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Environmental and Population Education

SEMESTER – IV

EDUCATION

COURSE 02

BLOCK II

ENVIRONMENTAL EDUCATION

KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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COURSE INTRODUCTION

This is the course in Education for the fourth semester of two years Master Degree level. The course consists of two blocks. The course has been designed to familiarise the learners with the concept and importance of environmental education and make them aware of environmental problems, along with the various mechanisms of environmental protection and promotion. Further, the course enables the learners to understand the basic concept of population education and the consequences and effects of population growth, in addition to introducing them with the various strategies of population control through population education.

BLOCK INTRODUCTION (COURSE 2, BLOCK 2)

This is the second block of the course. This block covers the second part of the course, which is "Population Education". The block comprises a total of six units, from unit 10 to 15. The Unit 10 titled **Population Education** deals with the meaning, nature, scope and need of population education. The Unit 11 titled **Population Dynamics** deals with the nature and components of population dynamics, demographic characteristics and population control measures. The Unit 12 titled **Methods of Population Education** in which a discussion have been made on different methods of teaching population education like- Observation method, Self –study method, Discussion method, Lecture method, Assignment and Field study. The Unit 13 titled **Population Education and Quality of Life** discusses the meaning of quality of Life, population related to quality of life, small family norms and family planning. The Unit 14 titled **Role of Mass-Media in Population Control** discusses the population control, concept of mass-media, significance of mass-media for population control, role of mass-media in population control, newspaper, radio, television and other audio-visual aids. The Unit 15 titled **Population Growth and Educational Development** deals with the concept of population growth, causes in context of India, quality of education and population growth, population growth and role of different modes of education to control it.

While going through this block, you may come across some boxes along-side, which are put on the left side or right side of the text. These boxes will explain the meaning of some words and concepts within the text. Apart from this, there will be some broad and short questions which have been included under 'ACTIVITY' in some of the units and 'CHECK YOUR PROGRESS' in every unit. Activities will increase your thinking capacity because questions in the Activity box are not directly derived from the text. Hints on the answers to the short questions have been provided under section 'ANSWERS TO CHECK YOUR PROGRESS'. Besides, a few text-related questions have been provided in 'POSSIBLE QUESTIONS'. These questions will help to draw your attention on the probable topics for the examination purpose so that you can prepare for the same with confidence.

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UNIT 10 : POPULATION EDUCATION

UNIT STRUCTURE

10.1 Learning Objectives

10.2 Introduction

10.3 Concepts of Population Education

- 10.3.1 Nature of Population Education
- 10.3.2 Objectives of Population Education
- 10.3.3 Scope of Population Education

10.4 Need and Importance of Population Education

10.5 Let Us Sum Up

10.6 Further Reading

10.7 Answer To Check Your Progress

10.8 Possible Questions

10.1 LEARNING OBJECTIVES

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

- define the concept of Population education;
- describe the nature of Population education;
- describe the objectives of Population education;
- explain the scope of Population education; and
- discuss the need and importance of Population education.

10.2 INTRODUCTION

All of us acknowledge that population explosion is one of the most fundamental problems of the world which adversely affects various aspects of quality life of the people as a whole, especially for developing countries like India. Owing to rapid population growth problems such as- poverty, unemployment, improper housing, malnutrition, under-nutrition, pollutions, wars, juvenile delinquency, water scarcity, illiteracy, political instability, terrorism, human trafficking etc. have been on the increase day by day across the globe. The current world population is 7.7 billion as on October

2019 according to the most recent United Nations estimates elaborated by Worldometers. According to current projections, the global population will reach eight billion by 2024, and is likely to reach around nine billion by 2042. In case of India, the current population is estimated at 136.65 crores in 2019 at midyear according to UN data. Some basic information shall make the matter more clear. India has 17.71 per cent of global population and 2.4 percent of land area on the globe. If current trend of population growth continues, India may overtake China in 2045 to become the most populous country in the world. As we know, the nucleus of economic and social development the country is to improve the quality of lives of people, so that they could be assets to the society by making themselves productive. However, without stabilising the population it is almost impossible for us to promote sustainable development with more equitable distribution in the country. Therefore, it is now being realised that the existing population control measures should be supported by formal education on awareness of growing population problems in order to develop the right attitude among youngsters at an early age so that they are able to make rational decisions. As children of today will be the parents of tomorrow therefore, through population education we may strengthen and enlarge this area of commitment towards checking population growth by developing right attitudes and approaches amongst the vast young population.

In this Unit we shall study the basics related to the concept of Population education. Here, we shall explain the nature, scope and different meanings and definitions of Population education. Also, we shall also discuss the need and importance of population education to check the problem of population explosion in the country. Thus, the overall focus of the present Unit is to provide the learner with a conceptual clarity on the term Population education and help you to realise the need and importance of Population education in the context of rapid population growth in the country.

10.3 CONCEPTS OF POPULATION EDUCATION

You might have come across the concepts like birth control, family planning and sex education, etc. in relation to population control in your

day-to-day life. Here, we are going to introduce you to a much wider concept than these, i.e. Population Education. Though many people use the term population education interchangeably with birth control, family planning and sex education, etc. however, there are subtle differences in the same. Population education as the name itself indicates is an education programme and the term consists of two words Population and Education. Population, in general, refers to the total number of people inhabiting in a specified geographical area, be it a village, district, country or the world as a whole; or belonging to any particular race, religion, sex, class, caste, group, community, and so on. Education is the process that imparts, improves or changes the knowledge, information, understanding, attitudes, skills, abilities, practices and so on of the people for their effective performance in life as an individual and as a member of the family, society, nation and the world. Having considered the two terms, 'population' and 'education', deciding on what kind of education to be imparted to which section of population to gain an insight into population matters and to what extent poses a serious challenge to population educators and educationists.

According to UNESCO (1970), "Population education is an educational programme which provides for a study of population situation of the family, community, nation and world with the purpose of developing in the students rational and responsible attitudes and behavior towards that situation." Stephan Viderman defines population education as 'the process by which the student investigates and explores the nature and meaning of population process, population characteristics, the causes of population change and consequences of these processes, characteristics and changes for himself, his family, his society and the world.'

Population education therefore involves people in the learning process and widens their understanding of population related issues in a broader perspective and helps in developing appropriate skills in analysing and defining the issues in a way which is both personally meaningful and socially relevant. Further, population education develops not only proper attitude among students towards population problems but also develops the capacity to take rational decisions towards problems arising out of rapid

population growth. In fact, population education covers any or all matters related to population that influence(s) development, standard of living and quality of life. Thus, population matters are comprehensive and inclusive thereby forming the content of Population education that enables people or the target groups to take rational and responsible decisions in this regard.

As stated above, Population education is neither family planning nor sex education. There is some difference. Whenever we talk of sex education, the stress is on prevention of sexual disease and on family planning. Family planning is one of the themes of population education. On the other hand, in sex education, stress is laid on an individual whereas in population education, the emphasis is on the interaction between individual, family, society in national context. Further, family planning is for married couples which is purely a clinical or medical approach. On the contrary, Population education is purely an educational programme in order to create awareness and develop understanding.

The following are some definitions of population education which shall help you in grasping the concept more clearly and precisely:

According to Dr. V.K.R.V. Rao, "….Population education is essentially related to human resource development. Thus, population education is not only concerned with population awareness but also with developing values and attitudes so that both quality and quantity (of population) are taken care of."

According to Burbson, "Population education is an exploration of knowledge and attitudes about population, family and sex. It includes population awareness: family living, reproduction education and basic values."

According to R.C. Sharma, "Population education is the study of human population in relation to his environment with a view to improve his quality of life without adversely affecting the environment."



CHECK YOUR PROGRESS

Q 1: Define Population education.

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Q 2: Distinguish Population education from similar concept.

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10.3.1 Nature of Population Education

Population education is relatively a new field of study. As we know, population matters are not constant and keep changing. Accordingly, the concept of population education has gradually evolved by adapting itself to the changing needs, requirements and emerging issues and concerns. Keeping this point in mind, the nature of population education is summarised as below:

1. The population by its very nature is referred not only to the quantitative aspect or just an essay in numbers but also to the qualitative aspects on human population, i.e. quality of life. Population education, therefore, is essentially, related to human resource development.
2. Population education is purely an educational programme.
3. Population education programme like any other educational programme helps the students in developing their knowledge, understanding, skills, attitudes and values with regard to its content materials.
4. Its concept is multi-disciplinary and related to a number of disciplines.
5. It provides a learning situation for understanding population situation in family, community, nation and the world at large.

6. It helps to understand the implications of population factors for the well being of the individual, the family and the society.
7. Population education studies the relationship of man and environment with regard to his quality of life.
8. What makes population change over time constitutes a primary concern of population education.
9. It is equally concerned with the effects that such changes can produce in families, communities, nations and the world.
10. Population education involves the study of the probable causes and consequences of population change. These causes and consequences may be biological, social, economic, political and cultural in nature.
11. The content of Population education mainly revolves around relationship between population factors on one hand and various socio-economic processes on the other.
12. Population change and development are interdependent. Population change at any level - family, community or nation - is the result of decisions based on certain considerations, which they consider rational in the given situation/context. Whether the decisions are rational or not depend upon their understanding of all the relevant matters at that particular level. This is what is precisely meant by Population education - knowledge, understanding, attitudes and practices/behaviours of people in respect of their population situation - that is intended to lead to such - population change, influence the quality of their lives, both at present and in the future. Therefore, it has bearing on various population matters at both the micro and macro levels in the present and the future.

10.3.2 Objectives of Population Education

The following general objectives of Population education have been decided at a workshop organised by NCERT (1971) at New Delhi which are mentioned below:

i) to develop an understanding of some demographic concepts and processes;

ii) to develop among the younger generation an understanding of the most important phenomenon of the modem world viz., rapid growth of population and its causes;

iii) to develop an understanding of the influence of population trends on the various aspects of human life - social, cultural, political and economic;

iv) to develop an understanding of the close interaction of population growth and the developmental process with particular reference to development programmes for raising peoples living standards;

v) to develop an understanding of the evil effects of over population on the environment and the concomitant dangers from pollution;

vi) to develop an understanding of scientific and medical advancement enabling to get an increasing control over famines, diseases and ultimately death and imbalance thus created between death rate and birth rate;

vii) to develop an understanding of biological factors and phenomenon of reproduction which are responsible for continuance of the species;

viii) to develop an appreciation of:

   a) the small family norm as proper and desirable;

   b) the relation between population size and the quality of life; and

   c) the fact that family size is a matter of deliberate choice and human regulation rather than of accident or forces beyond human control;

ix) to develop an attitude of responsibility and mutual help and cooperation in all aspects of personal and family living;

x) to develop an appreciation of the relationship between the keeping mother healthy, the welfare of the children and the

small size of the family;

xi) to develop an appreciation of the fact that the actions of each individual member of the society affects others, and personal and national decisions concerning family size and population have long range consequences for the whole world;

xii) to develop an awareness of population policies and programmes of the country; and

xiii) to provide students with a basic demographic vocabulary so that they are able to read and interpret demographic material with some understanding.



CHECK YOUR PROGRESS

Q 3: Briefly describe the nature of Population education.

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Q 4: Write any three major objectives of Population education.

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10.3.3 Scope of Population Education

From the foregoing discussion you might able to perceive the content of population education that provides us an idea of the scope of population education. The scope of population was essentially demography-laden. In course of time, the content has been elaborated and specified to include various other concepts, thereby, enlarging the scope of Population education. Population education is a multidisciplinary and value-laden educational programme aimed at improving the quality of life at present and in future. Its content is to be drawn from demography, population dynamics, population studies, sex education, family planning and

population policies and programmes. Its content, thus, is to be judiciously derived from several academic disciplines such as demography, sociology, geography, economics, psychology, biology, ecology, population studies, medicine, etc. Broadly and in general, it can be said to include the following aspects:

i) **Demography:** It is the study of population and deals with the measurement and analysis of birth rate, death rate, migration rate, etc. Birth, death and migration are the major elements of demography. Population change is a biological process. Demography includes birth rate, death rate, sex ratio, dependency ratio, and age-sex pyramid and population growth rate.

ii) **Consequences of Population growth**: Rapid population growth directly affects various aspects of human life -biological, social, economic and cultural; environment and ecological balance, and on development and welfare programmes of the country. The adverse effects of population growth on people's health are important parts of population education. It also deals with analysis of population growth and its consequences in daily life.

iii) **Determinants of Population Change:** Population change in a place takes place due to birth, death and migration. It also comprises biological, social and cultural aspects which directly affect the elements of population change. It also analyses the factors like poverty, practices which influences population change.

iv) **Human Sexuality and Reproductive System:** It includes the fundamental aspects of human sexual and reproduction process like sexual behaviours, development of human reproductive system and associated problems. The scope of population education helps to develop a positive attitude towards reproductive health.

v) **Planning for the Future:** It includes various aspects of

population management like appropriate age at marriage and first conception birth spacing, family planning, family welfare and use of contraceptives.

The following points are also taken into consideration while discussing about the scope of population education:

The quality of life has increasingly been the focal aspect of Population education. In view of this, NCERT (1988) has built the conceptual framework of Population education around six major themes, namely: i) family size and family welfare, ii) delayed marriage, iii) responsible parenthood, iv) population change and resource development, v) population related beliefs and values, and vi) status of women. The content focusing on these themes is drawn from six content areas: i) population and economic development, ii) population and social development, iii) population, environment and resources, iv) population and family life, v) population, health and nutrition, and vi) population dynamics.

Besides the above mentioned content areas, the emerging issues such as problems of adolescents, sexually transmitted diseases including AIDS, urbanisation and concern for the aged are woven into this conceptual framework.

On the other hand, since the Millennium Summit 2000 in which the goals of population and development education have become integral part of the Millennium Development Goals (MDGs), the content and scope of population and development education have increased widely. It includes any aspect that has any form of relevance to achieving the goals of MDGs such as: eradicating poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality rates; improving maternal health; combating HIV/AIDS, malaria, and other diseases; ensuring environmental sustainability; and developing a global partnership for development.

At length, it may be mentioned that the objectives, content and scope of population education vary from target group to target

group depending upon their educational level as well as national, local needs, individual needs and problems.



CHECK YOUR PROGRESS

Q. 5. Mention some important content areas that are come under the scope of Population education.

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Q. 6. Briefly explain how the scope of population education is related to the MDGs.

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10.4 NEED AND IMPORTANCE OF POPULATION EDUCATION

As mentioned above, if the current trend of population growth continues, India may overtake China in 2045, to become the most populous country in the world. Though population explosion is a world-wide problem, however, the magnitude of the problem and the urgency to gauge its seriousness are perhaps nowhere as pressing as they are in India. India alone accounts for about 17.71 per cent of the world's population with no more than 2.4 percent of the total area of the world. There is thus the pressing need to spread population education in developing countries like India in particular and the world in general, which suffers from the problems of ever increasing population.

The human beings, by contributing to rapid growth of their population are endangering their individual, familial, social and national well-being. Therefore, a man-made problem and effective solution should also evolve from his rational thought and action i.e., rational mind and behaviour. This is possible mainly by educating people regarding their role with respect to

population problems and issues - Population education.

In the light of the above discussion, the need and importance of Population education is explained below.

1. The population situation may be defined as the interrelationships between births and migration and other aspects of life. Due to high birth rate and low death rate, there is rapid growth of population which seriously affects the country's welfare, economy and values. Therefore, family planning education is necessary to lower the high rate of population growth. Its purpose is to create awareness regarding the frequency of births that may be controlled by using modern contraceptive techniques, as well as to present the advantages of this reduction in births, etc. Birth control programmes have been launched in the country and are directed towards couples with a single child and where the couples are in the reproductive age group. However, there are no serious efforts with regard to the launch population education programme for the younger generation. We are to start population education programme for children as today's children will be parents of tomorrow.
2. The younger generation should be well-informed regarding the consequences of population growth on the national, political, economic and personal life of people. Small children should be properly educated in order to lead a planned adult life. Therefore, it is the need of the hour to introduce Population education for youngsters to cultivate desirable attitudes among them towards population matters and to ensure their responsible behaviour in the future towards population problems.
3. Countries like India must invest huge amount of their resources in meeting the basic demands of the increasing population, owing to which, very little resources are left for improving the quality life of the people. As a result of that, the quality of life of people leads in general to deficiency of food and inadequate facilities for education and health etc. Hence, either to increase the quality of life or to maintain the existing quality of life, the population must not be allowed to grow

beyond its resources and, therefore, its control assumes very important task. As one of the strategies, every nation is involved in educating its people in matters pertaining to population with the purpose of enabling them to take rational decisions and implement them to reduce the growth rates with a view to promote quality of life.

4. Further, the other social problems that are caused due to population explosion such as crime, violence, anti-social activities, juvenile delinquency, terrorism, etc., and environmental problems such as pollution, global warming and ecological imbalance would also increase. Population education can alone provide lasting solutions to all such problems.
5. Population education being an educational programme is capable of influencing the knowledge, skills, attitudes and practices of people with regard to population matters. It has been shown by many investigations that knowledge influences attitudes and attitudes in turn influence practices. Population education, therefore, becomes a pre-condition for desirable practices with regard to population matters.
6. Population education helps in establishing equality of sexes by helping women to acquire their rightful status and become equal partners in progressing towards the overall goal of accelerating the pace of socio-economic development. Let us hope that Population education can be a means through which women would be able to take their own decision in all walks of their life-individual, family, community and society at large.
7. Population education may help people recognise and define the nature of problems which have population components. It may help them realise better, how problems arise and what consequences their decisions and action will have. Within a developmental context, it may be designed to help people comprehend the social and economic development which to some extent is influenced by population process and that their decisions may depend upon the social and economic status of a society or nation.
8. Population education may be used as an instrument for social change.

There are many people in our country whose life is still governed by blind faith, superstition, dogma and fatalism and these factors may also be considered responsible for high population growth in the country. Population education as an agent of change has great potentiality to inculcate rational humanism among students, imbued with the spirit of scientific inquiry that will help in removing ignorance and superstitions from the society.

9. Population education directly or indirectly helps in establishing a true democratic society. Thus, it is clear that the lesser is the population the better is the democracy.

10. Population education, being behavioural and multi-disciplinary in nature is a powerful device in promoting changes with regard to values. It helps to learn or to find out how best can we impart value-oriented education and ensure that children do develop a value system, inculcate socially desirable attitudes, widen their cognitive map, and imbibe the spirit of human affiliations.



10.5 LET US SUM UP

- Population education is an educational programme which provides for a study of population situation of the family, community, nation and world with the purpose of developing in the students rational and responsible attitudes and behavior towards that situation.
- Population education covers any or all matters related to population that influence (s) development, standard of living and quality of life.
- Population education is neither family planning nor sex education.
- Sex education is given stress on prevention of sexual disease and on family planning.
- Family planning is one of the themes of population education.
- Sex education stresses or emphasizes on individual whereas in population education, it is the interaction between individual, family,

society in national context.

- The concept of Population education has gradually evolved by adapting itself to the changing needs, requirements and emerging issues and concerns.
- Conceptualisation of Population education is of course rooted in complex socio-cultural and historical differences.
- Population change and development are interdependent.
- The objective of Population education is to develop an appreciation of the fact that the actions of each individual member of the society affects others, as well as personal and national decisions concerning family size and population which have long range consequences for the entire world.
- NCERT (1988) has built the conceptual framework of population education around six major themes. These are family size and family welfare, delayed marriage, responsible parenthood, population change and resource development, population related beliefs and values, and status of women.
- NCERT has identified six content areas, these are population and economic development, population and social development, population, environment and resources, population and family life, population, health and nutrition, and population dynamics.
- Population education deals not only with the cognitive domain but also with the affective domain of students.
- The human beings, by contributing to rapid growth of their population are endangering their individual, familial, social and national well-being. It is thus a man-made problem and effective solution should, therefore, also evolve from his rational thinking and action i.e., rational mind and behaviour. This is possible mainly through educating people on their role with regard to population problems and issues - Population education.
- Population education helps in establishing equality of sexes by helping women to acquire their rightful status and become equal partners in overall goal of accelerating the pace of socio-economic development.

- Population education, being behavioural and multi-disciplinary nature is a powerful device for promoting changes with regard to values.



10.6 FURTHER READING

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2) Gupta, P.K. (2012). *Population Education*. Meerut: R.Lall Book Depot.
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4) Seshadri, C., and Pandey, J. L. (eds). 1991. *Population Education: A National Source Book* Vol- I. New Delhi: NCERT.
5) Sharma, R. C. 1991. “An Overview of Population Education” in Seshadri, C. and Pandey, J. L. (eds). op cit.
6) http://egyankosh.ac.in/bitstream/123456789/43753/1/Unit-1.pdf



10.7 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Population education is an educational programme which provides for a study of population situation of the family, community, nation and world with the purpose of developing in the students rational and responsible attitudes and behavior towards that situation.

Ans. to Q. No. 2: The term Population education is sometimes used interchangeably with family planning or sex education. But there are some differences. Whenever we talk of sex education, the stress is on prevention of sexual disease and on family planning. Family planning is one of the themes of Population education. On the other hand, in sex education, stress or emphasis is on individual whereas in Population education, it is the interaction between individual, family,

society in national context. Further, family planning is for married couple which is purely a clinical or medical approach. On the contrary, population education is purely an educational programme in order to create awareness and develop understanding.

Ans. to Q. No. 3: Population education is relatively a new field of study. As we know, population matters are not constant and keep changing. Accordingly, the concept of population education has gradually evolved by adapting itself to the changing needs, requirements and emerging issues and concerns. Like-wise, the conceptualisation of Population education is rooted in the complex socio-cultural and historical differences of the society. Further, population change and development are interdependent. Population change at any level - family, community or nation - is the result of the decisions based on certain considerations, which they consider rational in the given situation/context. Whether the decisions are rational or not depends upon their understanding of all the relevant matters at that particular level. This is what precisely means Population education.

Ans. to Q. No. 4: The three major objectives of population education are as below: (i) To develop among the younger generation an understanding of the most important phenomenon of the modem world viz., rapid growth of population and its causes; (ii) to develop an understanding of the influence of population trends on the various aspects of human life - social, cultural, political and economic; and (iii) to develop an appreciation of the fact that the actions of each individual member of the society affects others, as well as personal and national decisions concerning family size and population have long range consequences for the entire world.

Ans. to Q. No. 5: Following are the some important content areas that are come under the scope of Population education: i) population and economic development, ii) population and social development, iii) population, environment and resources, iv) population and family life, v) population, health and nutrition, and vi) population dynamics.

Ans. to Q. No. 6: The goals of population and development education

have become integral part of the Millennium Development Goals (MDGs) since 2000, the content and scope of population and development education have increased widely to include everything that has any relevance to achieving the MDGs, namely: eradicating poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality rates; improving maternal health; combating HIV/AIDS, malaria, and other diseases; ensuring environmental sustainability; and developing a global partnership for development.



10.8 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 50 words)

Q 1: Write the meaning of population education in your own words.

Q 2: What are the distinguishing attributes of population education?

Q 3: Write any five MDGs goals set by Millennium Summit 2000.

B) Short Questions (Answer each question in about 150 words)

Q 1: How population change is related to development?

Q 2: How does Population education establish gender equality in society?

Q 3: How does Population education content an integral part of different subjects?

C) Long Questions (Answer each question in about 300-500 words)

Q 1: Describe the objectives of Population education.

Q 2: Explain the scope of Population education.

Q 3: Discuss the need and importance of Population education.

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UNIT 11 : POPULATION DYNAMICS

UNIT STRUCTURE

11.1 Learning Objectives

11.2 Introduction

11.3 Nature of Population Dynamics

11.4 Component of Population Dynamics

- 11.4.1 Natural Increase
- 11.4.2 Migration

11.5 Demographic Characteristics

11.6 Population Control Measures

11.7 Let Us Sum Up

11.8 Further Reading

11.9 Answer To Check Your Progress

11.10 Possible Questions

11.1 LEARNING OBJECTIVES

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

- describe the concept of population dynamics;
- identify the components of population dynamics;
- explain the demographic characteristics of population dynamics and
- discuss population explosion and measures to control it.

11.2 INTRODUCTION

Population is a group of individuals of the same species that occupy a specific area over a certain period of time. Population dynamics refers to how population of a species changes over time. The study of a species' population dynamics usually seeks to answer questions such as: What explains average abundance of a population? What causes fluctuations in abundance? This Unit will discuss how and why population changes in size and structure over time. Important factors in population dynamics include rates of reproduction, death and migration will be discussed in this Unit.

11.3 NATURE OF POPULATION DYNAMICS

There are several processes that occur simultaneously that can affect population size and dynamics. First, population size is influenced by the per capita population growth rate, which is the rate at which the population size changes per individual in the population. This growth rate is determined by the birth, death, emigration, and migration rates in the population. When the per capita growth rate remains constant, the population can experience exponential growth followed by exponential decline. Interestingly, Charles Darwin was one of the first scientists to realize that high rates of population growth can cause massive mortality events. He related this to evolutionary changes in heritable traits or genes. The maximum per capita growth rate for a population is called the intrinsic rate of increase.

As a population grows in an area, a population may experience the effects of increased densities. In a given area, the maximum population size of the species that the environment can sustain is called the carrying capacity. Carrying capacity is determined by the amount of available resources (food, habitat, water etc.). As the density of individual in a population increases, these individuals must begin competing for limited resources with each other (same species, or intra-specific competition) or with other species (inter-specific competition). If the population grows indefinitely, less and less resources will be available to sustain the population. This process in which per capita population growth changes when population density changes is referred to as **density dependence**.

Humans can be studied from a variety of academic perspectives. In some biological disciplines the focus may be on parts of individuals, perhaps even molecular parts, while in others humans are considered zoologically as an entire species, *Homo sapiens*, in the order *Primatii*. Some biologists are concerned with the physiological functioning body of an individual, while others are interested in world-wide human diversity, distribution and population groupings. Among the social sciences, the focus is also frequently on the group, but here the emphasis tends to be upon the social and cultural factors which underpin the way such phenomena as societies, communities and ethnic groups are constructed, delimited and defined.

There are also the behavioural sciences, which utilize both biological and social information in relation to the study of the group, the individual or elements in the behaviour of the individual. The twentieth century began with observers of the human condition integrating, in what we now recognize to be a confused way, their ideas on the biological and social nature of humans. During the century the fragmentation of all disciplines grew, something exemplified most particularly in the divergence between biological and social pursuits of knowledge. This in turn fuelled many bitter debates between some biologists and some social scientists who were insufficiently informed on the theories and use of language of their antagonists.

11.4 COMPONENT OF POPULATION DYNAMICS

The major components of **population dynamics** are Birth Rate, Death Rate and Migration. Birth rate is the number of live births per thousand persons in a year. It is a major component of growth because in India, birth rates have always been higher than death rates. Death rate is the number of deaths per thousand persons in a year and Migration is the movement of people across regions and territories. Migration can be internal or international. Internal migration does not change the size of the population, but influences the distribution of population within the nation. Migration plays a very significant role in changing the composition and distribution of population.

The change in the population from births and deaths is often combined and referred to as *natural increase* or *natural change*. Population grows or shrinks depending on if they gain people faster than they lose them. Looking at an area's unique combination of natural change and migration helps us to understand why its population is changing, and how quickly the change is occurring.

11.4.1 Natural Increase

Natural change is the difference between births and deaths in a population. Often times, natural change is positive, which means

that more babies are being born than people are dying. This positive natural change is referred to as *natural increase*. Examples of natural increase exist across the United States, one being the Salt Lake City metro area in Utah. Between 2014 and 2015, Salt Lake City had around 19,100 births and 6,400 deaths. Since there were about 12,700 more births than deaths, Salt Lake City had a natural increase of about 12,700 people, making natural increase a key reason why its population grew over the year.

The opposite of natural increase is called *natural decrease*, where more people are dying than babies being born, which can cause a population to shrink. Areas with aging populations often have natural decrease. Two states had natural decrease between 2014 and 2015, Maine and West Virginia. Between 2014 and 2015, Maine had 450 more deaths than births and West Virginia had 940 more deaths than births. In both cases, natural decrease was one of the reasons why their population shrank between 2014 and 2015.

11.4.2 Migration

Migration is the movement of people from one area to another. It is often expressed as *net migration*, which is the difference between how many people move into and out of an area. When net migration is positive, a population has more people moving in than out. We split migration into *domestic migration* and *international migration*. Here, we give you two examples below from the United States of America (USA) to understand the domestic migration and international migration.

Domestic migration refers to people moving between areas within the state, and is often one of the largest contributors to population change. In the USA, regionally, the South gains the most net domestic migrants, with roughly 440,000 more people moving into southern states than leaving them between 2014 and 2015. Sometimes net domestic migration is negative, in which case more people are moving away than are moving in. For example-the

Chicago metro areas in Illinois, Indiana, and Wisconsin lost about 80,000 people through migration between 2014 and 2015, which is consistent with a long-standing pattern of negative net domestic migration for the metro area.

International migration refers to people moving into and out in a nation. For example- the United States consists of a diverse group of people such as foreign-born immigrants from many countries around the world, members of the U.S. Armed Forces, and U.S. citizens working abroad. Some areas, like the Miami metro area in Florida, grow (in part) due to net international migration. Miami gained about 70,000 net international migrants between 2014 and 2015, making net international migration a major factor in Miami's population growth.

Natural change and net migration both contribute to population change, sometimes with unexpected results. Frequently, natural change and net migration push a population in opposite directions, making it more difficult to determine whether a population is growing or shrinking.

Overall, population grows or shrinks through two very basic components – natural change (births minus deaths) and migration (domestic plus international). As illustrated here, the balance between these components is unique in each area, while following general patterns across states or regions. This balance gives areas their own unique story as they change over time. Through the production of annual population estimates, and the types of analysis provided here, demography continues to be an important, ongoing focus of study at the Census Bureau that contributes to our understanding of where we've been and where we're headed in the future.



CHECK YOUR PROGRESS

Q. 1: What do you mean by population dynamics?

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Q. 2: Explain the concept of Migration.

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11.5 DEMOGRAPHIC CHARACTERISTICS

The term *demographics* refer to particular characteristics of a population. The word is derived from the Greek words for *people* (*demos*) and *picture* (*graphy*). Examples of demographic characteristics include age, race, gender, ethnicity, religion, income, education, home ownership, sexual orientation, marital status, family size, health and disability status, and psychiatric diagnosis. Demography is, in essence, the calculation of population numbers and population changes, and brings to bear many per species on the causes, patterns and consequences of fertility, mortality and migration. Since births, deaths and migration are central variables in the work of practitioners of the other disciplines which together form the 'Human Sciences', a full understanding of demography involves consideration of these other disciplinary approaches.

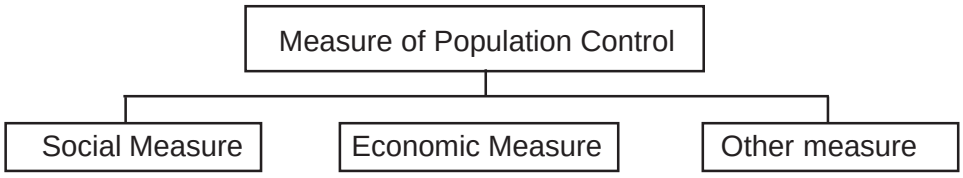
Demography is about analysing the growth (or decline) of human populations and changes in their structure. We cannot analyse population growth without some straightforward and unambiguous way of enumerating the members of a population, and this can only exist if we can work out who is, and who is not, to be included in the enumeration. To demographers, a *population* consists of any group of persons who can be delimited on the basis of some observable characteristic. The most common way is to define the population on the basis of residence within a given geographical area. Thus we speak, for example, of the 'population of England' as being all

those persons normally resident in England. However, residence is not the only criterion. We could delimit populations on the basis of tribal affiliation: the Luo population of Kenya, for example, using both geographical residence and membership of a particular tribe as criteria. Necessary features or characteristics used to delimit a population are that they be observable and well defined, so that we can use them to say whether any individual is or is not a member of the population at a given time. Notice that although these characteristics are used to distinguish populations, they themselves are inclusive: they are shared features which bind the members of a distinct population together. In order to be able to analyse population growth and change, it is essential to be able to identify the processes by which people enters or leaves population. It is fortunate for demographers that population only changes in size because of a limited, countable range of events. Consider, for example, the population of a particular country at some time, say 1 January 2000, which we might call P 2000.Then the population of that country on 1 January 2001, P2001, is equal to P 2000 plus the number of births during the year 2000, minus the number of deaths, plus the number of people who migrated into the country during the year, minus the number of persons who migrated out. The difference between the number of births and the number of deaths is known as *natural increase* (or *decrease* if deaths exceed births) and the difference between the number of immigrants and the number of emigrants is known as *net migration.* Analyzing changes in the size of human populations, therefore, involves the analysis of the processes by which births, deaths and migration events come about. The process which produces births is known as fertility; the corresponding process which results in deaths is called mortality. The three processes of fertility, mortality and migration are known as the components of population change. Demographers are interested particularly in the intensity with which these events occur in a particular population. Since a large population will tend to generate more events than a small population, the absolute numbers of, say, births and deaths in a particular time period are of limited use as measures of this intensity. Therefore, demographers use what are called rates. A demographic rate is a ratio of events of a particular type, for example

deaths, to the number of persons exposed to the risk of experiencing that type of event. Thus the crude death rate is equal to the number of deaths in a given period divided by the 'average' population during that period. It is normally important that the events and the population 'exposed to risk' correspond. That is, we need to make sure that the persons exposed to risk really are at risk of experiencing the event in question, and that we do not include events in the numerator which do not occur to persons in the denominator. There are some exceptions to this, one being the crude birth rate (number of births in a given period divided by the 'average' population during that period) in which men, who do not give birth, are included in the denominator. Because people are not all identical, all human population has a structure. By population structure demographers mean the distribution of various characteristics across the members of a population. The characteristics most commonly considered by demographers are sex and age.

11.6 POPULATION CONTROL MEASURES

Population of India is quite large and rapidly increasing. One percent growth rate means an addition of 1 crore people every year but actually speaking 2 crore persons are being adding every year. So, an effective population control measure is the need of the hour. We know that birth rate is mainly responsible for rapid population growth. Hence measures which can reduce the birth rate should be adopted. These measures can be classified into 3 heads.



A. Social Measure:

Population explosion is a social problem and it is deeply rooted in the society. So efforts must be taken to remove the social evils in the country.

1. **Minimum age of Marriage:** Fertility depends on the age of marriage. So the minimum age of marriage should be raised. In India minimum age for marriage, 21 years for men and 18 years for women have been fixed by law. This law should be firmly implemented and people should also be made aware of this through publicity.
2. **Raising the Status of Women:** There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.
3. **Spread of Education:** The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.
4. **Adoption:** Some parents do not have any child, despite costly medical treatment. It is advisable that they should adopt orphan children. It will be beneficial to orphan children and childless couples.
5. **Change in Social Outlook:** Social outlook of the people should undergo a change. Marriage should no longer be considered a social binding. Issueless women should not be looked down upon.
6. **Social Security:** More and more people should be covered under-social security schemes. So that they do not depend upon others in the event of old age, sickness, unemployment etc. with these facilities they will have no desire for more children.

B. Economic Measures:

The following are the economic measures:

1. **More employment opportunities:** The first and foremost measure is to raise, the employment avenues in rural as well as urban areas. Generally in rural areas there is disguised unemployment. So efforts should be made to migrate unemployed persons from rural side to urban side. This step can check the population growth.
2. **Development of Agriculture and Industry:** If agriculture and industry are properly developed, large number of people will get employment.

When their income is increased they would improve their standard of living and adopt small family norms.

3. **Standard of Living:** Improved standard of living acts as a deterrent to large family norm. In order to maintain their higher standard of living people prefer to have a small family. According to A.K. Das Gupta those who earn less than Rs. 100 per month have on the average a reproduction rate of 3.4 children and those who earn more than Rs. 300 per month have a reproduction rate of 2.8 children.
4. **Urbanisation:** It is on record that people in urban areas have low birth rate than those living in rural areas. Urbanisation should therefore be encouraged.

C. Other Measures:

The following are the other measures:

1. **Late Marriage:** As far as possible, marriage should be solemnized at the age of 30 years. This will reduce the period of reproduction among the females bringing down the birth rate. The govt. has fixed the minimum marriage age at 21 yrs. for males and 18 yrs. for females.
2. **Self Control:** According to some experts, self control is one of the powerful methods to control the population. It is an ideal and healthy approach and people should follow it. It helps in reducing birth rate.
3. **Family Planning:** This method implies family by choice and not by chance. By applying preventive measures, people can regulate birth rate. This method is being used extensively; success of this method depends on the availability of cheap contraceptive devices for birth control. According to Chander Shekher, “Hurry for the first child, Delay the second child and avoid the third.”
4. **Recreational Facilities:** Birth rate will likely to fall if there are different recreational facilities like cinema; theatre, sports and dance etc. are available to the people.
5. **Publicity:** The communication media like T.V., radio and newspaper are the good means to propagate the benefits of the planned family to the uneducated and illiterate persons especially in the rural and backward areas of country.

6. **Incentives:** The govt. can give various types of incentives to the people to adopt birth control measures. Monetary incentives and other facilities like leave and promotion can be extended to the working class which adopts small family norms.
7. **Employment to Woman:** Another method to check the population is to provide employment to women. Women should be given incentive to give services in different fields. Women are taking active part in competitive examinations. As a result their number in teaching, medical and banking etc. is increasing rapidly. In brief by taking, all these measures we can control the growth of population.

Population explosion is a vital issue now a day. This aspect of study is directly related to environmental consequences. Therefore, population education receives much importance these days, especially from lower level to higher level of education. Population education should not be misunderstood as sex education, family planning, family welfare project, family life education. But population education is an educational programme which studies the population situation in the family, in the community, in the nation and in the world. It is a relationship between population change and quality of life at the micro and macro-level. Population education enables those students to be aware of the process and consequences of the population growth on the quality of our lives and the environment. The child gets an opportunity to investigate and explore the interaction between population and their environments. The child also knows the causes and consequences of population increase at local, national and global level.



CHECK YOUR PROGRESS

Q. 3: What is social measure of population control?

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Q. 4: Explain women employability as a measure of population control tool.

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11.7 LET US SUM UP

- **Population dynamics** refers to how population of a species change over time. As a population grows in an area, a population may experience the effects of increased densities. In a given area, is the maximum population size of the species that the environment can sustain is called the **carrying capacity**. Carrying capacity is determined by the amount of available resources (food, habitat, water).
- Natural change is the difference between births and deaths in a population. Often times, natural change is positive, which means that more babies are being born than people are dying.
- Migration is the movement of people from one area to another. It is often expressed as net migration, which is the difference between how many people move into and out of an area. When net migration is positive, a population has more people moving in than out. We split migration into domestic migration and international migration.
- Demography is, in essence, the calculation of population numbers and population changes, and brings to bear many per species on the causes, patterns and consequences of fertility, mortality and migration.
- Population Control measures are some of the steps through which we can control the growth rate of population. These measures are categorized into social measure, economic measure and other measures.



11.8 FURTHER READING

1) Dash, B.N. (1996): “Principles of Education and Education in the Emerging Indian Society”, Delhi.

2) Macbeth, Helen, Collinson, Paul, and Collinson Paul (2002): “Human Population Dynamics: Cross- Disciplinary Perspectives”, Cambridge University Press.



11.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Population dynamics refers to how population of a species change over time. There are several processes that occur simultaneously that can affect population size and dynamics. First, population size is influenced by the per capita population growth rate, which is the rate at which the population size changes per individual in the population. This growth rate is determined by the birth, death, emigration, and migration rates in the population.

Ans. to Q. No. 2: Migration is the movement of people from one area to another. It is often expressed as net migration, which is the difference between how many people move into and out of an area. When net migration is positive, a population has more people moving in than out. We split migration into domestic migration and international migration.

Ans. to Q. No. 3: Population explosion is a social problem and it is deeply rooted in the society. So efforts must be taken to remove the social evils in the country. Some of the social measures are minimum age of marriage, raising the status of women, spread of education, adoption etc,

Ans. to Q. No. 4: Women should be given incentive to give services in different fields. Women are taking active part in competitive examinations. As a result their number in teaching, medical and banking etc. is increasing rapidly. In brief by taking, all there measures we can control the growth of population.



11.10 POSSIBLE QUESTIONS

A) Very Short Questions (Answer each question in about 50 words)

Q 1: What do you mean by carrying capacity?

Q 2: What is the meaning of density dependence?

Q 3: What do you mean by domestic migration?

B) Short Questions (Answer each question in about 150 words)

Q 1: Explain how international migration fuels in the growth of population.

Q 2: Explain the demographic characteristics of population.

C. Long Questions (Answer each question in about 300-500 words)

Q 1: Define the concept population dynamics. Describe the components of population dynamics.

Q 2: Describe the different measures taken to control population growth.

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UNIT 12 : METHODS OF TEACHING POPULATION EDUCATION

UNIT STRUCTURE

12.1 Learning objectives

12.2 Introduction

12.3 Various Methods of Teaching Population Education

- 12.3.1 Observation Method
- 12.3.2 Self –study Method
- 12.3.3 Discussion Method
- 12.3.4 Lecture Method
- 12.3.5 Project method
- 12.3.6 Assignment
- 12.3.7 Field Study

12.4 Let Us Sum Up

12.5 Further Reading

12.6 Answer To Check Your Progress

12.7 Possible Questions

12.1 LEARNING OBJECTIVES

After going through this unit you will be able to-

- explian the various methods of teaching population education;
- identify the merits and demerits of various methods of population education; and
- discuss the importance of various methods of teaching population education.

12.2 INTRODUCTION

The concept of population education emerged due to rapid growth of population in the world. It is generally known fact that population explosion has taken place all over the world. The increasing number of population enhances poverty and pollution to a greater extent in everywhere in the

present world. The rapid growth of population makes it difficult to meet the basic needs of human and deteriorates the quality of life of the people. So, it is necessary that all citizen need to be aware of the fast growing population. It is right time for us that we should understand the adverse effects of overpopulation on the quality of life. In this regard famous Economist Malthus stated that 'Population increases at a geometric rate, while food increases at an arithmetic rate.' Malthus is known as father of modern population study and his theory is really applicable in the developing country in the world.

12.3 VARIOUS METHODS OF TEACHING POPULATION EDUCATION

Population education is the new field of study. This new field implies a change in the attitude and behavior pattern of the individual. It enables us to make rational decisions regarding population education. There are various important methods for teaching population education. To overcome the problems related with population education, methods are necessary. At present, rapid growth of population creates many problems in the society. So we must be conscious about it. We should be well informed about the consequences of population growth. Here, we will discuss about the various methods of population education.

12.3.1 Observation Method

Observation method is one of the most common, popular and simplest methods of studying population education. It is a social science research technique which involves the direct observation of phenomena in their natural settings. It is the oldest method of study which mainly concerns with various social problems. In this method, the observer himself observes the problem situation for collecting data. There are so many issues related with population education, like small family norm, mother and child health, illiteracy, family planning etc. for which we can use observation method. The data

collected through this method is very accurate and reliable.

There are different types of observation- controlled observation, non-controlled observation, participant observation and non-participant observation. When observation takes place according to definite pre-arranged plan, involving experimental procedure, the same is then termed controlled observation. On the other hand, non-controlled observation takes place in natural settings and this type of observation helps to get a spontaneous picture of life and persons. In participant observation, the observer becomes more or less one of the groups under observation. The observer will be in sight of the person being observed and may actually take part in some activity with the observed individual or groups. In non-participant observation, the observer takes a position where his presence is not disturbing to the group.

Merits of observation method:

1. Observation method makes the teaching learning process easy and purposeful.
2. It develops social qualities such as cooperation, team spirit, sympathy etc. among the students.
3. This method can remove dullness, monotony of class room teaching.
4. This method leaves permanent impression of the objects in the minds of the students.
5. Through this method students can fulfill their curiosity and observe realities by themselves.

Demerits of observation method:

1. Observation method is time consuming and expensive.
2. This method is not suitable for lower classes.
3. For the proper implementation of observation method, special trained teachers are necessary.
4. Sometimes parents feel hesitation to send their children for observation.

12.3.2 Self–Study Method

Self-study is a method of population education which studied by himself without any kind of help by teacher or trainer. In this method, students himself is responsible for his\her work. No one tell him\her or guide in this respect. So, this method is known as 'learning on your own'. It is most effective method because the students get freedom of learning which increase self confidence and responsibility. This method is basically taking information, processing it and retaining it. For the proper implementation of self study method, the guide or teacher himself has to demonstrate the skill of study before the students. He should guide them to collect necessary resources and facilities for carrying out the independent study.

Merits of self study method:

1. Self study method develops some personality traits of the students, such as –self reliance, self dependence, self confidence etc.
2. It develops the creativity in the students.
3. It makes the students systematic and organized.
4. It develops mental horizon and intellectual capacity of the students.
5. This method makes the students to utilize the leisure time fruitfully and increase their knowledge.
6. This method helps the students to study any subject of study.

Demerits of self study method:

1. There is no teacher or guide to correct the mistake of the students.
2. Self study method is not suitable for the lower classes.
3. This method needs very careful and proper planning.
4. In the absence of good environment and facilities, it is not possible to conduct the method.
5. If the students have no interest and attitudes towards self study, it is mere wastage of time and energy of the students.



ACTIVITY -1

Visit the households of your locality and collect data on percentage of literacy, health condition of mother and child of the area etc. and observe their standard of living. Prepare a report on it.



CHECK YOUR PROGRESS

Q 1: Write about observation method of teaching population education.

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Q 2: What is meant by self study method?

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12.3.3 Discussion Method

Teaching- learning process is a co-operative process between teachers and taught. In this method the students participate actively in the learning situation. Discussion method is an important method for discovering various problems of population education. It involves study and preparation, selection and organization of subject-matter, enhancing ideas and learning procedures. It is a systematic procedure of collective decision making. Discussion may be debate, symposium, a panel discussion and conference etc.

The factors of discussion- According to Johnson, discussion includes the following-

1. The leader
2. The group
3. The problem
4. The content

1. The leader: In discussion method, the teacher plays the role of leader. He does the planning of the discussion, selection and organization of subject matter. As a leader the teacher has to guide the discussion and observe that all the members of the group participate in discussion.
2. The group: The all members of the group may be encouraged by the leader to participate actively in the discussion.
3. The problem: The topic or the problem of discussion should be selected by the teacher as well as by the students. The topic must be based on real life situation.
4. The content: In this method, we have constantly to resort to facts and generalizations. Here different points of view are to be discussed, so that an agreement is reached.

Principles of discussion:

1. Principle of active participation
2. Principle of freedom for work
3. Principle of group and actual participation

Merits of discussion method:

i) Discussion provides equal opportunities to each and every members of the group to express their views on the topic of discussion. It helps to improve verbal expression.

ii) Discussion method is a process of collective decision making.

iii) The members of the group have arguments and develop their points of view logically, which develop their critical thinking and reasoning.

iv) Discussion develops the habit of tolerating others opinion, understand other points of view and forward own view in the group.

v) Discussion method develops better understanding of the various topics of discussion.

Demerits of discussion method:

i) This method does not give direct experiences to the members of the group.

ii) In this situation there is very little scope for reading and writing, which are essential for the students.

iii) The discussion method is very time consuming.

iv) All the members of the group do not participate equally in discussion. Some students do not have confidence and feel shy to express their feeling. So the bright students may dominate and do not give scope to others.

12.3.4 Lecture Method

Lecture method is another method of teaching population education. It implies teaching by means of the spoken form. In the higher stage of education teachers mainly use this method. The students should encourage asking question to solve their doubts. Teacher should use maps, charts, models, picture etc. in his lecture to motivate the students. Well prepared and well presented lecture is fruitful for the students.

In the lower classes, the lecture method can be presented through storytelling, conversation etc. A liberal and smooth atmosphere is created in the class room situation, where the students can freely ask questions to teacher and thus increase their knowledge.

In the higher level of education, this method assumes the form of a formal talk or lecture. Teacher should prepare the lecture on the selected topics to present in front of the students. The teacher should deliver his lecture with full confidence and he should give opportunity to his students for asking questions. He should observe the students in the class.

Merits of lecture method:

i) Lecture method is very effective method of population education, through which teacher can motivate students properly.

ii) Proper delivery of lecture method can clarify the doubts of the

students.

iii) This method can save time and energy of students as well as teacher. Through this method a teacher can present his topic properly and easily.

iv) Lecture method can be used for various purposes. The teacher presents the main points of the lesson through lecture method.

Demerits of lecture of method:

i) Students are passive learner in the lecture method and cannot properly participate in the learning situation.

ii) All teachers cannot properly deliver their lecture.

iii) Lecture method makes teaching –learning situation dull and monotonous.

iv) This method gives only theoretical knowledge.



ACTIVITY-2

Choose a topic on problems of population explosion and organize a debate competition among school students in your locality. Prepare a report of the activity.



CHECK YOUR PROGRESS

Q 3: Define discussion method.

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Q 4: Discuss about lecture method.

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12.3.5 Project Method

Teacher can very effectively use the project method to teach the concept of population education to the students. This method has evolved as a reaction against the theoretical, bookish and away

from life type of education. It emphasizes on activity and responsibility of the students. It involves the study of all the components of a given problem and thinking about their probable solutions. The problem selected for project must relate to the real life situation. Famous educationist Kilpatrick said- "A whole hearted purposeful activity, proceeding in social environment." There are some basic principles underlying the project method. They are as follows-

i) The principle of purpose
ii) The principle of activity
iii) The principle of reality
iv) The principle of experience
v) The principle of freedom
vi) The principle of utility

The students take interest only when there is a purpose of their work or learning, which involves activity, provides experience, which are related with their real lives, where they get freedom for doing their work, which have usefulness for them.

Steps of project method:

There are some steps for conducting project method. They are as follows-

i) Providing a situation: The teacher must create a situation, which helps students to think about a project.
ii) Selecting a project: The students select a project with the help of their guide or teacher. The project must be related with real life situation.
iii) Planning: In the next step the students should prepare a plan for execution of the project. The responsibility of the project should be divided according to the interest and capacity of the participants. Proper cooperation is necessary for implementation of the project.
iv) Executing the project: The project is completed by the students under the guidance of their teacher or supervisor. The students perform various activities while doing the project. They learn

by doing themselves. It is practical and useful for them.

v) Judging and evaluating: After the completion of the project the students sit together for the evaluation of the project.

vi) Recording: The students should keep the record of the execution of the project. They should maintain complete record of the project from the first step to the last step. This will be beneficial for the future.

Merits of project method:

i) Project method is based on three laws of learning, i.e. laws of exercise, laws of readiness and laws of effect, which were put forth by Thorndike.

ii) As the students do every step by themselves, so it develops self confidence in them.

iii) Project method develops sense cooperation among the students.

iv) They understand about the dignity of labour.

v) Students get practical knowledge from the project.

vi) This method helps the students for their future preparation. Project method develops many attitudes in the students, such as cooperation, organization, correct pronunciation, style of speaking, self –consciousness etc

Demerits of project method:

i) Project method is expensive. It requires a lot of material.

ii) Dominating students do not give chances to the other students. So, they cannot participate properly.

iii) Successful completion of a project requires specially trained teacher. Without the trained teacher the project cannot fulfill its aim.

iv) There is too much workload of teacher in project method, because the teacher is required to guide the students individually. He has to perform ultimate responsibility of the project.

v) No systematic knowledge is provided through project method.

Whole syllabus of a subject cannot be provided through this method.



CHECK YOUR PROGRESS

Q 5: Discuss the steps of project method.

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Q 6: What are the demerits of project method?

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12.3.6 Assignment

Generally, assignment means work that is allotted to the students in fixed time duration. Because, school time is insufficient to complete the whole prescribed syllabus in due time. So, the assignment is necessary. It encourages the child to use his \her own resources.

Types of assignment:

1. Essays: Essays are used to measure student's comprehension over a specific area or topic and their ability to explain the matter.
2. Writing: This type of assignment measures student's innovation capacity.
3. Oral presentation: Oral presentation is used to assess skills, understanding and ability to organize material.
4. Projects: Projects measure student's creativity and innovation.
5. Group discussion: Through group discussion teacher can measure student's communication and co-operative skills, quality of leadership.

Merits of assignment:

1. Assignment can create interest and attention of the students

and motivate them to study.

2. It develops self study habits among the students.
3. It can create link between teachers and parents.
4. It helps students in achieving their goal.
5. It develops self confidence and self dependence of the students.
6. Assignment develops reading habits of the students.

Demerits of assignment:

1. Assignment is dull and monotonous method of learning.
2. Too much home assignment make children bore.
3. Some teachers do not check the home assignment.
4. In assignment method there is no provision for direct experience.

12.3.7 Field Study

Field study is the most effective method of giving direct experience of things. Through this method the students can correlate between theoretical knowledge and practical knowledge. They can collect first hand data properly about a thing. They can find out the difference between bookish knowledge and real life situation. For the field study must be properly planned. The leader should guide all the members. After visiting the trip the students are able to know about the various consequences of population growth in the society. Visual experience gives them real picture of the population problem. After the field study, the student must review it, describing the experience in detail also helpful.



ACTIVITY-3

Organise a field study on an over-populated area of your locality to know the consequences of rapid growth of population in the area and prepare a report on it.



12.4 LET US SUM UP

- The increasing number of population enhances poverty and pollution to a greater extent in everywhere in the present world. The rapid growth of population makes it difficult to meet the basic needs of human and deteriorates the quality of life of the people.
- There are various methods of studying population education, they are-observation, self study, discussion, lecture, project method, assignment, field study etc.
- Observation method is one of the most common, popular and simplest methods of studying population education. It is a social science research technique which involves the direct observation of phenomena in their natural setting.
- Self-study is a method of population education which studied by himself without any kind of help by teacher or trainer. In this method, students himself is responsible for his\her work
- Discussion method is a important method for discovering various problems of population education. It involves study and preparation, selection and organization of subject matter, enhancing ideas and learning procedures. .
- Lecture method implies teaching by means of the spoken form. In the higher stage of education teachers mainly use this method. The students should encourage asking question to solve their doubts.
- Project method has evolved as a reaction against the theoretical, bookish and away from life type of education. It emphasizes on activity and responsibility of the students.
- Assignment means work that is allotted to the students in fixed time duration. Because, school time is insufficient to complete the whole prescribed syllabus in due time. So, the assignment is necessary. It encourages the child to use his \her own resources

- Through field study method the students can correlate between theoretical knowledge and practical knowledge. They can collect first hand data properly about a thing.



12.5 FURTHER READING

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12.6 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Observation method is one of the most common, popular and simplest methods of studying population education. It is a social science research technique which involves the direct observation of phenomena in their natural settings. It is the oldest method of study which mainly concerns with various social problems. In this method, the observer himself observes the problem situation for collecting data.

Ans. to Q. No. 2: Self-study is a method of studying population education which studied by himself without any kind of help by teacher or trainer. In this method, students himself is responsible for his\her work. No one tell him\her or guide in this respect. So, this method is known as 'learning on your own'.

Ans. to Q. No. 3: Discussion method is an important method for discovering

various problems of population education. It involves study and preparation, selection and organization of subject-matter, enhancing ideas and learning procedures.

Ans. to Q. No. 4: Lecture method is another method of teaching population education. It implies teaching by means of the spoken form. In the higher stage of education teachers mainly use this method. The students should encourage asking question to solve their doubts. Teacher should use maps, charts, models, picture etc. in his lecture to motivate the students. Well prepared and ell presented lecture is fruitful for the students.

Ans. to Q. No. 5: There are some steps for conducting project method. They are as follows-

i) Providing a situation: The teacher must create a situation, which helps students to think about a project.

ii) Selecting a project: The students select a project with the help of their guide or teacher. The project must be related with real life situation.

iii) Planning: In the next step the students should prepare a plan for execution of the project. The responsibility of the project should be divided according to the interest and capacity of the participants. Proper cooperation is necessary for implementation of the project.

iv) Executing the project: The project is completed by the students under the guidance of their teacher or supervisor. The students perform various activities while doing the project. They learn by doing themselves. It is practical and useful for them.

v) Judging and evaluating: After the completion of the project the students sit together for the evaluation of the project.

Recording: The students should keep the record of the execution of the project. They should maintain complete record of the project from the first step to the last step. This will be beneficial for the future.

Ans. to Q. No. 6: Demerits of project method are as follows-

1. Project method is expensive. It requires a lot of material.

2. Dominating students do not give chances to the other students. So, they cannot participate properly.
3. Successful completion of a project requires specially trained teacher. Without the trained teacher the project cannot fulfill its aim.
4. There is too much workload of teacher in project method, because the teacher is required to guide the students individually. He has to perform ultimate responsibility of the project.
5. No systematic knowledge is provided through project method. Whole syllabus of a subject cannot be provided through this method.



12.7 POSSIBLE QUESTIONS

A. Short Questions (Answer each question in about 150 words)

Q 1: Write briefly about discussion method.

Q 2: Mention the types of assignment method.

Q 3: What is observation method?

Q 4: Define self study method.

B. Long Questions (Answer each question in about 300-500)

Q 1: What is project method? Discuss the merits and demerits of project method.

Q 2: Explain the merits and demerits of lecture method.

Q 3: Discuss the factors of discussion method.

Q 4: Write briefly about field study.

Q 5: Explain the advantages and disadvantages of observation.

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UNIT 13 : POPULATION AND QUALITY OF LIFE

UNIT STRUCTURE

13.1 Learning Objectives

13.2 Introduction

13.3 Meaning of Quality of Life

13.4 Population Related to Quality of Life

- 13.4.1 Small Family Norms
- 13.4.2 Family Planning

13.5 Let Us Sum Up

13.6 Further Reading

13.7 Answer To Check Your Progress

13.8 Possible Questions

13.1 LEARNING OBJECTIVES

After going through this unit you will be able to-

- explore the meaning of quality of life
- understand the meaning, nature, benefits and barriers of small family norms
- develop understanding about the concept and programmes of family planning
- explore the reasons for slow progress of family planning programme in India.

13.2 INTRODUCTION

Growth of population of a country naturally affects the living standards or quality of life of the people of that country. It covers all the major aspects of development. Broadly speaking, these aspects can be divided into two parts such as human and science-technology based. The components of the human aspect are economic, social, cultural, political, educational, moral and aesthetic etc. The components of science and technology are the strategies of utilizing the resources of nature through which the

developmental needs of human beings can be adequately met. These include new innovative knowledge of science and technology, experiences, industrialization, modernization, development of communication systems, etc., through which the process of globalization can be accelerated. In this unit, we shall discuss the meaning of quality of life as well as the meaning, nature, benefits and barriers of small family norms. Again concept and programmes of family planning and the reasons for slow progress of family planning programme in India will also be discussed.

13.3 MEANING OF QUALITY OF LIFE

'Quality of life' is a complex and wide-ranging concept, the simple meaning of which cannot be given in one sense. The Dictionary meaning of the word 'quality' is the degree of excellence of an object or subject. It is also defined to mean the excellent, beautiful and valuable state of a subject. Quality of life refers to a way of life of a person which is excellent, beautiful and valuable from personal and social point of view. Living such a quality life can meet the physical, mental, emotional, social and economic needs of the individual and the society in a reasonable and hopeful way. This is a very important point to consider when it comes to quality of life.

The concept of quality of life is interpreted, analyzed and determined differently from the point of view of population education. It can be grasped as follows:

(i) Quality is determined by considering the **physical needs** of a person. Considerable components of physical needs are food, clothing, shelter, air, water, etc. The quality of life of people becomes improved, better and more promising if these physical elements can adequately meet the human needs.

(ii) The quality of life is determined by meeting the **social and cultural needs** of the people. The factors to consider in this connection are education, employment, healthcare, leisure, emotional security, creativity, etc. If these social and cultural needs are adequately met, the quality of life of the individual can be improved and enhanced.

(iii) Meeting **economic needs** is another aspect that can be considered

to improve the quality of human life. From this point of view, it is said that improvement of the quality of life depends on increasing the per capita income in the economy of the country. Personally, high quality economic earnings are indicative of improved quality of life. In addition, the size of the population, food, production, health care, housing, education, etc. improve the quality of life of the people economically.

World Health Organisation (WHO) defined quality of life as "individual's perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of dependence, social relationships, personal beliefs and their relationship". Some of the important characteristics of quality of life are stated below:

- The quality of life is a wide range of emotional and complex humanistic concepts.
- It is a process of human life, which is considered to be excellent, beautiful and valuable.
- It should be able to meet the physical, emotional, social and moral needs of human beings.
- Improved quality of life can increase the per capita income by meeting the economic needs of the individual.

13.4 POPULATION RELATED TO QUALITY OF LIFE

Quality of life of human being is related to different favourable and unfavourable concepts of population such as education, environmental degradation, public health, employment, pollution, small family norms, family planning etc. All these concepts are very important to explain quality of life in relation to population. Here, we shall discuss the important concepts like small family norms and family planning.

13.4.1 Small Family Norms

A small family is the need of the hour, especially in India

where population explosion is a major problem. Unless the population growth in the country is checked with all the people adopting the small family norm, the quality of life in our country will continue to be far below the world standards. While availability of food, health services and educational facilities in the developed countries are improving, these are continuously on the decline or are stagnant in our country because of the growing population. With too many people chasing after few services or products in the country, the quality of life is affected considerably in our country. Industrialization has resulted in tremendous changes in the life-style of the people in the developed countries. Though a small percentage of the people in our country have a life-style that matches the western standards, a majority of the population are still below the poverty line because of unemployment and underemployment resulting from population explosion. If the living standards of the majority of Indians are to improve, everyone should adopt the small family norm.

Meaning of Small Family Norms

The small family norm connotes control over the number of children. The rate of reproduction and the level of acceptance of family control methods are to a large extent influenced by what people consider as the ideal family size. Adoption of small **family** norms is today not only desirable but almost a necessity. It has become difficult to survive with a large family particularly because of price hike, growing needs and necessities. It is true that a small family is a happy Family. The lesser number of children is a boon not only to their parents but also to the country itself. They have better chances of food, clothing and education. Too many children are a burden to the society or family. Over-population is a curse

All the plans of progress and development stand nullified when the family is in trouble; happiness vanishes. One son and one daughter are ideal. Too many sons and daughters cause misery and unhappiness. They invite unnecessary trouble. Unlimited children cause problems.

India is the first country in 1952 to implement established population policies, in a series of Five Year Plans starting from 1951. In the First Five Year plan, from 1951 to 1956, it has been recognized by the Planning Commission that a population policy is necessary and family planning is identified as an important component of the legislation, hence family planning received 100% funding from the central government. In the next five years, from 1956 to 1961, the method of sterilization is emphasized, and by the next 5 years, family planning programs are placed as national priority.

In 1966, the Ministry of Health and Family Welfare is set up to manage the new population policy, called Small Family Norm that encourages families to only have two children. The symbol for family planning health and contraception services is an inverted red triangle. A small family not only alleviates the overpopulation problem in the national level but also benefits the welfare and health of individual families. Although India has a booming economic growth rate, there are not enough resources to withstand effective improvement in the large majority of the poor and sustain the flourishing economic growth rate. Therefore, to bring about qualitative changes, it is an urgent need for the Indian government to curb the problem of overpopulation and opt for a slower population growth. However, this birth rate control is not as effective as there are disincentives amongst masses,hence due to various factors such as religion, culture and social-economic, this is not widespread, especially in rural areas and urban slums.

Nature of Small Family Norms

Main motto behind small family norms is to control the population of the particular country. Every society should develop definite behavioural patterns to ensure a certain norm of family size. These behavioural patterns are mainly based on marriage, age of marriage, preferences for sex, values and roles of children etc. which automatically result in ensuring the normatively desired family size. The two extremes of the family size norm could extend from ‘no

child family' to 'as many children as God may will'. Within these two extremes, the norm varies from society to society, depending upon its socio-economic and health condition,particularly mortality status. One could expect change in family size norm corresponding to changes in socio-economic status of any given society. However, this change is not simultaneous because the normative values and behaviour patterns change at a slower pace as compared to economic progress. This cultural lag usually results in increased unhappiness in the individual families and society. It is one of the main goals of the national family planning programmes of every country to bridge this gap and enable individual families to adjust to changing situations so that they can maximise the gains accruing to them as a result of overall socio-economic progress.



CHECK YOUR PROGRESS

Q 1: What is small family norm?

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Q 2: Write a note on family planning of India.

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Q 3: What is the main motto of small family norm?

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Advantages of Small Family Norms in Population Control

A small planned family has many advantages and benefits. The planning for a family starts from marriage at proper age. The safest time for pregnancy for health of both the mother and child is when she is 20 to 30 years. The reasonable gap between two children will give mother sufficient time to replenish her body nutrients depleted during the earlier pregnancy. Here, we now discuss the advantages of small family norms in population control.

1) Advantages for Mother

- Small family norms help to maintain the health of the mother.
- It also helps to minimise the fear of unwanted pregnancy.
- Small family norms minimise the number of children and it helps to less strain and worry due to less children.
- It helps the mother to spare more time and energy for children.
- It also helps the mother to spend more time for /education and vocation of their children.
- Small family norms provide better job opportunities to the mother as they are free from family problems related to a large number of children.
- Small family norms help the mothers to nourish the health of children attentively.

2) Advantages to Child:

- Child will have conducive atmosphere for his proper physical and psychological growth and development.
- Child gets proper nutrition, education, prenatal care and love.

3) Advantages to Father:

- Father can provide children with better education, comfort, food, clothing and recreation.
- He will be more relaxed and enjoy good health.
- He will improve living standards, better health and better quality of life.

4) Advantages for Community:

- Small family leads to conservation of natural resources and savings.
- Small family norm helps the nation to have enough schools, hospitals and other basic services.
- Small family yields more employment.
- Small family norms provide happiness, peace, harmony and prosperity among the people of a nation.

Barriers of Small Family Norms

Different barriers of small family norms are discussed below:

1) Religious Barriers

- **Preference to male child:** In Indian society, desire for or preference to a son is deeply rooted. The deep rooted religious and cultural values help in promoting the preference to have a male child as he is believed to be the medium to get salvation of the soul after death.If a male child doesnot perform the last rites of a person,it is believed ,the person's soul is to be doomed in hell.
- The son is also old age insurance to the parents.
- **God Given Children:** There is a religious belief among some sections of the society that it is the will of God that has bestowed children to them.

2) Demographic Barriers:

- **Early Marriage:** Early marriage is still prevalent in our society. Child marriage contributes to every social problem that gives India a low ranking in women's right.
- **Lack of Adequate Knowledge of Family Planning Methods:** Contraceptive use is very low among married couples in India. Main reason behind this is lack of proper knowledge about family planning methods.
- **Large Family system:** For a long time, large family system provided facilities for the care and bringing up of children. Couples saw safety in large families. This also hampers the norm of small family.

3) Economic Barriers:

- **Low Standard of Living:** This is another barrier of small family norms. Low standard of living encourages particular section of people to indulge in sex play as entertainment.
- **Backward Agricultural Economy:** In India the traditional method of agriculture has been practising since

decades.Therefore a large number of children is considered as an advantage as they offer help in various activities.Even if a few of them did not survive beyond ten to fifteen years, certain functions of economic nature like tending cattle or carrying out simple tasks in the fields could be fulfilled by the younger ones.

4) Educational Barriers:

- **Illiteracy of Masses:** Lack of mass literacy has been undoubtedly an important factor in having large families. Without adequate literacy and education, people remain unacquainted with the benefits of increased knowledge. They believe in superstitions and sometimes think that large families are the gift of God. They become fatalists.
- **Neglect of Girls' Education:** Lack of girls' education create different problems while adopting small family norms. As the women counterparts have no knowledge about family planning due to lack of education, they can not fulfil the dream of small family norms.

5) Recreational Barriers:

- **Lack of Means of Entertainment:** A substantial section of people for years have remained withoult adequate recreational facilities. This factor became responsible for them indulging in sexual activity and desiring pleasure from it.
- **More Leisure Time:** Main occupation of nearly 70% of Indian population is subsistence agriculture. Agriculture is unable to provide employment throughout the year. Thus there is lot of leisure time at their disposal. The easiest time pass for them has been to occupy themselves in sexual activities, resulting in large families.

In order to remove barriers of small family norms, Government should take certain measures such as:

- Provide adequate recreational facilities to the masses which

will be effective for economic growth of the family and maintaining the norm of small family.

- Proper functional education regarding small family norms should be provided to poor and illiterate people of our country.
- Voluntary maternity of women should have a proper place of information in the health centres.
- Family planning programme should be made as a people's programme. It allows the couples to decide their family size and also the time spacing of their offspring.
- Role of voluntarily organisations is very important in this regard. Different Government and Non-Government Voluntary Organisations can play effective and operational role in controlling the population of our country.
- Modernised improved methods should be introduced in the agricultural operations throughout the country for raising its productivity. This can also raise the standard of living of the people and indirectly reduce the birth rate.
- Mass-media, song, drama and extension education are some methods through which the people can be approached and educated for family planning programme.
- Opening family planning centres throughout the country can play an effective role in limiting the size of the family.
- The Government should introduce various incentive schemes for adopting small family norms such as cash incentive, preference for employment, preference for insurance, promotion etc.

It is said that family size influences the overall family welfare and happiness of a country. Its influence on the well being of children is particularly marked. To plan for a small family with one or two children is to plan for a happy family.



CHECK YOUR PROGRESS

Q 4: Write the benefits of small family norms for the father of the family.

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Q 5: Write about recreational barriers of small family norms.

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13.4.2 Family Planning

The growing population of the country and society cannot be stopped. We don't even want to try to do that. Of course it can be reduced or controlled as people want or as expected. One of the natural and straightforward efforts for this is population education. One effective way of this education is to control the number of families. In order to carry out such controls properly, it is necessary to plan its actions in a planned or authoritative manner. Family planning is very important to reduce the ever increasing population growth.There is no other alternative acceptable system of human population control in the hands of modern man.

Concept of Family Planning

As the current population growth has been creating an explosive situation, it comes to our mind naturally to control it with the help of family planning. It is said that the process of giving birth to a child by a newly-married couple should be planned with respect and dignity of fatherhood and motherhood. It should not be stupid and irrational. Or it may not turn out to be an unexpected accident for them. We want such an arrangement to make the married life beautiful and happy and to make it a long lasting marriage. Only a well-planned family or a visionary marital life can make them aware of and seek out the unseen problems of their future. They have to create and plan their own future. This is the basic concept of family

planning and its underlying expectations.

Of course, it is important to note that the success of this scheme depends on the mutual understanding and consensus between the husband and wife during the marital period. The two of them need to develop some new feelings and perceptions between them. It is important to keep in mind the feelings and attitudes of the couple when it comes to building a happy married life or a happy family. This is the main consideration of the Family Planning Scheme, which can have far reaching implications for its social success.

According to World Health Organisation, family planning is a "way of thinking and living that is adopted voluntarily, upon the basis of knowledge and attitudes and responsible decisions, by individual and couples in order to promote the health and welfare of the family group and thus contribute effectively to social development of a country".

According to Calister, "Family Planning is the intricate process by which persons, if they wish, can determine for themselves the timing, spacing and number of children to be born for them."

Based on the above, the main features of family planning can be identified as given below:

- Family planning is a need based thinking and life process for today's people.
- It is a responsible decision made by the married couple voluntarily.
- This is the only way to improve the health and well-being of a family.
- In adopting this plan, there is a mutual understanding between husband and wife, will power, uniqueness of decision making etc. This is not a forced plan for anyone.
- Family planning can contribute to the overall development of the country and society.
- It can improve the quality of family life and, on the other hand, the economic condition of social life.

- Family planning is a plan to make the fullest utilisation of the human resources of the country.
- This scheme is also referred to as Family Welfare Program in view of the possible health effects of the current termination.

Program of Activities of Family Planning in India

The Government of India constitutes the Planning Commission in March 1950. On 1 April 1951, the Commission constituted a Sub-Committee. Through this sub-committee, the Commission advises the Central Government to implement the Family Planning Scheme across the country. Family Planning and Family Welfare Scheme is directed by a Commissioner under the Ministry of Health and Family Welfare. The Central Family Planning Board is also under the purview of the Union Ministerial Office. In addition, state-based family planning agencies provide assistance. Therefore, the organizational and administrative system of family planning has been developed from the Union Minister's Office to the district level of the State.

The next five-year plans focus on the family-planning schemes with a view to the socio-economic development of the country. The Ministry of Health and Family Welfare of the Union Government provides 90% financial assistance to the State Governments in this regard.

The following steps are taken by the Ministry of Family Welfare for the implementation of the scheme.

- ***Accepting Small Family norm:*** The principle of 'Accepting Small Family Happy Family' is popularized among the general public by this scheme. Under this scheme, human beings are encouraged to adopt the ideals of two children.
- ***Spaced method:*** Giving birth to one child after another at the beginning of the year creates a frightening situation for the family. One of the salient features of family planning is that there is a considerable time gap between the birth of the first and the second child. This is the essence of family planning

and its implications.

- ***Supply of contraceptives:*** Women and men who are capable of giving birth to children need to be made to have easy access to contraceptive devices for self control. The departmental authorities are keeping a close eye on this matter. The Family Planning Scheme of the country pays special attention to make contraceptive kits easily available to these able-bodied people.
- ***Clinical services:*** The family planning scheme provides clinical and surgical medical services to the people, especially mothers and children. Primary health centres are set up on a need basis and the services of the Family Welfare Scheme are extended to the public.
- ***Community education:*** Family education or family welfare scheme cannot be expected to be successful without education of the community people living in different backward areas of the country. The government authorities have adopted a number of new programmes, policies and procedures under the scheme.
- ***Training of the medical personnel:*** The success of the Family Welfare Scheme depends to a large extent on the trained personnel required at different stages of the medical sciences. These staffs are medical staffs, physicians, midwives and other related medical staff. The Medical Council of India also approves a separate short-term medical training course for these people. At the state level also training of medical personnel is provided.

Reasons for Slow Progress or Failure of Family Planning Programme in India

The family planning programmes of our country failed to achieve its expected goals. In some states of South India like Kerala, Tamil Nadu, Karnataka, Goa and Maharashtra, its progress and results have been satisfactory. However, in the northern states of India, such as the United Provinces, Bihar, Madhya Pradesh,

Rajasthan, Haryana and Assam, its progress has been disappointing.

Some of the reasons for slow progress or failure of Family Planning Programme in India are stated below:

- **Male dominated social set up:** Due to male dominance in Indian social life, women are not able to express their views, desires and interests. The question of male-female consent or disagreement has been made irrelevant in our family life when it comes to birth control.
- **High rate of illiteracy among women:** Illiteracy among the general population in India and its high prevalence among women are the major Obstacles to Family Planning.
- **Need of a male child:** Need of a male child and need of security of future life is another reason in this regard. The married couple do not want to think of contraception or sterilization in the family planning system without the arrival of a male child.
- **Child as the earning member:** The poorest and most economically disadvantaged people in India cannot think of their child's education. They want their children to be the breadwinners of the family from an early age. Giving birth to more sons become a way for the family to earn more money.
- **Absence of sex-education:** Teaching family planning without providing basic concepts of sex-education is also considered as a ridiculous thing.
- **Lack of dedicated workers:** Employees working in the Family planning department need to be people who are motivated by ethical ideals and have a self-employed attitude towards the society. The concerned authorities should motivate and encourage their loyal staff by giving recognition and rewards. However, due to the lack of such a system, family planning workers cannot be motivated by their attitude towards government service alone. As a result, the whole process has become a mechanical one.

- **Political complexity:** India's population control policy and family planning system are embedded in political complexity. Vote bank politics does not want to follow the principles of population control. That is why the people's representatives are not interested and enthusiastic about the population control policy.

Hence, it is important to solve the problems of family planning programme of our country. In this connection, following points are worth mentioning:

- Universal primary education.
- Women's economic self dependence.
- Establishment of community development centre.
- Development of cottage industry.
- Old age pension.
- Motivated sterilisation.
- Imparting sex education.
- Provision of healthy entertainment of leisure.
- Encouraging the Non-Governmental organisation.



CHECK YOUR PROGRESS

Q 6: Define family Planning.

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13.5 LET US SUM UP

In this unit we have discussed the following matters:

- Quality of life refers to a way of life of a person which is excellent, beautiful and valuable from personal and social point of view. Living such a quality life can meet the physical, mental, emotional, social

and economic needs of the individual and the society in a reasonable and hopeful way.

- Unless the population growth lin the country is checked , the quality of life in our country will continue to be far below the world standards.
- A small family not only alleviates the overpopulation problem in the national level but also benefits the welfare and health of individual families.
- The two extremes of the family size norm could extend from 'no child family' to 'as many children as God may will'. Within these two extremes, the norm varies from society to society, depending upon its socio-economic and health, particularly mortality status.
- A small planned family has many advantages and benefits. The planning for a family starts from marriage at proper age. The safest time for pregnancy for health of both the mother and child is when she is 20 to 30 years. The reasonable gap between two children will give mother sufficient time to replenish her body nutrients depleted during earlier pregnancy.
- Main barriers of small family norms are: preference to a son, god given children, early marriage, lack of adequate knowledge of family planning methods, large family system, low standard of living, backward agricultural economy, illiteracy of masses, neglect of girls' education, lack of means of entertainment, more leisure time, etc.
- Family planning is a need based thinking and life process for today's people. It is a responsible decision made by the married couple voluntarily.
- The following steps are taken by the Ministry of Family Welfare for the implementation of the scheme. These are: accepting small family norm, spaced method, supply of contraceptives, clinical services, community education, training of the medical personnel, etc.



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13.7 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: The small family norm connotes control over the number of children. The rate of reproduction and the level of acceptance of family control methods are to a large extent influenced by what people consider as the ideal family size.

Ans. to Q. No. 2: India is the first country in 1952 to implement established population policies, in a series of Five Year Plans starting from 1951. In the First Five Year plan, from 1951 to 1956, it has been recognized

by the Planning Commission that a population policy is necessary and family planning is identified as an important component of the legislation, hence family planning received 100% funding from the central government. In the next five years, from 1956 to 1961, the method of sterilization is emphasized, and by the next 5 years, family planning programs are placed as national priority. In 1966, the Ministry of Health and Family Welfare is set up to manage the new population policy, called Small Family Norm that encourages families to only have two children.

Ans. to Q. No. 3: Main motto behind small family norms is to control the population of the particular country.

Ans. to Q. No. 4: The benefits of small family norms for the father of the family are:

- Father can provide children with better education, comfort, food, clothing and recreation.
- He will be more relaxed and enjoy good health.
- He will improve living standards, better health and better quality of life.

Ans. to Q. No. 5: Different recreational barriers of small family norms are:

- **Lack of Means of Entertainment:** A substantial section of people for years have remained without adequate recreational facilities. This factor became responsible for them indulging in sexual activity and desiring pleasure from it.
- **More Leisure Time:** Main occupation of nearly 70% of Indian population is subsistence agriculture. Agriculture is unable to provide employment throughout the year. Thus there is lot of leisure time at their disposal. The easiest time pass for them has ban to occupy themselves in sexual activities, resulting in large families.

Ans. to Q. No. 6: According to Calister, “Family Planning is the intricate process by which persons, if they wish, can determine for themselves the timing, spacing and number of children to be born for them.”



13.8 POSSIBLE QUESTIONS

A. Very Short Questions

Q 1: What is meant by quality of life?

Q 2: What is meant by small family norm?

Q 3: Mention one advantage of small family norm for society.

Q 4: Mention one demographic barrier of small family norm.

Q 5: What is meant by family planning?

B. Short Questions (Answer each question in about 150 words)

Q 1: Mention the characteristics of quality of life.

Q 2: Write a note on nature of small family norms.

Q 3: What are educational barriers of small family norms?

Q 4: What measure should government take to overcome the barriers of small family norms?

Q 5: Write a note on the Family planning programme of India.

C. Long Questions (Answer each question in about 300-500 words)

Q 1: According to you, why India is failing tofulfill the dream of small family norms till now?

Q 2: Discuss the advantages of small family norms.

Q 3: Write an essay on small family norms from Indian perspective.

Q 4: Discuss the reasons for slow progress or failure of Family planning programme in India.

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UNIT 14 : ROLE OF MASS-MEDIA IN POPULATION CONTROL

UNIT STRUCTURE

14.1 Learning Objectives

14.2 Introduction

14.3 Population Control

- 14.3.1 Significance of Population Control
- 14.3.2 Means of Population Control

14.4 Concept of Mass-Media

14.5 Significance of Mass-Media for Population Control

14.6 Role of Mass-media in Population Control

- 14.6.1 Newspaper
- 14.6.2 Radio
- 14.6.3 Television
- 14.6.4 Other Audio-visual Aids

14.7 Let Us Sum Up

14.8 Further Reading

14.9 Answer To Check your progress

14.10 Possible Questions

14.1 LEARNING OBJECTIVES

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

- recognise the significance of population control;
- enlist various means of population control and ways to propagate them;
- describe the concept of mass-media;
- explain the significance of mass-media for population control;
- analyze the role of newspaper, radio, television in population control; and
- discuss the role played by other audio-visual aids in population control.

14.2 INTRODUCTION

You already know that population is a pivotal element in society. It serves as the point of reference from which all other elements are observed and from which they derive significance and meaning. Their numbers, distribution, growth and characteristics or qualities provide the basic background for understanding various aspects of the environment, particularly the resources available. Therefore, the size of the population is a concern for the social development and thus for national development. The ratio of population size and the resources available indicates many socio-economic parameters of development like poverty, hunger, environment, literacy rate etc. Until and unless the resources available are sustainably adequate for the population, the need to control population does not arise. But when the population size is not according to the resources available or to sustain resources for future generation, the need to control population arises. Of the various agencies which help in population control, mass media is one of the most influential agencies. In this unit, we will discuss the significance and means of population control and the role played by various mass-media like TV, radio, newspaper and other audio-visual aids in population control.

14.3 POPULATION CONTROL

It is known to you that the term **'**population' refers to a group of all the living organisms of a particular species, in a particular geographical area, at a specific time with the capability of interbreeding. Though 'population' may be of any organism, here we are concerned with the human population. The concept 'population control' refers to the methodology or the practices used to artificially control and maintain the type, location, size and rate of growth of the population. Population control involves measures that improve people's lives by giving them greater control of their reproduction. Historically, human population control has been implemented by limiting the population's birth rate, usually by government mandate.

14.3.1 Significance of Population Control

You can surely relate how uncontrolled growth of population helps increasing levels of hunger, poverty, illiteracy, environmental concerns and other such issues. At governmental level, various policies have been formulated for population control. In 1952, the government of India started Family planning programme to control the rate of growth of population. National Population Policy had been formulated in 2000. One of the immediate objectives of the National Population Policy, 2000 is to address the needs for contraception, health care infrastructure, and personnel and provide integrated service delivery for basic reproductive and child health care. If we observe carefully, we can find various instances where population control has been related to sustainable development. Look at the disparity in birth rates between the less developed northern states of India and more developed southern regions like Kerala, where women are more likely to be literate and educated, and their children are more likely to be healthy. It is important to make people realize that with less number of children also, they can expect to see their children survive into adulthood. So, we can understand how much important it is to control population. Actually, population control is a response to various problems like lack of resources, ensuring sustainability of the environment, unemployment, poverty, hunger, etc.

14.3.2 Means of Population Control

Population can be controlled by using various means and practices. Some measures are taken at individual level while others at state level. Individual efforts in this regard can play effective role at micro level such as family and local community level. At national level, realization of such objective is possible only with effective state intervention aimed at controlling the population change in the desired direction. The govt. can effectively intervene in bringing changes in

the population situation both at macro and micro levels. It can determine the necessity in the given context, and direct the policy changes accordingly. However, the constitutional and public mandates at national and state levels are to be taken care of.

Some of the means of population control are—using contraception, abstinence, abortion, emigration, decreasing immigration, starvation, famine, epidemic, war, etc. While a specific population control practice may be legal in one country, it may be illegal or restricted in another. This is a very sensitive and controversial issue. The population policy of a nation cannot confine itself to the reduction of birth rate alone. Rather a holistic approach is to be adopted for overall improvement of the society, economy and demography of a nation. The adoption of means of population control by the people is strongly influenced by various agencies like religion, culture, education, media, etc.



CHECK YOUR PROGRESS

Q 1: What is meant by population control?

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Q 2: State a few means of population control.

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14.4 CONCEPT OF MASS-MEDIA

Now let us look at the concept of mass-media before going into its role in population control. Mass media is the means used to communicate to the mass population. The source from which a 'mass' population or a large population of the general public gets their news and information is considered as mass media. It is the primary means of communication used to reach a large chunk of the general public at a time. Mass media refers to the technology that is used to communicate to a large group, or groups of people in a short time frame. A mass media may be defined as any means,

agency, or instrument through which ideas, attitudes, impressions or images are simultaneously communicated to a large number of people. The general public typically relies on the mass-media to get information regarding political issues, social issues, entertainment, and news. Some of the most popular forms of mass media are newspapers, magazines, radio, television, social media, internet, and films/movies. Mass-media have proved to help in classifying concepts, stimulating group and individual activities, developing a collective awareness, changing attitudes, imposing a new structure or organization on certain subjects and encouraging originality and creativity. It is known as 'message multipliers'.

Main functions of mass-media are mentioned below—

- To influence and generate public opinions: Different mass media can influence the mind-set and emotions of the people and change their opinions about different aspects of life.
- To disseminate vital information to a large section of people.
- To provide entertainment in appropriate form.
- To act as an agency for advertisement.

14.5 SIGNIFICANCE OF MASS-MEDIA FOR POPULATION CONTROL

If we want to make population control a mass campaign, mass-media is the only answer. Because, mass-media is capable of reaching the mass (a large population) within a less time. It takes a wide coverage of information regarding anything that is happening in anywhere in the world. It brings information of the whole world to the individual. These medias easily reach large group of people, reach remote places, give more reality, show cause-and-effect relationships and ultimately motivate the people and influence their attitudes. Mass media acts as an agency of social change and helps in modification of attitudes, inculcation of desirable values and acquaintance with cultural heritage. They simplify explanation and give clarity to it. They make the information concrete and stimulate interest and excite curiosity in things. They play a vital role in disseminating knowledge and bringing changes in attitudes regarding population issues. The contents of

population education include various facts and figures regarding population, health, environment, education, food and nutrition, welfare schemes, resources, economic development etc. All these information need to be communicated to the people, which can be done through mass-media. Importance of mass-media in population control can be summarized in the following points—

- The most significant advantage of mass-media is that it has the least boundary. It can reach people outside classroom or institutional environment, even to remote places.
- Mass-media offers the advantage of non-necessity of proximity of the sender and receiver, i.e. they do not require being at the same place at the same time. Moreover, through mass-media, information can be passed on at a real-time basis.
- Mass-media can present events that have already taken place in the past as well as the events which can be predicted that will take place in future. So, past events or consequences as well as future predictions of uncontrolled population growth can be communicated using mass-media.
- Mass-media helps to retain the learning for longer time. Using audio-visual aids as mass-media can have impact on long-term population control strategies.
- Mass-media helps in forming clear images in the mind of the people. Abstract ideas can be presented concretely. Concrete experiences make learning more natural and realistic.
- Mass-media provides variety of experiences. There are many sources to get the experiences in different ways. Variety of experiences helps in understanding the concepts which are sensitive in nature.
- It is difficult to motivate people for population control as religious and cultural sentiments are sometimes related to it. Mass-media acts as a good motivator in such cases.



CHECK YOUR PROGRESS

Q 3: Define the concept of mass-media.

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Q 4: Why mass-media is called a good motivator?

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14.6 ROLE OF MASS-MEDIA IN POPULATION CONTROL

You have learnt in the previous section that mass-media is a very effective medium of population control. Mass-media helps to disseminate news related to population and health. This has helped in reducing the world's population considerably. They facilitate short term, intermediate and long term objectives of stabilizing population. Short term objectives include giving people knowledge about the concepts related to population and health, creating awareness, keeping people updated and enhancing public service announcements. Intermediate term objectives include bringing changes in attitude, behaviour and perception of social norms. Long term objective is to focus on restructuring of perceived social norms. In a country like India where the population is vast and diverse, Mass Media plays a more significant role in creating social awareness, for intensifying family planning activities, to turn the governmental policies and programmes of population control into a social movement. The medias like T.V., radio and newspaper are good means to propagate the benefits of the planned family to the uneducated and illiterate people, especially in the rural and backward areas of the country.

Also, in the institutional or classroom setting, the teacher can make use of large variety of mass-media for the teaching of different types of lessons on population education. These media are—pictures, charts, maps, diagrams, graphs, films, black board, bulletin board, globe, tape recorder, field trips, etc. These media can be used both in classroom teaching as

well as in creating awareness among people about population issues. Let us now look at what role does these various means of mass-media play in population control.

14.6.1 Newspaper

You are familiar with this medium since childhood. Newspaper is one of the oldest means of communicating with the masses. It is a printed form of media.It plays an important role in spreading population awareness among masses both at institutional as well as general level. The newspaper includes a lot of information, opinion, views, etc. on various public, social and political issues. It reaches the masses easily and is of low cost. Most of the literate section of the society uses newspaper as a medium to know the world as well as the events happening in the world. Therefore, an issue like population control can be well-broadcast through newspaper. The role played by newspaper in controlling population are discussed in the following points—

- Newspaper creates public opinion on various issues related to population growth, population control, family planning, sex education, etc.
- It provides up-to-date information and news about population related issues with visual materials like pictures, graphs, cartoons, diagrams, tables etc.
- Reading matter has vast potentialities. It exerts strong influence on the individual's intellect as well as emotions and attitudes. It can thus influence the philosophy of life of the individuals.
- Newspapers contribute very largely in education of the masses. Press not only gathers events, they also present their own views on issues. So the reader gets an opportunity to consider an issue from many angles.
- Newspaper publishes different types of slogan related to family planning, need for population control, over-use of resources like water, etc. with attractive illustrations. This helps to create

awareness among the masses.

- Special articles are published in newspaper on population related issues to create awareness among the people about the consequences of uncontrolled population growth in the world.
- Newspaper disseminates detail knowledge about population situation, causes and consequences of population explosion and also gives the messages for population control.
- It informs the masses about the government policies and programmes on population control by publishing advertisements repeatedly.
- It is such a medium which can be referred to time and again whenever necessary, if we store it appropriately.

14.6.2 Radio

Radio is the greatest invention of its time. It gained tremendous popularity as an informal as well as non-formal agency of education. It has one of the richest potential of reaching the masses with any message. R.G. Reynolds describes the importance of radio as the most significant medium for education in its broadest sense that has been introduced since the turn of the century. As a supplement to classroom teaching its possibilities are almost unlimited. … children and adults in communities, however remote, have access to the best of the world's stores of knowledge and art (Aggarwal, 2010). Thus it can play an important role in population control. Let's see how it works.

- Radio can be used in all the forms of education—formal, non-formal and informal. It can be used as teaching aid to enrich the delivery of population and population control related contents of school syllabus. In non formal mode, it is used to deliver lectures, talks, etc. on population control to the learners. Informally, it also reaches the mass very fast with various information, news, etc. on population and its control.

- Radio broadcast can reach far and wide and remote places of the world, and thus can help spreading knowledge on population control.
- Radio helps to widen the outlook of the people about the world and its population problems.
- Information relating to population growth, health, family planning, nutrition, government policies and programmes are broadcast by radio with updated information.
- Radio broadcasts phone-in-programmes in which the people are given a phone no. to communicate with an expert of the field. It helps the masses to clear confusion about different population problems of their areas and also know about sex related diseases.
- Different population related discussions and talks broadcast in radio act as supplementary materials of instruction to enhance the understanding of the masses.
- Sensitive information related to population, population growth, population explosion, sex education, etc. can be subtly presented through the medium of radio.
- Radio is also a source of entertainment for the masses. So, it can use music, plays, story narrations, etc. to make people aware of the issues like population explosion, sex education, family planning, etc.
- Moreover, it is also a good medium to promote various types of birth control measures through advertisement.

Thus, we can see how radio helps to disseminate population education by reaching the masses. Availability of radio in mobile handsets has made it more popular and most used entertainment source among the masses. Since radio can be listened to while at work, at play, at drawing room, at travel, at recreational centres, it becomes a good medium to affect the mindset of the people. It not only informs, but also motivates. It inculcates values and virtues and also creates attitudes, interests and appreciation. However, care

is to be taken that the broadcasts should be of a very high quality and worth-listening to from the point of view of content, speech, style, audibility and presentability so that it can target all sections of the society .

14.6.3 Television

Television is a better medium than the radio in that it adds visuals along with auditory stimulus. It is because seeing is always more effective than only reading or hearing. Moreover, it is a regularly used medium of entertainment among the masses. There are different channels transmitting various types of programmes. The television can be an important central medium in providing functional, formal, non-formal and informal education to the masses. As the television gives us both audio and visual stimuli, the person watching the television is more engaged in the task of learning consciously or unconsciously. Hence, it has become a very important and powerful agency of mass communication for population control. Go through these points to understand its effectiveness as a strong medium of mass communication for population control.

- Television easily draws the attention of masses on the topic of population control and population education.
- Television can cast a long lasting effect on the masses on issues like population control, family planning, sex education, etc.
- Television makes the abstract ideas of population education like fertility, mortality, sex related diseases appear concrete and relatable to real life.
- Television is an effective means of developing modern outlook and change the attitude of people towards issues of population control. It can make the topics of family planning, sex education, contraception, etc. comfortable to be discussed among the masses, which are otherwise not comfortable to talk about.

- Television addresses the varied interests of the masses. For example, some people are interested in talk shows, some in cinema, some in music, etc. It telecasts different kinds of programmes to make people aware about the issue of population control.
- As India is yet to achieve 100% literacy, we have some sections of the society who are illiterate. Television provides need-based population education to these illiterate people. It is a good medium to reach those sections, who cannot be included in the formal or non-formal education.
- Various movies, talk shows, interviews with doctors, phone-in programmes, etc. based on issues of population explosion and population control may be telecast through television.
- The lecture programmes on television are more lively as people not only get verbal information and the instruction of the speaker but also the whole of his/her personality, including the emotional expressions.
- On television, news items related to population explosion and its consequences evident in various parts of the world, various population control measures taken by other countries with similar problems, etc. are shown along with reporting from the actual place. As a result of this, the problems are discussed and practical remedies and solutions are also suggested.
- Television can give a very good idea of the history of the country through dances, plays, short-films on historical moments, documentaries, etc. on events which are of political, social, global significance for population education.

There are some milestone instances of using television for social purposes like population education. In 1956, the educational television was started in India in the General Conference of UNESCO held in New-Delhi. During 1975-76, the famous Satellite Instructional Television Experiment (SITE) was implemented. The programmes telecast were related to education, agriculture, health, family

planning, national integration and so on. The target audience for this project was the rural population. In 2014, Population Foundation of India (an NGO) launched its flagship transmedia initiative 'Main Kuch bhi Kar Sakti Hoon' telecast on the DD Nation TV. It talks about the importance of family planning and issues of child marriage. You will find a short video excerpt of it in the link https://www.youtube.com/watch?v=9CuuaYSjWhs. Thus, after going through this section, you may well have an understanding that television plays a vital role as a means of mass media in educating the masses on issues related to population.



CHECK YOUR PROGRESS

Q 5: State two ways to use newspaper as a medium of population control.

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.....

Q 6: How can the radio influence the mindset of the people?

.....

.....

Q 7: Why television is said to be an appropriate medium for diverse population?

.....

.....

14.6.4 Other Audio-visual Aids

Audio-visual aids are some other media which can help us to reach the masses easily and quickly. They also help in making teaching more effective by adding some visual or auditory or both stimuli. They make learning experience more concrete, realistic, lively and dynamic. They make use of the senses of hearing as well as visuals. The contents of population education or issues related to population control are sensitive, abstract, less discussed and sometimes difficult to present or teach. Various audio-visual aids

can be used as instruments to help present such matters. Let us look at some important audio-visual aids which can be effectively used for presenting matters related to population control—

Pictures: Pictures are very effectively used in population education. Pictures can convey more than words. For example, pictures of overcrowded places, large habitant and small habitant places, small and large families, child marriage, environmental pollution etc. serve as illustrations. They can be used to make people realize about the impacts of population growth and the need of population control. The pictures may be carefully collected or prepared by the teacher.

Charts: Charts are very effective aid in teaching population education. Different types of charts may be used for the purpose. For example, cause and effect charts are used to show the relationship between population growth and socio-economic development, population growth and health, population growth and quality of life etc. Narrative charts are used to show events in a process, for example, chronological events in population policies and programmes in India, process of urbanization, process of institutionalization of population education, etc. Tabulation charts are used to show the numerical data of population for making comparisons. Charts of various characteristics of population may be used.

Graphs: Graphs are pictorial representation of numerical data. Population growth rate, mortality rate, fertility rate, immigration trend, emigration trend, male-female ratio, literate illiterate ratio, occupational composition, religious composition, age composition of population etc. can be shown through different types of graphs.

Maps: Maps are especially useful for teaching population statistics and world demography. The maps can be printed ones or drawn on a big piece of thick paper by the teacher him/herself. The teacher can also draw the maps on the board which of course requires a little practice on the part of the teacher.

Bulletin Boards: Bulletin board is a board fixed on the wall inside or outside the classroom. It can also be used in other social institutions like community library, club, playground, etc. It has to be fixed in a place where it gets maximum attention of the people. Various articles, posters, cartoons, graphs, news items, etc. related to population education are displayed on these boards. However, care has to be taken to update the items of the board frequently.

Pamphlets: Pamphlets are nothing but small printed unbound books or leaflets (consisting of a single sheet of paper folded in half, third or fourth) which contain information about a particular topic**.** Pamphlets are used to spread population and health related messages. You may find these in most of the private hospitals, offices of private practitioners, health-care institutions and voluntary health organization. These may also be used by the educational institutions in awareness programmes related to population control.

Films: Films provide both audio and video stimuli. Realistic presentation of facts is possible through films. They are highly popular audio-visual aid. They help in communicating ideas, influencing attitudes, sharing experiences, developing human relations etc. This media is proved to be very effective in population education. Films capture the reality and narrate it in a language of masses. Government uses films for informing about and for promoting family planning and family welfare programmes. Films depicting population events, mortality, fertility, migration, unemployment, over-crowding, child marriage etc. are very useful supplement to the classroom teaching as well. Some instances of films that have portrayed the issues of population explosion and its consequences are—Logan's Run (1976), Children of Men (2006), Wall-E (2008), The Age of Stupid (2006), Mother: Caring for 7 Billion (2011), etc.

Social Media Platforms: One of the fastest and most effective means of reaching the masses is social media platforms like Facebook, Instagram, YouTube, etc. These are platforms where

people register to remain socially connected to the world in a virtual mode. These are easily accessible to the masses as a large population is now able to afford mobile phones as well internet. Therefore, the messages, news or information which are disseminated through such social media platforms are very fast in spreading (getting viral) and therefore are a good medium to influence the mindset of the people on issues like population control, population explosion, population control policies, etc. Go through the link https://www.youtube.com/watch?v=oheFP4vSsac where you will find a Population Control Anthem.

The most important advantage of targeting the masses for population education, rather than limiting it to educational institutions, is that it affects a large number of people at one time and the effect is large-scale and long-lasting. Moreover, it is easier to talk on sensitive topics like population control, sex education etc. by using mass-media as it makes people comfortable to talk about such issues among themselves.



14.7 LET US SUM UP

- The ratio of population size and the resources available indicate many socio-economic parameters of development like poverty, hunger, environment, literacy rate etc.
- When the ratio of population size is not according to the resources available or to sustain resources for future generation, the need to control population is arises.
- Of the various agencies which help in population control, mass media is one of the most influential agencies.
- Population control involves measures that improve people's lives by giving them greater control on marters like reproduction.

- Some of the means of population control are—using contraception, abstinence, abortion, emigration, decreasing immigration, starvation, famine, pestilence, plague, war, etc.
- The adoption of means of population control by the people is strongly influenced by various agencies like religion, culture, education, media, etc.
- Mass media is the means used to communicate the general public. The source from which a 'mass' population gets their news and information is considered as mass media.
- Mass media influences and generates public opinions, informs, educates and entertains people in a wide variety of ways.
- Mass media acts as an agency of social change and helps in modification of attitudes, inculcation of desirable values and acquaintance with cultural heritage.
- The subject-matter of population education includes a large amount of facts and figures regarding population, health, environment, education, food and nutrition, economic development etc. All these information can be communicated to the people through mass-media.
- The newspaper reaches the masses easily and is of low cost. Most of the literate section of the society uses newspaper as a medium to know the world. Therefore, issues like population control can be well-broadcast through newspaper.
- Radio has a rich potential of reaching the masses with any message. It can be used in the classrooms, as well as it can reach the people in communities, however remote. Thus it can play an important role in population control.
- As the television gives us both audio and visual stimuli, the person watching the television is more engaged in the task of learning, consciously or unconsciously. Hence, it has become a very important and powerful agency of mass communication for population control.
- The contents of population education or issues related to population control are sensitive, abstract, less discussed and sometimes difficult to present or teach. So, various audio-visual aids can be used as

instruments to help present such matters.

- Pictures can be used to make people realize about the impacts of population growth and the need of population control. The pictures may be carefully collected or prepared by the teacher.
- Different types of charts are a very effective aid in teaching population education.
- Graphs can be used to show population growth rate, mortality rate, fertility rate, male-female ratio, literate illiterate ratio, occupational composition, religious composition, age composition of population etc.
- Maps are especially useful for teaching population statistics and world demography.
- Various articles, posters, cartoons, graphs, news items, etc. related to population education are displayed on bulletin boards.
- Pamphlets are used to spread population and health related messages.
- Films may be used for communicating ideas, attitudes, experiences, human relations etc. to the masses. This media is proved to be very effective in population education.
- Social media platforms are a good medium to influence the mindset of the people on issues like population control, population explosion, population control policies, etc.



14.8 FURTHER READING

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YouTube Channel Ravi Tripathi Official

YouTube Channel Population Foundation of India



14.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Population control refers to the methodology or the practices used to artificially control and maintain the type, location, size and rate of growth of the population.

Ans. to Q. No. 2: Some of the means of population control are—using contraception, abstinence, abortion, emigration, decreasing immigration, starvation, famine, epidemic, war, etc.

Ans. to Q. No. 3: A mass media may be defined as any means, agency, or instrument through which ideas, attitudes, impressions or images are simultaneously communicated to a large number of people.

Ans. to Q. No. 4: Mass-media make the information concrete and stimulate interest and excite curiosity in things. They simplify explanation and give clarity to it. Therefore, mass-media can be good motivators.

Ans. to Q. No. 5: Newspaper can create public opinion on various issues related to population growth, family planning and sex education. It can also inform the masses about the governmental policies and programmes on population control.

Ans. to Q. No. 6: Since radio can be listened to while at work, at play, at drawing room, at travel, at recreational centres, it becomes a good medium to affect the mindset of the people.

Ans. to Q. No. 7: Television addresses the varied interests of the masses. For example, some people are interested in talk shows, some in cinema, some in music, etc. It telecasts different kinds of programmes. So, television is said to be an appropriate medium for diverse population.



14.10 POSSIBLE QUESTIONS

A. Very Short Questions:

Q 1: When does the need to control population arise?

Q 2: State one function of mass-media.

Q 3: In which year India started the family planning programme?

B. Short Questions (Answer each question in about 150 words)

Q 1: Illustrate how social media platforms can be used in population control.

Q 2: Write in brief what kind of programmes related to population control can be broadcasted through radio.

C. Long Questions (Answer each question in about 300-500 words)

Q 1: Write in detail the significance of mass-media in controlling population.

Q 2: Describe how television proves to be an efficient medium in population control.

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UNIT 15 : POPULATION GROWTH AND EDUCATIONAL DEVELOPMENT

UNIT STRUCTURE

15.1 Learning Objectives

15.2 Introduction

15.3 Population Growth

- 15.3.1 Concept of Population Growth
- 15.3.2 Causes of Population Growth

15.4 Quality of Education and Population Growth

15.5 Population Growth and Adult Education

15.6 Population Growth and Vocational Education

15.7 Population Growth and Non-formal Education

15.8 Population Growth and Population Education

15.9 Let Us Sum Up

15.10 Further Reading

15.11 Answer To Check Your Progress

15.12 Possible Questions

15.1 LEARNING OBJECTIVES

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

- describe the meaning of population growth
- discuss the nature and causes of population growth
- explain the relationship between population growth and quality of education
- discuss the impact of adult education on population growth
- analyze the relation between population growth and vocational education
- explain the relation between population growth and non-formal education
- explain the impact of population education on population growth.

15.2 INTRODUCTION

By now, you must have realized that the size, quality, density and growth rate of population impacts various aspects of life. But the dynamics of population is inevitable. It is a continuous process. When the growth rate is very high, it leads to population explosion. So, it is important to control the population growth rate. To prevent or to remedy population explosion, it is important to maintain the rate of population growth. The United Nations (2015) states that “Between 1950 and 2015, the world’s population has nearly tripled, from around 2.5 billion in 1950 to almost 7.3 billion in 2015". According to United Nations estimates, the population growth rate at present hangs around 2.5 per cent annually. The rate of increase is a matter of concern. In the present unit we will discuss the concept of population growth, its causes and consequences, particularly on education. The Unit also discusses the role of adult education, non-formal education, vocational education and population education on control of population growth.

15.3 POPULATION GROWTH

Before we explore the relationship between population growth and some aspects of education, as mentioned in the Unit Structure, it is necessary for us to understand the concept, nature and the causes of population growth. Let us first look at the concept and nature of population growth.

15.3.1 Concept of Population Growth

Population is a very familiar term for you. Just for recap, population is the number of units (human beings) living in a region at a particular time. In this section, we will understand the concept and nature of population growth. Population growth refers to the change in the number of units in a population at a particular time at a particular place. Population growth is the function of mainly three aspects—fertility, mortality and migration. The growth rate of population is determined by counting the number of births and

deaths. It is important that the number of births, deaths, immigration and emigration remains balanced. Increased rate of population growth puts pressure on the resources available and thereby affects the living standard of people. The world's population, which numbered around 7.8 billion in 2020, has been growing rapidly and is expected to continue to grow in the coming decades, albeit at a progressively slower pace (United Nations, 2021). Population growth is related to social issue, climate change issue, food security issue, conflict issue, gender issue, economic issue, health issue, environmental issue and overall developmental issue.

15.3.2 Causes of Population Growth

As you have read in earlier section, growth of population is affected by birth rate, death rate and migration. So, when these factors are not in balance, population grows in a steady rate leading to population explosion. Now, we have to understand the reasons which impact these factors. Here we need to contextualize ourselves as these reasons may vary in different contexts. We will discuss the reasons in Indian context particularly.

- **Increased Birth Rate:** One of the factors leading to population growth is increased birth rate. The infant mortality rate and the pre-natal death rate have declined due to improved medical sciences. Also, the public health services have improved and have become easily accessible than earlier. People prefer medical help for delivery which results in healthy birth.
- **Decline in Death Rate:** The decline in death rate is also due to improved medical science and public health. With this improvement, various deadly diseases like, tuberculosis, cholera, malaria, small pox etc. were controlled successfully. There is better facility for control of epidemics and previously incurable diseases. The improvement in accessibility of quality health services so that it reaches to all the people has also a positive effect towards this. Various steps were taken to make

the people conscious about health and health services. The standard and coverage of primary health services were improved in the rural areas. The attitude of people towards medical treatment has changed and more people now go for scientific treatment rather than hesitating.

- **Migration:** With industrial revolution, liberalization of trade policies, people migrate from one place to another. In India, immigration of people from other countries acts as a serious factor in population growth. This leads to over-population especially in urban areas in the country and create problems like scarcity of resources, low quality of life and social evils etc.

Some other causes of population growth are—

Poverty: Another cause of population growth is poverty. There is a cyclic relation between poverty and population growth. Poverty is both the cause and effect of population growth. People remain poor because there is lack of adequate resources due to over-population. They increase the family size as an attempt to fight poverty by sending the children to work for income. So poverty causes population growth and population growth causes poverty.

Illiteracy: We also find a close relation between illiteracy and population growth. Illiteracy keeps people in ignorance. It makes it difficult for the people to understand the necessity of birth control or importance of small family norms. It is observed that the states where the literacy is very low particularly among females the birth rate is very high.

Early age of marriage for girls: Early marriage of girls is another cause of population growth. Even though legal age for marriage of girls is 18 years and that of boys is 21 years, many girls particularly in rural areas are married during the age group of 15-20 years and this increases their reproductive years.

Lack of Awareness: Lack of awareness about population issues, consequences of uncontrolled population growth, family

planning, etc. among the people is another cause of population growth. They do not understand its need and importance. The use of family planning methods is still unknown to some people. The absence of family planning habit among rural and low income urban families also acts as a cause of high population growth.

Socio-Cultural influence: Socio-cultural factors influence family size and consequently affect population growth rate. As a part of culture, religion has a profound effect on family planning. Many religions promote large families and strictly prohibit artificial means of birth control. The other socio-cultural factors include restricting education and employment opportunities to women, preferring boy child than girl child, etc. When women are educated and they can gain economic security, they will definitely make appropriate decisions regarding limiting the family size.



CHECK YOUR PROGRESS

Q 1: State the three main factors effecting population growth.

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Q 2: How is illiteracy and population growth related?

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15.4 QUALITY OF EDUCATION AND POPULATION GROWTH

The consequences of population growth have great impact on education system, economic development, and employment opportunities and over all environment of the country. You will find it interesting that the relationship between quality of education and population growth is intertwined. The impact on education however is of more concern because education is a factor which can help in controlling population growth. One of the most powerful tools in stemming population growth will be education,

says Mark Montgomery, an economics professor at Stony Brook University and a researcher at the Population Council (Murray, 2015). Many studies have proved that education has direct impact on family size and fertility aspects.

The Constitution of India envisages quality education for all. Here, quality education refers to education of a certain standard. A quality education is one that focuses on the whole child—the social, emotional, mental, physical and cognitive development of each student regardless of gender, race, ethnicity, socio-economic status, or geographic location (Slade, 2021). Educational development of a country, as measured by its adult literacy rate and school enrollment ratio, is found to be associated with certain demographic characteristics. It is shown that those countries most advanced educationally tend to have lower rates of population growth. Countries least advanced educationally are observed to have higher rates of population growth; their birth rates, already high, are tending to rise further. Countries at intermediate levels of educational development also show intermediate characteristics of population growth. Look, if quality of education is high, population growth remains stable and if population size is under control, it is possible to make quality education available for everyone. The quality of education of any nation determines the overall development of that nation. Quality education is directed towards all round development of the individual as well as well the society. It enables people to reach their optimum potential and become a productive member of the society. Quality education caters to local, regional, national and global developmental needs. Actually, education works as an instrument for reducing population growth. It can make people aware of the problems that arise due to population explosion, the importance of following the population policy of a nation, the ways to control population, etc. Educated women are empowered to take decisions in various matters including family matters. This has great impact on population control. Education is also helpful in removing superstitious beliefs, customs and social taboos regarding birth control. Research has proved that women who are better educated are more knowledgeable about the importance of and scientific ways for limiting fertility and spacing of child

birth. Women with higher levels of education desire smaller families (United Nations, 2003). Small families can provide quality education and better resources and environment to their children. Due to rapid growth of population in India, education has become costly. A large section of people is deprived of quality education. Fast growth of population has resulted into more students in small classrooms, indiscipline, lack of quality education, wastage and stagnation, etc.

Various countries have used different measures for controlling population growth like legislative measures, educational measures, social measures, etc. But education has always proved to be sustainable measure for controlling population growth. A comprehensive, inclusive and quality education system is capable of controlling the growth rate of population. For example, it is more effective to empower women through quality education about reproductive health, legal age of marriage, making themselves self-sufficient than to enforce legislative measures on them.

15.5 POPULATION GROWTH AND ADULT EDUCATION

An adult is a person who is 19-21 and above years of age. Adult education refers to education of those adults who did not get the opportunity either to attend or to complete the formal education. Education is a lifelong and continuous process. It starts from birth and continues till death. The basic aim of education is to develop the individual's innate power, develop their physical, mental, moral, spiritual and emotional ability. The education which provides for development of adult's talent and expertise at work, is known as adult education. It is a community based activity. Therefore it is local-based in nature, i.e., the programme is designed on the basis of the needs of the prospective participants. In India, adult education has been closely linked to literacy. Adult education is a practice in which adults engage in systematic, sustained, self educating activities in order to gain new forms of knowledge, skills, attitudes or values. It aims to provide self reliance, confidence and self dependence to the adult learners. The purpose of adult education is to increase the literacy rate and to put the illiterate people further on the path of knowledge. Adult education also contributes towards

social and economic development.

While imparting population education to adult learners, it is important to be sensitive. The sermonic way of preaching does not yield effective results. The adults have already developed their own notions about issues like birth control, family planning, growth of population, etc., so it is difficult to change their ideas, attitude and values. Therefore, it is important that population education is integrated with the contents of adult education and literacy materials. You have already read in the previous section that one of the causes of population growth is illiteracy. So, adult education helps in controlling population growth by increasing literacy rate. Through adult education people can be made aware about small family norm, benefits of controlling family members, health condition of mother and child, economic prosperity of the family, proper education of their children and maintenance of standard of living. Adult education can reduce superstitions and wrong conception regarding fertility and birth control.

Government of India launched National Adult Education Programme in 1978. The aim of this programme was to educate non-literate adults within five years. The Population Education Project in Adult Literacy and Continuing Education was launched in 1986. The Directorate of Adult Education executed the project. It was implemented through the state and regional resource centres, which provide technical and academic support to literacy programmes in the states. The National Literacy Mission, launched in 1988, was not confined to spreading literacy but it also included issues like family welfare, immunization, mother and child health care, conservation of environment etc. Literacy enables a person think rationally and be aware of own responsibilities. The biggest achievement of adult education is the empowerment of women, which have far reaching effect on population growth. The NEP 2020 has envisaged strong and innovative government initiatives for adult education to accelerate the aim of achieving 100% literacy. For this, an adult education curriculum framework, suitable infrastructure, training of the instructors/educators by the National, State, and district level resource support institutions, ensuring the participation of community members in adult education, improving the availability, affordability and

accessibility of books, quality technology-based options for adult learning such as apps, online courses/modules, satellite-based TV channels, online books, and ICT-equipped libraries and Adult Education Centres, etc. will be developed. Thus, adult education plays an important role in controlling population growth.



CHECK YOUR PROGRESS

Q 3: How does education of women help in control of population growth?

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Q 4: Why is it sensitive to impart population education to adult learners?

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Q 5: What are the different aspects of adult education highlighted by the NEP 2020?

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15.6 POPULATION GROWTH AND VOCATIONAL EDUCATION

Vocation is related to employment and employment is related to population growth. A vocation is 'a person's employment or main occupation, especially regarded as worthy and requiring dedication'. Vocational education is a type of training, usually in the form of courses and hands-on training that teaches students the specialized skills required to perform a specific job. Vocational education aims at training people for suitable jobs, in regard to the abilities, aptitudes, physical and emotional aspects of individual.

Now, let us try to understand the relationship between population growth and vocational education. Population size is related to employment opportunities and both are related to the economy of the country. If the population growth rate is very high, the problem of unemployment arises.

Due to rapid growth of population young people do not get opportunities for employment. In formal system of education there is rarely any provision for vocational education. Through vocational education, people become self-reliant and also support their families. Vocational education guides the young people for their self employment or to choose their career wisely. Moreover, vocational education produces skilled workforce which helps in increasing productivity. Increased productivity is helpful in supporting the growing size of population. Thus vocational education helps in curbing some menaces created by increasing size of population.

The Indian government has taken various steps regarding vocational education. In 1988, the Population Education Project in Vocational Training was started by the Ministry of Labour in vocational training institutes, mostly Industrial Training Institutes (ITIs). The National Education Policy, 2020 also recognizes the crucial role of vocational education in building the Indian demographic dividend. The policy aims to ensure that by 2025, at least 50% of the learners across schools and higher education systems have exposure to vocational education. In this regard, the policy notes the need to effectively integrate vocational education into mainstream education across all educational institutions in a phased manner using various measures which include—facilitating collaboration with local industries, establishment of incubation centres or skill laboratories and the conduct of short term certificate courses. To facilitate such integration, the policy also calls for the creation of a National Committee for the Integration of Vocational Education **(NCIVE)**, consisting of experts in vocational education and representatives from ministries in collaboration with industry.

15.7 POPULATION GROWTH AND NON-FORMAL EDUCATION

You are well aware that education has three forms—formal, informal and non-formal. Non formal education is the alternative of formal system of education. It lies outside the formal system of education but at the same time, it is organized and systematic with well defined objectives. It provides wider learning opportunities. The distinctive feature of this system of

education is its flexibility and low cost. The target groups of non-formal education are those people who were not able to join or to complete the formal elementary school due to one or the other reason. For example, the school drop-outs, neo-literates, working people and disadvantaged group of the society. It complements the formal education system and acts as an instrument to achieve 100% literacy. It provides opportunities for employment as well as scope for professional development. It is an organized programme of learning.

Non formal education is a strong agency for eradication of ignorance, superstition from the society as it targets those people who actively or passively designs the social norms through participation. Another important aspect of non formal education is that one of its target groups is women. Education empowers the women. They become conscious about their rights, duties, health, child care, benefits of bearing fewer children. This has direct impact on population issues. Thus non-formal education helps to develop equality, economic status, specific needs and empowerment. It plays a crucial role regarding control of population growth.

In a developing country like India, we already have mismatch between the size of population and the resources available. The formal education system alone cannot cater to the educational needs of fast growing population with diverse needs. From time to time, the government of India has taken various initiatives for non-formal education. For instance, Education Guarantee Scheme, Alternative Schooling Programme, Shiksha Karmi Project, National Institute of Open Schooling, State Institutes of Open Schooling, etc. are non-formal education initiatives taken either by state govt. or central govt. These programmes aim at making education accessible to everyone in a flexible way. This results in more people getting education and thus helping in spreading awareness, knowledge, attitude and skills of population control. Recently, the NEP 2020 has suggested for expansion and strengthening of Open and Distance Learning (ODL) Programmes offered by the National Institute of Open Schooling (NIOS) and State Open Schools. It has suggested various new programmes to be offered by these institutions. It highlights that the focus will be to have less emphasis on

input and greater emphasis on output potential concerning desired learning outcomes. Efforts will be made to involve community and alumni in volunteer efforts for enhancing learning. Making non-formal education more accessible to the people means making it easy for the people to understand issues of population growth. Thus non formal education acts as a strong instrument for control of population growth.



CHECK YOUR PROGRESS

Q 6: In which year the Population Education Project in Vocational Training was started?

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Q 7: Name any two govt. of India initiatives for non-formal education.

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15.8 POPULATION GROWTH AND POPULATION EDUCATION

Though you might be familiar to the term population education, it is a relatively new field of study. Also the concept is dynamic, i.e. it keeps changing according to the changing needs, requirements and emerging issues and concerns. Population education refers to change in the attitude and behaviour patterns of the individual in regard to population issues. It is an educational process to create awareness in the people regarding causes and consequences of population growth. It aims at presenting to the learners the multi-faceted aspects of population situation at micro and macro levels with clear-cut emphasis on cause and effect relationship between different aspects and factors of population. It enables people to make rational decisions regarding issues like family planning, birth control methods, sustainable use of resources, standard of living, quality of life, etc. Population education is a comprehensive programme which includes the nature, causes, changes, characteristics, distribution, and consequences of population change and control aspects of human population.

Properly planned population education programmes at all the stages of education are important to make people aware of the responsibility towards future generation and the society. Population education prepares young people for adult roles in future. It imparts education on family planning. Family planning is an attempt by the individual to choose the number and spacing of children and to make reproductive behaviour responsible. This is directly related to population control. Population education also helps people recognize and define the nature of problems which have population components. It helps them realize better, how problems arise and what consequences their decisions and action will have. Population education also aims at enabling people to contribute towards solution of population related problems.

In India, imparting population education is a little challenging because of the diverse social and cultural norms associated with family, family planning, birth control, etc. However, various measures have been taken in this regard. It is more effective when the future parents can be educated at their young age. The Indian education system got serious about population education when a National Seminar was organized on Population Education in the year 1969. It led to launching of the National Population Education Project in 1980 with the help of United Nations Fund for Population Activities (UNFPA). This project was launched to introduce population education in formal education system. The UNFPA recognizes that young people's concerns extend beyond the issues of reproductive health and include issues related to their education, livelihood and citizenship. Broad strategies include supportive policy making, provision of gender sensitive, life skills education linked with youth-friendly sexual and reproductive health services driven by young people's leadership and participation. The Population Education Project in Higher Education started in 1986 with financial assistance from United Nations Fund for Population Activities (UNFPA). The major objectives of incorporation of Population Education within the University and from there to the Community are both academic and social. The commitment of the UGC to population education at the university and college levels goes back to 1983 when 92 universities and 1300 college were provided financial

support to organize population education activities through Population Education Clubs both for college youth on campus and through them to the community. Since 1986 the PE program has been implemented by establishing Population Education Resource Centers (PERCs) in the Department of Adult Continuing Education and Extension in twelve universities, namely, Jammu, Delhi, Gujarat Vidyapeeth, SNDT Women's University, Poona, Madras, Kerala, Vikram, Burdwan, Ranchi, NEHU and Gandhigram Rural University. Thus we can see that population education has been incorporated in different stages of education in specific ways.



15.9 LET US SUM UP

- Population growth refers to the change in the number of units in a population at a particular time at a particular place. It is the function of mainly three aspects—fertility, mortality and migration.
- Growth of population is affected by increased birth rate, declining death rate, migration, poverty, illiteracy, early age of marriage for girls, lack of awareness and socio-cultural influence.
- The most educationally advanced countries tend to have lower rates of population growth. Least educationally advanced countries are observed to have higher rates of population growth.
- If quality of education is high, population growth remains stable and if population size is under control, it is possible to make quality education available for everyone.
- Education makes people aware of the problems that arise due to population explosion, the importance of following the population policy of a nation, the ways to control population, etc.
- Educated women are empowered to take decisions in various matters including family matters. Small families can provide quality education and better resources and environment to their children.

- Various measures for controlling population growth have been adopted like legislative measures, educational measures, social measures, etc. But education has always proved to be sustainable measure for controlling population growth.
- While imparting population education to adult learners, it is important to be sensitive as they have already developed their own notions about issues like birth control, family planning, growth of population, etc.
- Government of India launched National Adult Education Programme in 1978. The Population Education Project in Adult Literacy and Continuing Education was launched in 1986.
- The National Literacy Mission, launched in 1988, was not confined to spreading literacy but it also included issues like family welfare, immunization, mother and child health care, conservation of environment etc.
- The NEP 2020 has envisaged strong and innovative government initiatives for adult education to accelerate the aim of achieving 100% literacy.
- Vocational education is a type of training, usually in the form of courses and hands-on training that teaches students the specialized skills required to perform a specific job.
- If the population growth rate is very high, the problem of unemployment arises. Through vocational education, people become self-reliant and also support their families.
- Vocational education produces skilled workforce which helps in increasing productivity. Increased productivity is helpful in supporting the growing size of population.
- In 1988, the Population Education Project in Vocational Training was started by the Ministry of Labour in vocational training institutes.
- The NEP 2020 aims to ensure that by 2025, at least 50% of the learners across schools and higher education systems have exposure to vocational education.
- Non-formal education helps people in getting education and thus helping in spreading awareness, knowledge, attitude and skills of

population control.

- The NEP 2020 has suggested for expansion and strengthening of Open and Distance Learning (ODL) Programmes offered by NIOS and State Open Schools.
- Population education refers to change in the attitude and behaviour patterns of the individual in regard to population issues.
- Population education helps people recognize and define the nature of problems which have population components. It helps them realize better, how problems arise and what consequences their decisions and action will have and how they can contribute towards solution of the problems.
- The National Population Education Project was launched in 1980 to introduce population education in formal education system.
- The Population Education Project in Higher Education started in 1986 to incorporate Population Education within the University and from there to the Community.



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15.11 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: The three main factors determining population growth are fertility, mortality and migration.

Ans. to Q. No. 2: Illiteracy keeps people in ignorance and makes it difficult for the people to understand the necessity of birth control or importance of small family norms, thereby resulting in population growth.

Ans. to Q. No. 3: Education empowers women to take decisions in family matters as well as helps in removing superstitious beliefs, customs and social taboos regarding birth control. Thus it helps in control of population growth.

Ans. to Q. No. 4: The adults have already developed their own notions about issues like birth control, family planning, growth of population, etc., so it is difficult to change their ideas, attitude and values.

Therefore, it is important to be sensitive while imparting population education to adult learners.

Ans. to Q. No. 5: The NEP 2020 envisages development of an adult education curriculum framework, suitable infrastructure, training of the instructors/educators, ensuring the participation of community members, improving the availability, affordability and accessibility of books, quality technology-based options for adult learning and Adult Education Centres.

Ans. to Q. No. 6: 1988

Ans. to Q. No. 7: Two Govt. of India initiatives on non-formal education are— Alternative Schooling Programme and National Institute of Open Schooling.



15.12 POSSIBLE QUESTIONS

A. Very Short Questions

Q 1: Define population growth.

Q 2: What are the factors leading to decline in death rates?

Q 3: Name the population education projects in India funded by UNFPA.

B. Short Questions (Answer each question in about 150 words)

Q 1: Write how migration acts as a factor of population growth.

Q 2: Write note on initiatives of the Govt. of India on vocational education.

Q 3: Write a brief note on the population education initiatives in India.

C. Long Questions (Answer each question in about 300-500 words)

Q 1: Explain in detail the relation between population growth and adult education.

Q 2: Discuss how the recommendations of NEP 2020 on adult education, vocational education and non-formal education would help in control of population growth.

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