectives

13.3 Health of Population in Society

13.3.1 Population Health

13.3.2 National Priorities and Goals of Health

13.3.3 Importance of Population Health

13.4 Health Status Issues

13.4.1 Health Notions in Plural Systems

13.4.2 Preventive Strategies of Population Health

13.5 Inequity in Healthcare Access

13.5.1 Predictions of Health in Future

13.5.2 India's Health System of 2022

13.6 Summing Up

13.7 Questions

13.8 Recommended Readings and Reference

13.1 INTRODUCTION

The health and well-being of people are important as it impacts upon the productive potential of a population. The focus of population health is on connecting traditional health care settings and the overall health continuum with advanced information about a person's lifestyle. It is important that individuals should be empowered to make better decisions and form habits that can help to advance their health and quality of life.

The need arises to turn our attention to environmental, economic, geographic and social factors which can impact the health of individuals. The health of population counts in the contribution of effective activities in a workforce. Therefore, through this unit learners will get an opportunity to familiarize themselves with the notion of health in a country or that of a population and the various aspects associated with the health scenario.

13.2 OBJECTIVES

After going through this unit you will be able to:

- Explain the meaning of population health;
- Discuss the need for a healthy population;
- Analyse the underlying dimensions associated with population and health.

13.3 HEALTH OF POPULATION IN SOCIETY

India's population has grown rapidly and this has put a substantial burden on resources. A culture of health and wellness needs to be adopted by the public for them to derive the benefits that accrue from being healthy and productive. With disabilities, a person or a population cannot realize their full potentials. To arrive at a better quality of life and reduce morbidity, everyone in society is required to develop an attitude towards reducing disease and improving health and its various parameters.

13.3.1 Population Health

Population health as a concept has emerged in recent times. It includes a wide range of public health attributes and deals with the issues of health that affect society and how society responds to health issues. Population health provides a wide range of factors that can affect the health of individuals as well as providing a range of measures that need to be adopted to deal effectively with health issues that confront society.

Population health also provides strategies for considering the broad range of political interventions to address the issue. By intervention, we mean the full range of strategies designed to protect the health and prevent disease, disability and death. Interventions include preventive efforts, such as nutrition and vaccinations; curative efforts, such as antibiotics and cancer surgery; efforts to prevent complication and restore function—from chemotherapy to physical therapy. Thus, population health is about healthy people and a healthy population. The concept of population health can be seen as a comprehensive manner set against the background of modern (and technologically advanced) public health. It utilizes an evidence-based approach to make an assessment of determinants of health and disease and makes use of options for intervening to preserve and improve the health of a population. Population health refers broadly to the distribution of health outcomes within a population, the health determinants that influence the distribution, and the policies and interventions that affect these determinants. Accordingly, population health is holistic in that it seeks to reveal patterns and connections within and among multiple systems and to develop approaches that respond to the needs of a population.

13.3.2 National Priorities and Goals of Health

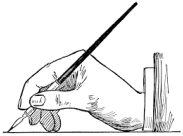
Many noticeable efforts are being taken to improve health facilities for a population but only a few have succeeded in achieving the goals and objectives. In this regard, the National Priorities Partnership (NPP) has been unique. The NPP is a partnership of 52 major national organizations with a shared vision to achieve better health and a safe, equitable and value-driven healthcare system. Recognizing that ways must be fundamentally changed to deliver care to improve access to safe, effective and affordable health care, the NPP was envisioned to achieve a transformational change. The priorities were set with four key challenges in mind which were to eliminate harm, eradicate differences, reducing disease burden and remove waste. To address these challenges,

six national priorities were established in September 2011. They were as follows:

- To work with communities to help promote wide use of best practices to enable healthy living and well-being.
- To promote the most effective prevention, treatment and intervention practices for the leading causes of mortality.
- To help ensure person and family-centred care.
- To make the system of care safer.
- To help promote effective communication and care coordination.
- To make provisions for quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models.

Thus, in order to achieve this national priority, it requires that health and wellness be improved and fostered at the community level through a partnership between public health agencies, health care purchasers and health care systems. Thereby the goal is to promote preventive services, healthy lifestyle behaviours and measurement based on a national index to assess health status.

CHECK YOUR PROGRESS

	1. Fill up the gap: The full form of NPP is _____.
---	--

1.3.3 Importance of Population Health

A healthy and robust health system of individuals and society is central to human satisfaction and happiness. Better health makes an important contribution to economic progress as it is believed and can be seen that a healthy population lives longer and is more productive and efficient as

well. Many factors influence health status and a country's ability to provide quality health services for its people. Government ministries or departments of public health are important actors but so are other non-governmental organizations, donor organizations, the private sector, civil society groups and communities themselves. For example investments in roads can improve access to health services; inflation targets can constrain health spending, and civil service reform can create opportunities-or limits-to hiring more health workers.

In this context, a mention of the World Health Organization (WHO) where its work on 'Health and development' tries to make sense of these complex links, is relevant. The WHO is concerned with the impact of better health on development and poverty policies on the achievement of health goals. In particular, it aims to build support across government for higher levels of investment in health and to ensure that health is prioritized within the overall economic and development plans. Thus, 'health and development' work supports health policies that respond to the needs of the poorest groups. WHO also works with donors to ensure that aid for health is adequate, effective and targeted at priority health problems.

Stop and Read

In India, the Pradhan Mantri Jan Arogya Yojana provides cashless health insurance cover up to Rs. 5 lakhs per family, per year, covering 500 million poor citizens.

13.4 HEALTH STATUS ISSUES

Health status in India is different in rural and urban areas. Also, there exist wide differences between states in terms of health outcomes, status and infrastructure. The rural-urban differentials are substantial and it

ranges from childhood and the gap increases up to 5 years. The health status of children and women are different in rural areas as the lack of literacy and knowledge keep them unaware of the potential risks of health hazards. The scenario in urban areas is relatively better as individuals have better knowledge of health issues, problems and the need to maintain a quality environment for health benefits. Even though there has been an overall achievement in health status and condition of people yet there is a mixed record of social development which has failed to involve people in imaginative ways. There remains a considerable variation in the health status in terms of social class, gender, region or state. Various social classes in many states have to suffer due to lack of access or denial of health facilities and this leads to social exclusion from health benefits to society. While urban areas have better health outcomes due to the availability of advanced and modern medical facilities, the same is not true in villages and rural areas.

Both India and China are populous countries. Yet China has made remarkable achievements in the health sector and it has succeeded in fighting disease and improving the health of people, especially the younger population. India, on the other hand, has achieved mixed results in terms of providing access to proper health facilities to its people.

13.4.1 Health Notion in Plural Systems

The perceptions and notions of the health of the population play an important role in maintaining a sound health system as well as in arriving at health outcomes. At times, the culture of a society determines the idea of health development. There are instances when traditional medicines and medication are considered more effective than the modern ways and practices of treating health problems. People may themselves develop choices to choose between traditional medicines or technically developed sound health care systems. In order to maintain a healthy lifestyle in today's world and provide a population with effective healthcare resources, there are now attempts to rework traditional

processes of medication into new interventions within the health care system.

According to different social circumstances, people may opt to choose traditional medical care like Ayurveda and Siddha medicine. There is a need to provide a majority of the population with a proper health care system. The best possible medical service is expected by people to help them sustain their lives and make attempts to live disease-free lives or at least be minimally affected by health hazards.

Stop and Read

In India, the National Rural Health Mission was introduced in 2005 while National Urban Health Mission was introduced in 2014.

13.4.2 Preventive Strategies of Population Health

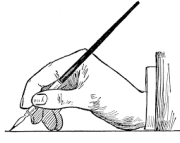
There is no official list or agreed upon causes as regards the determinants of disease. However, the general consensus is that the factors that decrease the chances of developing conditions that threaten the quantity or quality of life is of significance. These comprise of **behaviour, infections, genetics, geography, environment, medical care and socio-economic or cultural** factors. A brief description of these factors will help us understand the determinants better.

Behaviour implies actions that increase exposure to the factors that produce disease or protect individuals from disease. Actions for example cigarette smoking, diet, exercise etc. are examples of ways that behaviour helps to determine the development (or absence) of disease. **Infections** are often the direct causes of disease. It has been recognized that early or long-standing exposure to infection may contribute to the development of a disease or even protection against disease. The revolution in **genetics**

has brought our attention to roles that genetic factors play in the development and outcome of the disease. **Geographic** location influences the frequency and even the presence of disease. Infectious diseases like malaria are predominant and occur only in certain defined geographical area or regions. **Environmental** factors determine disease in a number of ways. The unaltered or natural physical world around us may produce disability and death from sudden natural disasters like earthquakes, floods, or iodine deficiency due to low iodine content in the food-producing soil. Access to and the quality of **medical care** is another determinant of disease. When a high percentage of individuals are protected by vaccination, the non-vaccinated individuals in the population need to be protected as well. **Socio-economic or cultural** factors include education, income and occupational status in the United States. Cultural and religious factors are increasingly being recognized as determinants of disease because beliefs sometimes influence decisions about disease occurrence and seeking protection.

In order to help and prevent population from recurring diseases and to determine the probable causes of disease, a wide range of strategies have been used to address health issues. For a better understanding, strategies are divided into three general categories, namely, **health care, traditional public health and social interventions**. Health care consists of systems for delivering one-on-one individual health services including those aimed at prevention, cure, palliative care and rehabilitation. Traditional public health sector consists of group and community based interventions directed at health promotion and disease prevention. Social interventions include measures that help build a conducive environment, increase education, improve nutritional status and address socio-economic disparities.

CHECK YOUR PROGRESS



1. Fill up the gap: For a better understanding, strategies can be divided into three general categories namely, health care, traditional public health and _____.

13.5 INEQUITY IN HEALTHCARE ACCESS

India's inequity or injustice in healthcare access is a known fact. The differences in health outcomes across states are strong indicators of this disparity. While some health indicators in states such as Kerala and Tamil Nadu are at par with those of developed economies, those in states such as Uttar Pradesh remain significantly below world averages. What is perhaps less understood is the magnitude of this inequality, its manifestation across the rural-urban divide and income segments, and its alarming upward trajectory.

The inequity of health care access can be seen in different degrees in a variety of clusters of population namely the urban poor, urban middle class, urban rich, rural poor, rural middle class and rural rich. All the clusters have a different degree of participation in access to healthcare, disease prevention and incidence and health care choices such as the site of treatment.

In matters of disease, it is to be noted that non-communicable diseases are often considered problems of the urban rich. It needs to be noted that rural India accounts for nearly half of the prevalence of heart disease and diabetes and nearly 70 per cent of cancer cases. As a result, rural India suffers from a dual burden of disease.

Stop and Read

In India, the National Health Policy was introduced in 2017 and the Ayushman Bharat National Health Protection Mission in 2018.

13.5.1 Prediction of Health in Future

Generally speaking, it is difficult to predict the future health scenario of India or that of the world as a whole. However, projections regarding health care in India must rest on the overall changes in its political economy and progress must be made in lessening poverty and in reducing inequalities. Thus, aspects like health care to the poor, health inequalities affecting access and quality, in the generation of employment /income and also efforts to facilitate capacity to pay and accept individual responsibility for one's health are to be taken into consideration.

To ensure better health care facilities in the country, steps taken will also depend on the success in reducing mortality and disease load, efficient and fair delivery and financing systems in private and public sectors, and attention to given to vulnerable sections. Vital issues like adoption or acceptance of family planning practices among illiterate sections of the population, provision of nutritional services, encouraging women's empowerment need to be tackled. These attempts and steps will assist in providing the population with health benefits and enhanced quality of lives.

13.5.2 India's Health System of 2022

In order to uplift the health system of India, a vision has been laid out by the Planning Commission's draft Twelfth Five Year Plan to "establish a system of universal health coverage where each individual would have assured access to a defined essential range of medicines and treatment at an affordable price, which should be entirely free for a large percentage

of population”. Thus, India will need to make progress materially towards its goal of universal healthcare access. Substantial progress will need to be made in enhancing financial coverage, filling up resource gaps and focusing on the patient’s interest.

The vision of 2022 health system in India consists of some of goals which seem aspirational, yet they can be attained. It seeks to improve the financial access which would be achieved primarily through extensive insurance cover. Healthcare resource gaps to be filled would demand a large scale of infrastructure and healthcare facilities. Ayush and medical practitioners will need to be incorporated into mainstream healthcare at a national level, thereby also bridging the urban-rural inequity in healthcare resourcing.

13.6 SUMMING UP

- A culture of health and wellness needs to be adopted by the public for the benefit of the health and wellbeing of a population.
- The concept of population health can be seen as a comprehensive way of thinking about the modern scope of public health.
- The National Priorities Partnership (NPP) is a partnership of 52 major national organizations with a shared vision to achieve better health and a safe, equitable and value-driven healthcare system.
- Better health makes an important contribution to economic progress as it is seen that a healthy population lives a longer and more productive life.
- The World Health Organization (WHO) is concerned with the impact of improved health on development and poverty reduction policies on the achievement of health goals.
- Various social classes in many states of India have to suffer due to lack of access or denial of health facilities and this leads to social exclusion from health benefits.

- The factors which act as determinants at times increase or decrease the chances of developing conditions that threaten the quantity or quality of life. These factors are behaviour, infections, genetics, geography, environment, medical care and socio-economic and cultural determinants.
- The vision of 2022 health system in India consists of some of the goals which seem to be aspirational, yet they can be attained. It seeks to improve the financial access which would be achieved primarily through extensive insurance cover.

Glossary

- Foster: to encourage the development of something or someone.
- Intervention: a process of preventing or changing the course of events.
- Perception: the way in which something is understood.
- Trajectory: a path or direction that is followed.
- Vulnerable : unsafe or unprotected.

13.7 QUESTIONS

C. Short type question (Answer within 150-200 words):

3. Briefly explain the meaning of population health.
4. Explain the importance of population health.

D. Essay type question (Answer within 300-400 words):

3. What preventive strategies can be taken to improve population health?
4. Explain the issue of inequity in healthcare access and also comment on India's health system of 2022.

13.8 RECOMMENDED READINGS AND REFERENCES

Nash, D.B., Fabius, R. J., Clarke, J. L., & Skoufalos, A. (2016).
Population Health. Jones & Barlett Learning, LLC

Internet sources: Population Reference Bureau (<https://www.prb.org/>)

UNIT 14: POPULATION AND DEVELOPING COUNTRIES

UNIT STRUCTURE

- 14.1 Introduction
- 14.2 Objectives
- 14.3 Population in Developing Countries
 - 14.3.1 Population Growth and Food Supply
 - 14.3.2 Population Growth and Housing
 - 14.3.3 Population Growth and Human Rights
- 14.4 Poverty and Economy in Developing Countries
 - 14.4.1 Population Growth and Poverty
 - 14.4.2 Population and Economy
- 14.5 Effects of Economic Development
 - 14.5.1 Economic and Social Development and Mortality
 - 14.5.2 Effects of Economic Development on Population Growth
- 14.6 Summing Up
- 14.7 Questions
- 14.8 Recommended Readings and References

14.1 INTRODUCTION

A growing population or a faster rate of population growth has become a source of major concern for developing countries. This is mainly due to the increasing burden of population on the environment and paucity of resource use and utilization. Thus, population growth can have a detrimental impact on the environment, housing, poverty, family planning, human rights, employment etc. A population consisting of people living on the edge of income and resources lie in the shadow of poverty is neither desirable nor advisable. However, this is the reality

faced by millions of people in poor countries. Hunger, malnutrition and starvation in the countries of sub-Saharan Africa are a blot on humanity. Reduced quality of housing and food supply adversely affects the population when it is unable to meet the desired needs of the population. Thus, helping and providing a population with adequate resources will augment the productivity of a country and stimulate growth and prosperity. At the same time, this is necessary for greater inclusiveness and in reaping the benefits of a technologically advanced world. In this unit, the learners will grasp the importance of population growth in developing countries and its effects on housing, food supply etc. Also, learners will be in a position to gauge the linkages and effects between population growth and economic development.

14.2 OBJECTIVES

After going through this unit you will be able to:

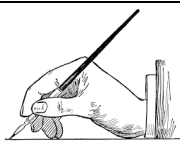
- Analyse the status of population in developing countries;
- Assess the links between population and poverty;
- Discuss the impact of population growth on an economy.

14.3 POPULATION IN DEVELOPING COUNTRIES

According to the United Nations, developing countries are nations that have low living standards, an underdeveloped industrial base and low human development index (HDI). A developing country is also called an emerging or transitional economy. A high or low population can both have significant effects on developing countries. A rapidly growing population is generally thought to be a greater risk for a country, whereas a slowing population growth can stimulate greater productivity and savings. Slowing population growth through lower fertility produces a demographic dividend whereby the proportion of persons in the working age increases vis-a-vis those of children and

the elderly. When supported by economic policies that increase employment and strong public investment in education and health, the demographic dividend can itself contribute to development. It is believed that growth in human numbers has been a principal cause of rising demand for food, water and other life-sustaining resources in the past and will continue to be so in the foreseeable future. The United Nations projects that the populations in developing countries will reach 6.5 billion by 2020 and 8.2 billion by 2050. Although the global population (primarily through developing country increments) continues to expand rapidly, the rate of growth is declining modestly. It is significant to note that population growth can have important effects on food supply, housing and human rights.

CHECK YOUR PROGRESS



1. Fill up the gap: The United Nations projects that the developing country population will reach 6.5 billion by _____ and 8.2 billion by _____.

14.3.1 Population and Food Supply

The trend in recent increases in the production of major food grains could easily suggest that there is little concern about the capacity of the world's farmers to meet the future demands of food. Vernon Ruttan concludes that in the absence of increases in the quality and quantity of land and renewed investments in agricultural research and technology, sustainable growth in agricultural production will be insufficient to meet the increasing demand for food. The increased demand is generated by rapid population growth and rising income levels and meeting such demands will be difficult and costly. It will require advances in productivity that

are increasingly difficult to achieve because they require large increases in physical and institutional infrastructure (land and water development, rural transport and communication facilities), improvements in the health and education of rural people, and a substantial expansion of agricultural research and technology. As Ruttan noted, the more rapid the rate of population growth, the more difficult the task of feeding the world's population.

Ruttan specifies three main sets of constraints that must be overcome to achieve sustainable growth in agricultural production. These are scientific and technical constraints, resource and environmental constraints and health constraints. If these constraints are not overcome or if the rate of growth of the world's population does not stabilize, malnourishment will likely exceed current levels. In the words of Ruttan, slow growth of population and rapid growth of income and employment in the non-agricultural sector would provide the most favourable environment to feed the world population.

14.3.2 Population Growth and Housing

Population growth also affects the housing sector. According to Andrew Mason, rapid population growth increases the demand for residential land, housing and infrastructure. Increased demand leads to higher prices, shortages and reduced quality of housing, all of which deeply affect population welfare. Rapid population growth and increased population density have substantial inflationary effects on land prices, which may, in turn adversely affect housing investments. Impediments to borrowing limit the size and availability of loans for individuals to purchase land and houses. Thus, individuals may settle for reduced quality or value in their housing units to offset increased land costs. Other possible outcomes include the construction of multi-family housing units, crowding or homelessness. Mason talks about the link between

population growth and urban environmental problems. Rapid population growth is one contributing factor while the other factor includes poor urban policy and also at times, corruption. It is also noticeable that urban problems arise as an investment in infrastructure lags behind the growth in demand for urban services.

Stop and Read

Evidence from Asia suggests that rapid population growth is associated with crowding of housing area and worsening of housing conditions.

14.3.3 Population and Human Rights

Human rights are inextricably linked with the population. Karen Oppenheim Mason is of the opinion that population programmes that are designed to lower fertility, either violates or enhances human rights. This question, she argues, revolves not only in the manner in which a population programme is organized, but more importantly, around the issues of what constitutes a human right and whether certain government actions invariably violate such rights. There is no international consensus on the priority among different human rights, and in the absence of a consensus, the question of whether population programmes harm or enhance human rights cannot be answered generally, even if particular programmes that infringe on certain rights can be identified. Programme features that lend themselves to the abuse or enhancement of particular rights can, however, be identified. Mason argues that central to the debate about human rights and population policies is the conflict between individual liberties (right to life and liberty, right to freedom of thought and expression, and the like) or social entitlements or claim rights (right to a standard of living, education, employment and the like). Where individual rights conflict with claim rights, governments of developing

countries may favour claim rights. Mason argues that from an ethical standpoint, this choice is perfectly defensible because both types of rights are given equal weight in human rights conventions, such as those of the United Nations.

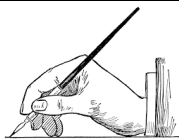
Mason notes that ethical evaluations of population programmes and policies reflect not only the characteristics of programmes and policies but also of the evaluator. The stronger the belief that rapid population growth has negative consequences, that programmes and policies are necessary to reduce growth rates, that methods for birth control are safe, and that it is acceptable to limit individual freedom for the sake of collectivity, the more likely is the individual to support fertility lowering programmes and policies.

14.4 POVERTY AND ECONOMY IN DEVELOPING COUNTRIES

Even though developing countries are advancing in terms of progress being made nationally, their achievements have not yet percolated down to the poor and marginal sections of society. The income levels of the poor increase far less rapidly than those of the richer segments of society. Economic development benefits developing countries in various spheres but the poorest groups are largely left outside in the sphere of economic expansion and material improvements. There are two aspects to this phenomenon. First, the impressive growth record of the Third World as a whole conceals the fact that most of the poorest countries, containing the principal concentrations of the world's poor, have experienced lesser increases. Second, and equally important, there is mounting evidence that the growth processes underway in most developing countries are such that incomes of the poorer groups increase more slowly than the average. There are debates centred around the design of policies to offset these trends. Proponents of a New International Economic Order consider the major objective to be the acceleration of growth in developing countries

with special concessions to the poorest among them. On the other hand, some give greater weight to policies to improve the internal distribution of income, including direct measures to satisfy the basic needs of the poorest groups.

CHECK YOUR PROGRESS



1. Fill up the gap: Proponents of a consider the major objective to be the acceleration of growth in developing countries with special concessions to the poorest among them.

14.4.1 Population and Poverty

Population trends and dynamics can have an important bearing on the prospects of poverty reduction and sustainable development. Poverty is influenced by and in turn influences population dynamics, including population growth, age-structure and rural-urban distribution. All these have a critical impact on a country's development prospects and prospects for raising the living standards of the poor. Dennis Ahlburg finds that rapid population growth is often held to be a major cause of poverty, but evidence of direct effects of population growth on poverty have not been completely ascertained.

Lacking direct evidence on the effect of population growth on poverty, attention has been turned towards empirical evidence by Dennis Ahlburg. The focus has been on the impact of high fertility or rapid population growth on variables that are associated with poverty. For an individual, the most important of these are low earnings, lack of land and human

capital (education and health) and large families. Poverty is also potentially related to certain macroeconomic factors: slow economic growth and inequitable distribution of income. It is to be noted that indirect evidence suggests that population growth may contribute to the growth of transmission of poverty across generations. In addition, with densely populated poor nations with pressures on land, rapid population growth will increase landlessness and reduce the free bounty of the common environment and hence is likely to increase the incidence of poverty. The adverse effects of rapid population growth on child health possibly increase poverty in the next generation.

14.4.2 Population And Economy

Low population growth in high-income countries is likely to create social and economic problems. On the other hand, population growth in low-income countries may slow their development. It is assumed that international migration could help to adjust these imbalances but many have opposed such a train of thought. Many analysts believe that economic growth in high-income countries is likely to relatively slow down considerably. Others argue that population growth has been and will continue to be problematic as more people inevitably use more of the finite resources available on earth, thereby reducing long term potential growth. Drawing on an economic analysis of inequality, it appears that lower population growth and limited migration may contribute to increased national and global economic inequalities. In his book on inequality, Thomas Piketty (2014) observes that economic growth always includes a purely demographic component and a purely economic component, and only the latter allows for an improvement in the standard of living. Economic growth is measured by changes to a country's Gross Domestic Product (GDP) which can be decomposed into its population and economic elements by writing it as population times per capita GDP.

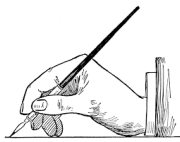
India's population is large relative to its resources (particularly agricultural land) and also has a large potential for further rapid growth in the near future. Most importantly, because of India's large size, India must find a solution to its economic and demographic problems mainly within its own borders rather than through international trade and the almost universal desire of countries to industrialize rather than to specialize in agricultural production. It is quite improbable that a country as large as India could count on obtaining a very large fraction of the food supply for a population substantially larger than the present population by exporting industrial products and importing food.

14.5 EFFECTS OF ECONOMIC DEVELOPMENT

Economic development, according to the theory of demographic transition, has the effect of bringing about a reduction in death rates. Economic development involves the evolution from a predominantly agrarian peasant economy to an economy with a greater division of labour, using more elaborate tools and equipment, being more urbanized, more oriented to the market sale of its products, and characterized by rapid and pervasive technological changes. It also involves improvements in transportation (notably in Europe, the United States, Canada, Australia and New Zealand, and later in Japan) of bringing about a striking reduction in death rates. The reduction in death rates may be ascribed partly to greater regularity in food supplies, to the establishment of greater law and order, and to other fairly direct consequences of economic change. Other factors contributing to the mortality decline can be cited as improvements in sanitation, the development of vaccines and other means of preventive medicine, and rapid strides made in the treatment of disease. These are also considered as indirect consequences of economic development.

One of the features of economic development is typically increasing urbanization. Usually, children are considered more of a burden and less of an asset in an urban setting in contrast to perceptions in rural areas. The entire process of economic change, however, weakens traditional customs and beliefs. In most countries that have undergone an economic transition from an agrarian to an industrialized, market-oriented economy, the custom of the small family norm has started in the urban groups at the higher end of the socio-economic scale and has spread to smaller cities, lower income groups, and eventually to rural areas.

CHECK YOUR PROGRESS



1. Fill up the gap: The whole process of economic change, moreover, the force of traditional customs and belief.

14.5.1 Economic and Social Development and Mortality

At the macro level of analysis, the relationship between economic development and mortality has been frequently examined using per capita gross domestic product (GDP) or national income as the measure of development. The level of economic development determines, to a degree, the extent to which public resources may be turned to social welfare programs, the development of educational facilities, sanitation and environmental protection, and health care.

Also, the influence of economic conditions on health and mortality has long been recognized, although originally the emphasis was probably more on the impact of economic hardships than on the influence of affluence. Irregularities in food supply were well known and reported in

ancient records, which describe, for example, the impact of shortages on mortality.

14.5.2 Effects of Population Growth on Economic Development

The effects of population growth can be positive or negative depending on the situation. A large population has the potential to be beneficial for economic development: it is believed that more human force can yield great economic results and development, but this is not easy to achieve in countries where resources become scarce amidst a growing or large population. Population growth has an effect on economic development which can be analysed through three aspects namely size of a population, its growth rate and its distribution. The relation between population size and per capita income is the subject to which optimum population theory has been addressed. The relationship of size to the desired growth rate appears fairly straight forward. If optimum population theory indicates that a population is too large, a negative growth or decline is advantageous, and any smaller positive growth rate is to be preferred to a larger one. Optimum population is, in essence, an exercise in comparative economic statistics.

14.6 SUMMING UP

- According to the United Nations, developing countries are nations that have low living standards, underdeveloped industrial base and low human development index (HDI).
- Vernon Ruttan said that in the absence of increases in the quality and quantity of land and renewed investment in agricultural research and technologies, sustainable growth in agricultural production cannot be sufficient to meet the increasing demand for food generated by a rapid growth of population and rising income levels.
- Increased demand for housing leads to higher prices, shortages and reduced quality of housing, all of which deeply affect the welfare of a population.

- With no international consensus on the priority among different human rights, and in the absence of a consensus, the question of whether population programmes harm or enhance human rights cannot be answered generally, although specific programmes that infringe on particular rights can be identified.
- Poverty is influenced by and influences population dynamics, including population growth, age-structure and rural-urban distribution.
- India must find a solution to its economic and demographic problems mainly within its own borders rather than through international trade and the nearly universal desire of countries to industrialize rather than to specialize in agricultural production.
- The level of economic development determines, to a degree, the extent to which public resources may be directed to social welfare programmes, the development of educational facilities, sanitation and environmental protection, and health care.
- Population growth has an adverse effect on economic development which can be analysed through three aspects namely, the size of a population, its growth rate and its distribution.

Glossary

- **Affluence:** a person or country having a great deal of wealth
- **Ascertain:** to find out or determine something
- **Augment:** to increase something
- **Impediment:** an obstacle in doing or achieving something
- **Paucity:** the presence of something in a small quantity
- **Pervasive:** something that is widely prevalent

14.7 QUESTIONS

A. Short type question (Answer within 150-200 words):

1. Briefly explain the links between population growth and food supply.
2. Briefly explain the position of population in developing countries.

B. Essay type question (Answer within 300-400 words):

1. Examine the relationship between poverty and economy in developing countries.
2. How, if at all, are economic development, social development and mortality related to each other?

14.8 RECOMMENDED READINGS AND REFERENCES

Ahlburg, D A., Kelley, A C., Mason, K O., (2013). *The Impact of Population Growth on Well-Being in Developing Countries*. Springer Science & Business Media.

Programme	Eligibility	Programme Coordinator
MA in Mass Communication	Bachelor's Degree in any discipline	Ms. Madhusmita Boruah madhu@tezu.ernet.in 03712-275359 Dr. Uttam Kr. Pegu uttamkp@tezu.ernet.in 03712-275455
MA in English	Bachelor's Degree in any discipline	Dr. Suchibrata Goswami suchitu@tezu.ernet.in 03712-275358 Dr. Pallavi Jha pjefl@tezu.ernet.in 03712-275215
MA in Sociology	Bachelor's Degree in any discipline	Ms. Ankita Bhattacharyya ankita@tezu.ernet.in 03712-275359 Dr. Amiya Kr. Das amiyadas@tezu.ernet.in 03712-275805
PG Diploma in Human Resource Management	Bachelor's Degree in any discipline	Dr. Runumi Das runumi@tezu.ernet.in 03712-275015
PG Diploma in Environmental & Disaster Management	Bachelor's Degree in any discipline	Dr. N. Gogoi nirmali@tezu.ernet.in 03712-275609 Dr. Dipak Nath dipak@tezu.ernet.in 03712-275306
PG Diploma in Renewable Energy and Energy Management	BE/B.Tech or M.Sc in Physics or Chemistry	Dr. S. Mahapatra sadhan@tezu.ernet.in 03712-275306
PG Diploma in Child Rights and Governance**	Bachelor's Degree in any discipline	Dr. Subhrangshu Dhar sdhar@tezu.ernet.in



The Centre for Open and Distance Learning (earlier Directorate of Distance Education) was established in 2011 with the aim of disseminating knowledge and imparting quality education through open and distance learning mode. The Centre offers various post-graduate, undergraduate, diploma and certificate programmes in emerging areas of science & technology, social sciences, management and humanities with flexible system to cater to the needs of the learners who otherwise cannot avail the regular mode of education. The basic focus of the Centre is to prepare human resources of the region and the country by making them skilled and employable.

Centre for Open and Distance Learning
Tezpur University (A Central University)
Tezpur, Assam -784028
India

Visit us at: http://www.tezu.ernet.in/tu_codl