# UNIT 3 : POPULATION EXPLOSION

## UNIT STRUCTURE


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## 3.1 LEARNING OBJECTIVES

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

- discuss the concept of population explosion
- enlist the characteristics of population growth
- explain the causes of population explosion
- aquaint with the problems of population explosion
- explain the steps to be taken to check the population growth

## 3.2 INTRODUCTION

The growth and increase of human population has created serious problems in developing countries in general. The causes and consequences of population growth has become a vital issue for modern society. There is an urgent need for controlling population growth to maintain the quality of life. Planners suggested that special measures

must be taken to bring down population growth if the economic development needs to be sustained. Accordingly the Government of India has been trying to check the population growth through Population Policy and by making provisions for population control in each Five Year Plans. But these plans could not yield significant results. It is hoped that education may contribute significantly in controlling human population growth.

This unit deals with the concept of population explosion, characteristics of population growth, causative factors of population explosion, problems created by population explosion and steps to be taken to control population growth.

## 3.3 POPULATION EXPLOSION-CONCEPT

Population explosion or over population denotes a situation in which the number of people living in a country rapidly exceeds its carrying or sustaining capabilities. The term population explosion refers to the relationship between human population and its environment, the Earth. In other words, it is related to ecological balance, which is very important for the survival of different plants and species in this planet.

Population explosion has become one of the most fundamental problems of the world. As far as India is concerned, the increase of population is much higher than other countries of the world. One out of six people on this globe live in India. It occupies second place after China in population and is projected to cross China's population with 1.5 billion people by 2040.

According to statistics, as of March 2011, the total population in India was a little over 1 billion—1,210,193,422 to be exact. The population Clock in the Union Health Ministry in New Delhi ticks at the rate of 31 persons per minute. The clock shows that about 44,640 babies are born in India everyday. This gigantic growth rate has thretened not only the economic growth but also the quality of life as a whole.

The world population has been increasing in an unprecedented rate since the Second World War. This growth of population has created great pressure on agriculture for more food and industries for further development. Deforestation is going on at a very large scale resulting in soil erosion, changes in the climate and exploitation of natural resources. This has raised concerns that humans are beginning to overpopulate the earth and the planet may not be able to sustain larger number of inhabitants. The scientific consensus is that, the current population expansion and increased usage of resources have led to

threats to the ecosystem. Many environmental problems like the rising levels of atmospheric carbondioxide, global warming, pollution etc. are aggravated by the population explosion.

Thus, population explosion is nothing but rapid increase of population. As stated above, most developing countries have contributed to the drastic population increase over the past hundred years. This has become the most serious problem facing our earth today and the phenomenal growth of population now more appropriately termed as population explosion.

## 3.4 CHARACTERISTICS OF POPULATION GROWTH

Population characteristics are things like birth rate,death rate, immigration, emigration, geographical distribution and population density and growth rate etc. On the basis of these factors, some characteristics of population growth can be formulated as follows:

- Changes in human numbers in a particular area between two different times may be called population growth.
- If the growth is more than the previous year, then it is called as a positive increase, or if it is less than previous years it is called as a negative increase.
- Growth of population is more in developing and underdeveloped countries, than developed countries.
- Growth of population is more rapid in poor and underdeveloped countries than developing countries.
- Due to rapid increase of population, the development of these developing and underdeveloped countries is less than desired.
- Rapid growth of population increases the rate of illiteracy and poverty.
- Rapid growth of population creates human health hazard and also increases the disparity between rich and poor countries in their socio-economic as well as general life.
- Increase of population also affects the use of natural resources which causes imbalance in its use.

## 3.5 CAUSATIVE FACTORS OF POPULATION EXPLOSION IN INDIA

Now you know what population is. It is essential for us to understand the causative factors which have contributed towards the phenomenal growth of population in India. Several factors like social, economic, cultural, psychological etc. are responsible for the enormous growth of population. Let us now discuss some of the important factors responsible for population growth which are as the following:

- **Fertility:** Persistent high fertility of women, who are likely to get children, is one of the most important factor. This age group is 15 to 45. Very few women are likely to get children after 45. When women are young they build their family more quickly. The birth rate in India is much more as women marry early. 70% of the girls aged 15 to 19 are married as against the figure of only 15% in USA. In 20 to 24 age group, in India, all are married—only a small fraction get married in the age group 25—29. In USA, a considerable section remains unmarried but marrige is almost universal in India. Early marriage, universal marriage of women means more births and increase in population.
- **Widow Remarriage:** Widow remarriage is becoming increasingly popular in India. When such remarriages are common, birth rate will increase. Over 90% women in ages 20—35, when fertility is high, are now married.
- **Preference for Sons:** The religious injunction to leave a son behind to perform religious rites and carry on the family`s name after the death of the father is deeply rooted in the social and economic conditions in the country. Moreover, the joint family system places a high value on the sons. As there is no social security for the aged, couples saw safety in large number of children, so that there could be at least one or two sons to take care of them in old age. Thus, the idea of limiting the family size did not enter peoples mind.
- **Education of Girls:** Lack of education among girls is one of the major factors in keeping up large family norms. In the rural areas particularly, the literacy rate among women is low. As they marry early, they rarely get an opportunity to form some opinion regarding the number of children they should have. The attitude towards having a large family is also influenced by customs, religious doctrine and traditions of the society.

- **Employment of Children:** Although employment of child labour in the organised industries is prohibited by law, they find large employment in the unorganised sector. Their upbringing cost is practically nothing if they are employed in agriculture or in household industries. As a very large section of our people lives in extreme poverty, they consider more children means more income for the family. In these circumstances, a large family is more of an asset than a liability.
- **Attitude towards Family Planning:** Attitude towards family planning determine whether or not it is practised. In most cases, women are more likely to approve family planning. The gap between men's and women' approval rate is wider, as the male approval rate in family planning is lower. Different studies and surveys have shown that women posses more favourable attitude than men towards family planning and birth control, but due to their low social status, they have very little or no say in deciding the size and spacing of their families.
- **Widening Gap between Birth and Death:** The rapid growth of the world's population over the past hundred years results from difference between the rate of birth and the rate of death. It is largely because of the industrial and technical revolutions that had taken place in recent times. The new technologies have not only brought down the death rate because of the vastly improved medicare resulting in increased life expectancies but have also provided facilities of increased food production to take care of food needs of the increasing population.
- **Migration:** Migration has also contributed towards the population growth of India. Migration means to pass from one country to another. People genarally migrate from one country to another in search for a better livelihood. To some extent, migration is a common phenomenon throughout the world. But if it occurs in a large scale, it may create serious social, cultural economic and political problems for a country. Migration creates adverse influence both quantitatively and qualitatively. In such a situation, it becomes an international problem.

Our state Assam is facing such a problem today. Migration from the neighbouring countries namely Bangladesh and Nepal have created tremendous pressure on the economy of the state. It has also created problems in socio-cultural life of the people. Therefore, it is the duty of the Union Government to take strong steps to control such migration to save the country from unwanted problems.

## W CHECK YOUR PROGRESS

**Q 1:** What is population explosion?

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**Q 2:** Name the most populous country of the world.

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**Q 3:** Mention some environmental problems caused by population explosion.

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**Q 4:** Write three characteristics of population growth.

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**Q 5:** List the causative factors responsible for population growth.

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## 3.6 PROBLEMS OF POPULATION EXPLOSION IN INDIA

By now, you must have realised the gravity of the problem of population growth which is haunting different sectors of development of our country. This is why, despite our spectacular progress in agricultural and industrial spheres since Independence, our per capita income has not risen appreciably. If the population continues to increase at this rate, in a few years from now, we will have an army of unemployed, hungry and desperate people who will threten the very foundation of the social, economic and political systems and institutions of the country. All sectoral demands have a numerical dimension. Whether it is education, employment, health, housing, water supply or any other sector, the pertinent question is: For how many? Let us discuss how population explosion has created problems in different sectors of development.

### 3.6.1 Effects of Population on Education

One of the major problems of rapid growth of population is that of providing schooling to the growing number of children. Though many developing countries

have taken up sizable number of educational schemes to eradicate illiteracy and thus increase the enrolment ratio of school going children, they have not succeeded in keeping pace with the increase in number of child population.

The impact of population growth in education can be measured by four indices, such as, student index, teacher index, organisation index and material index. We summaries the problems arising out of over population in the areas mentioned belows.

- There will be a very high gap in teacher- pupil ratio, i. e.,more than 50 pupils to one teacher, leading to less attention to individual pupils while teaching; possibility of sickness and poor health among pupils, lack of proper health care, facility for drinking water, toilets and so on.
- Teacher will be paidless and will be less qualified. They will have meagre motivation on their part and less social recognition.
- Organisation will show inadequate supervisory staff, less space facilities,less budget for education and less administrative initiatives.
- Material index will reflect the deficit in many aspects. There will be poor library facilities and laboratory equipments,text books, audio- visual aids etc. Buildings will be inadequate for huge numbers; thus there will be lacuna in many other spheres.

  Alongwith these, some other problems will affect the educational scenario of the country such as:

- **Low Quality Education:** Due to enormous growth of population it will not be possible to keep pace of quality with quantity which ultimately may lead to lowering the standard of education.
- **Problems of Discipline:** The human population is increasing rapidly in towns and cities but facilities for higher education are not increasing. There is heavy pressure on colleges, technical and medical institutions. This is one of the main causes of student unrest in our country.
- **Money Earning Business:** Education has become a money earning business for some people. As the demands for education is increasing with increasing numbers, they demand more money for enrolment in their institutions, whose standard of education are also doubtful. Many fake educational institutions have also come up and are taking the advantage of the situation.

### 3.6.2 Impact of Population Explosion on Environment:

Most of the environmental problems are caused by human population growth whether it is in India or the world as a whole. The following are some of the major problems which are due to the rapid growth of population:

- **Degradation of the Quality of Environment:** The population connection revealed that with the growth of population since 1950, 80% of the rainforests have been cleared, more than 10,000 wildlife and plant species have been lost, green house gas omission has increased potentially by 400% and half of the surface land of the Earth has been used for commercial purpose,which still continues.
- **Deterioration of the Quality of Food:** To meet the increasing demand for food, chemical fertilisers are used to increase agricultural productions. The use of pesticides for protection of corps and seeds deteriorates the quality of food.
- **Urbanisation:** Urbanisation of population and settlement is increasing rapidly. It has caused sewage waste, automobiles, air, water and noise pollution.
- **Industrialisation:**Industrialisation and technological development is essential to meet the needs and requirements of the country. It has also caused air, water, land and noise pollution in the industrial estate.
- **Water Scarcity:** It is now expected that the population of the world is likely to be exposed to scarcity of water in the future. Water stress will further intensify the difficulties in meeting the water consumption levels, thus wreaking devastating affects on the eco- system.

### 3.6.3 Impact of Population Explosion on the Socio-economic Life of the people

Unprecedented population growth in the recent decades, has created shortages of various resources which eventually lead to various problems in the socio economic life of the people. Some of these are:

**Overcrowding:** It has been mentioned earlier that every sixth man in this globe is an Indian. But India has only 1/45$^{th}$ of the world's total land. At the present growth rate, population of one Australia is being added to India's population every year. The excessive

concentration of population in towns give rise to various social evils such as development of slums, insanitary living conditions, exposure of children to deviant social behaviour, insufficient supply of goods and services etc.

**Unemployment:** A rapidly increasing population plunges the economy into mass unemployment and underemployment. This inevitably results in low national income, poor standard of living and miserable plight of the people.

**Housing:** Shelter is one of the three basic needs of men, the other two being food and clothing. The need for an adequate housing facilities, is therefore, very vital. Leaving aside the considerable rural population,the condition in the cities and industrial towns are worse. Most of the industries grow up without any plan and hence cities have grown haphazardly. The result is that innumerable slums exist in the country.

**Poor Standard of Living:** Per capita income is the indicator of quality of life of a country.Higher per capita income indicate higher standard of living and lower per capita income is for the lower standard of living. The real income of the people is the resultant factor of various variables like rate of economic development, level of consumption, capacity of food intake, health and medical services, education of the people etc. India's per capita income is lower than other developed countries and therefore, the standard of living is also poor.

**Quality of Man:** The quality of man is also deteriorating due to rapid growth of human population. The corruption and evils of the society are increasing rapidly. There is devaluation in political, religious, social and cultural spheres of life. The human being is polluted physically, socially, psychologically and culturally due to rapid growth of human population in our country.

**Medical and Health Care Facilities:** Like all other underdeveloped countries of the world, India is lagging behind in providing medical facilities. Rapid population growth has created huge gap between the need and supply. In recent years although spectacular progress has been made in the urban areas, the rural areas the are still suffering. There is no doubt that situations have improved a lot but still there exists a wide imbalance in regard to facilities available in the rural areas. Maternal mortality and infant mortality rate are still high compared to other developed countries. Nutritional deficiency among women and children is very common.

The country has to take a long step to improve medical and health care facilities for all.

## 3.7 STEPS TO BE TAKEN TO CHECK THE GROWTH OF POPULATION

For a developing country like India population explosion is nothing but a curse which is damaging the development of the country and its society. An analysis of the causes of population explosion reveals that it is a serious and complex problem. It is not easy to find out an immediate solution of this problem as it is related to socio- psychological, economic, religious and political life of the people. The following steps may prove very helpful in this direction:

- The Government should intensify its effort to educate the people on the adverse effects of population explosion.
- The population explosion can be effectively checked only when the people are inclined towards smaller families.
- With the increase in the literacy rate and improved socio- economic status, people can be educated to adopt a favourable attitude towards small family norm.
- People who have one child and maintain a small family, benefits like free education, better facilities and financial support should be put forward so as to encourage nuclear families.
- Family life education should be designed with the purpose to educate the youth about the concept of family; structure, types, functions of the family; information about human sexuality; responsible parenthood and soon.
- The legal age of marriage should be raised. It should be 21 years for girls and 25 years for boys.
- Effective steps should be taken to empower women through education. It enables them to respond to opportunities to challenge their traditional roles and to change their lives. Women's education also has an effect on family size. The more years of education a woman has, the fewer children she tends to bear.
- The government should take steps to improve the socio- economic condition of the people by providing proper education, better facilities for health care, shelter etc. which ultimately help to reduce the population growth rate.

In conclusion, we can say that a united effort of the Government, non-governmental organisions, media and other organisations will definitely help to bring down the growth rate of population in our country.

## W CHECK YOUR PROGRESS

**Q 6:** State the problems created by population explosion in the field of education.

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**Q 7:** Explain briefly— Urbanisation, Unemployment, Overcrowding.

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**Q 8:** What are the basic needs of men?

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**Q 9:** How population explosion has effected the socio- economic life of the people?

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**Q10:** List some measures that could be adopted for controlling population growth.

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## 2 3.8 LET US SUM UP

- Population explosion has become one of the most fundamental problems of the world. It denotes a situation in which the number of people living in a country rapidly exceeds its sustaining capacities.
- Current population growth in India and increased usage of resources has created pressure on the economy. Growth of population is more rapid in poor and under developed countries than in developed countries.
- There are several factors— like the social, economic, psychological, religious etc. responsible for the enormous growth of population. In India, women marry early and they build their families more quickly. Moreover, joint family system places high value on sons. The gap between birth rate and death rate is increasing because of vastly improved medicare and increased food production. Migration from one country to another also contributes towards population growth.
- Population explosion has created many problems in different sectors of development whether it is education or environment or economy of the country. In education, there will be very high gap in teacher- pupil ratio, shortage of staff,

shortage of different educational facilities like furniture, library, laboratory etc., which will ultimately lead to poor quality education and problem of discipline.

- Population growth has contributed towards major environmental problems like degradation of the quality of environment, deforestation, air, water and noise pollution etc. It has also affected the socio- economic life of the people.
- Migration of people from villages to towns in search of livelihood has led to excessive concentration of people in cities and towns which give rise to various social evils. Besides these, unemployment, under employment, lack of housing facilities, lack of medical and health care facilities have created serious problems.
- The Government must take certain steps to educate people about the adverse effects of population explosion. People can be educated to adopt small family norms.
- Family life education should be designed to educate young people about the concept of family structure, functions, information about human sexuality, responsible parenthood etc. Effective steps should be taken to empower women through education and also to improve the socio economic condition of the people, which ultimately help to reduce the growth rate of human population.

## 3.9 FURTHER READING

1) Agarwala, S. N.(1966) *Some Problems of India's Population*, Vara Publishing Co. Bombay
2) Das, B. B. (2011) *Population Explosion- Its Problems and Awareness in Environmental Education*,Edited by S. Das, K. K. Publication. Guwahati
3) Nanda, S. K. (2002) *Population Education: An Informative Update*, Doaba House, Delhi

## 3.10 ANSWERS TO CHECK YOUR PROGRESS

**Ans to Q No 1:** Population explosion means rapid growth of human population in a country which disturb the ecological balance of environment.

**Ans to Q No 2:** China.

**Ans to Q No 3:** Destruction of forests, vegetation and grassland for agricultural land, soil erosion, floods, draught, air, water and soil pollution.

**Ans to Q No 4:** Growth of population is more in developing and underdeveloped countries. Growth of population is more rapid in such countries. Due to rapid increase of population the development of these developing countries is less than desired.

**Ans to Q No 5:** Fertility of women, preference for sons,low status of women, employment of children, widening gap between birth and death rate, unfavourable attitude towards family planning, migration etc.

**Ans to Q No 6:** High gap in teacher- pupil ratio, inadequate teaching staff, inadequate supervising staff, low budget for education, lack of equipments, lowering standard of education, problem of discipline etc.

**Ans to Q No 7:** *Urbanisation:* It means migration from rural to urban areas has caused sewage waste, lack of housing facilities, development of slums and many other social evils.

*Unemployment:* Unemployment means absence of work for the able bodied persons who are willing to work. Unemployment is increasing significantly due to population explosion in our country.

*Overcrowding:* At present growth rate population of one Australia is being added to India's population every year. The excessive concentration of people in urban areas give rise to many social evils like development of slums, exposure of children to deviant behaviour, insufficient supply of goods and services etc.

**Ans to Q No 8:** Food, shelter and clothing.

**Ans to Q No 9:** Low per capita income, low standard of living, lack of proper medical facilities, lack of shelter,clothing etc.

**Ans to Q No10:** Educate people about small family norm, making provision for family life education, improvement of standard of living, creating better facilities for those who have one child etc.

## 3.11 MODEL QUESTIONS

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

**Q 1:**What is population explosion?

**Q 2:** What do you mean by population growth?

**Q 3:** What do you mean by overcrowding?

**Q 4:** How has the population explosion affected the socio- economic life of the people?

**Q 5:** Do you think that urbanisation is increasing due to population explosion?

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

**Q 1:** Explain the characteristics of population growth in India.

**Q 2:** What are the effects of migration due to population growth ?

**Q 3:** How would you like to relate population growth with unemployment?

**Q 4:** Discuss some measures that could be adopted for controlling population growth.

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

**Q 1:** What is population explosion? What are the reasons for population explosion? Explain.

**Q 2:** Write an essay on population explosion in India.

**Q 3:** "Population growth is a global problem." Elucidate the statement. Suggest some measures to check population growth.

**Q 4:** What are the problems created by over population? Suggest remedial measures.

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