

# POPULATION AND ECONOMIC DEVELOPMENT

## 31.1 INTRODUCTION

Population is the resource of labour force. The larger the size of population, the larger will be the labour force. Higher the rate of increase in population, the larger will be the potential labour force. Labour alone cannot produce anything. If other resources required for production are also available in sufficient quantity then a large labour force is a productive asset for a country. If other resources are not available in sufficient quantities then large labour force can become an obstruction to faster economic growth. Why do some countries particularly the developing countries, have fast growth rate of population? How does this fast growth rate of population affect the economic growth of these countries? These are the questions which are discussed in this lesson.

## 31.2 OBJECTIVES

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

- explain the meaning of the rate of growth of population ;
- explain how economic growth affects the rate of growth of population
- explain the effects of high growth rate of population in developing countries on human resources, natural resources and capital formation;

## 31.3 GROWTH RATE OF POPULATION

All countries at any time have some people living there. This number constitutes the size of population of that country at that time. This number, however is continuously changing through

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births, death and immigration. Increase in the number of people in a country during a period of time is called the growth of population. This growth is mainly due to the excess of births over deaths as immigration in the present day world is an insignificant contributor to the increase in population in a country.

The rate of growth of population during a period is measured as the ratio of increase in population during a period to the total population at the beginning of the period. The rate of growth of population primarily depends upon the birth rate (measured as births/total population  $\times 1000$ ). The difference between birth rate and death rate during a year is called the rate of growth of population in that year per 1000. The rate of growth of population can also be expressed in percentage. For example, according to 1991 census of population in India the annual birth rate for the period 1981-91 was 32.5 per thousand and the annual death rate was 11.4 per thousand. So during this decade the annual rate of growth of population per thousand was 21.1. Expressed in percentage, it was 2.11 per cent per annum.

### **31.4 RELATIONSHIP BETWEEN ECONOMIC GROWTH AND GROWTH RATE OF POPULATION**

There is a two-way relationship between rate of growth of population of a country and its economic growth. Population growth of a country is affected by its economic growth and population growth also affects economic growth. We shall now study this interrelationship.

#### **(a) Effect of economic growth on the growth rate of population**

Studies of a large number of economies of the world have shown that in the underdeveloped economies the birth rate and death rate both are high. So the gap between birth rate and death rate is low. Hence the rate of growth of population in such economies is slow. In these economies the income levels are low resulting in malnutrition and undernourishment. Medical and sanitation facilities are nearly non-existent. Even safe drinking water is not available for a very large part of the population. The death rate, therefore, tends to be very high in these economies. Birth rate in these economies is also very high largely because of orthodox attitudes towards family and child, lack of literacy and high infant mortality rate. So it can be said that an underdeveloped economy is marked by high birth rate and death rate and slow growth of population.

As economic growth takes place, the income levels start rising leading to improvement in standard of living. Medical and sanitation facilities improve. Some diseases are eradicated. All these have a direct effect on death rate. It starts falling rapidly. During this phase the birth rate also starts declining but at a slower rate. In fact the rate of decline in birth rate is slower than the rate of decline in death rate. The slower decline in birth rate is due to the rigidity in the attitudes towards birth and life and the religious beliefs. Change in these attitudes and beliefs can only be gradual at least initially. As a result of this the difference between birth rate and death rate increase. So during this phase i.e. when the economy is developing the rate of growth of population increases and it starts accelerating. For example, rate of growth of population in India started increasing since 1921. It accelerated since 1951.

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As economic growth gains momentum, some noticeable changes take place in the economy. There is a further improvement in the level of income, nutritional levels. There are more and improved public health and sanitation facilities. Literacy levels rise. Standard of living improves. Orthodox traditional attitudes give way to scientific attitudes. There is a greater acceptance of small family norm. All these changes affect both the death rate as well as the birth rate. Death rate cannot fall below a certain level as all those who are born must die. During this phase of economic growth the decline in birth rate is faster. As a result of death rate stagnating at a low level and faster decline in birth rate, the gap between birth rate and death rate is again very small. In other words the rate of growth of population is very slow. All the developed countries of the world have low rate of growth of population.

India is passing through the second phase. The birth rate is high and declining slowly. The death rate is declining fast. As a result it is experiencing a high rate of growth of population.

### POINTS TO REMEMBER

- Every country has to pass through three stages of growth of population. When underdeveloped, the birth rate and death rate both being high, the rate of growth of population is slow.
- As economic growth takes place, death rate declines at a faster rate than the rate of decline in birth rate. So population starts growing at a faster rate.
- When the economy is developed then the decline in birth rate is faster and continuous; whereas the decline in death rate is slow and it stops declining after reaching a certain low level. So during this phase the birth rate and death rate both are low and so population grows at a very slow rate.

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### INTEXT QUESTIONS 31.1

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State whether the following statements are true or false.

- (i) Rate of growth of population depends on the birth rate.
  - (ii) In an underdeveloped economy the population grows at a very fast rate.
  - (iii) A developing economy experiences high rate of growth of population.
  - (iv) Both the birth rate and the death rate in a country can be zero.
  - (v) Developed countries have low birth rate, low death rate and low rate of growth of population.
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### 31.4(b) Effect of growth rate of population on economic growth

As stated earlier developing countries of the world are experiencing high rate of growth of population. In this section we will study the impact of high rate of growth of population on economic growth of these countries.

The effects of high rate of growth of population on economic growth of developing countries

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can best be analysed by studying its effects on the resources of these countries. The resources of a country can be divided into (1) human resources, (2) natural resources and (3) capital formation i.e. man-made resources.

### **1. Effects on Human Resources**

Population of a country constitutes human resources of that country. Large size of population and its fast growth in developing countries like India provides a large human resource base and a very large increase in it takes place every year. The large human resource is the source of large potential labour force which can be both a source of strength as well as a source of weakness. If fully and efficiently utilised, it can be massive productive asset for the country. If underutilised, it becomes a constraint on the country's progress. Labour alone cannot produce anything. For production, besides labour other resources are also required such as natural resources and capital. For absorbing the large and fast increasing labour force more and more of other resources are needed.

In developing countries like India, there is already a shortage of capital and even the natural resources are getting scarcer with the fast increasing population. These countries are not able to utilise even their existing labour force as is evident from the large level of unemployment. Furthermore, every year there is a large addition to the labour force due to high growth rate of population. So the number of unemployment also increases and this problem becomes more acute. As stated earlier, if the labour force is not fully utilized, it becomes a liability. It only consumes and does not contribute to production.

The high rate of population in developing economies also creates problems in the process of improving the quality of human resource. The quality of human resource is poor in these economies. Modern economies are becoming more and more knowledge intensive and capital intensive. So the modern production techniques require highly skilled labour force. In developing economies the literacy level is very low. There is widespread illiteracy. Due to the large size of population, huge resources are needed for removing illiteracy and for skill formations. This problem becomes more serious because of the fast growth rate of population.

Thus, the developing countries due to the scarcity of capital and other resources are not able to fully utilise their labour force and the quality of human resource is poor. The problem becomes more serious because of the fast rate of growth of population. Hence, the large and fast increasing labour force creates problems in the growth of the economy and in the process of improvement in quality of human resource.

### **2. Effects on Natural Resources**

Natural resources comprise land surface, minerals, forests and water etc. We will now examine the effects of high rate of growth of population in developing countries on each one of these important natural resources.

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**(i) Effects on Agricultural Land :**

Total land area of a country is fixed. A large part of the land area of a country is used for agricultural activities. As the population increases at a fast rate, larger and larger area of land is needed for dwelling units, roads, factories etc. So the area of land available for agricultural activities cannot increase or at best it can be increased only marginally by making uncultivable land, cultivable. In any case the land area available for agricultural activities per head is bound to decline. The increasing pressure of labour on land due to high growth rate of population creates many problems. It results in subdivision and fragmentation of land holdings. For example in India in 1990-91 about 59% of the agricultural holdings were of less than one hectare. The very small size of holdings results in wastage of land and capital and the productivity of land is adversely affected. The farmers having such small holdings will hardly be able to make their both ends meet and will not have resources for any investment.

Supply of land for agriculture is not increasing or at best increasing insignificantly. Land is used more intensively. Even land meant for grazing pastures, open spaces etc. are being brought under cultivation. This is done to meet the increasing requirements of food etc. of the fast growing population. This results in degradation of land.

The increasing pressure on agricultural land results in disguised unemployment. The fast growing population on the one hand and lack of work opportunities outside agriculture in rural areas on the other hand results in more people, than required, working in agriculture. Furthermore, when people shift from rural to urban areas in search of work, it creates many other problems. Increasing urbanization starts swallowing larger and larger area of agricultural land. This happens because more and more land is used for constructing dwelling houses, roads etc. Fast urbanization also creates many other problems such as congestion, slums, insanitation, pollution etc. All these problems adversely affect economic growth of the developing countries.

**(ii) Effects on Forests :**

Forests contribute in a big way to the economic growth of a country. They help in maintaining the ecological balance, besides conservation of soil. They are source of a large variety of raw materials etc. Fast increase in population results in deforestation. Ever increasing demand of agricultural land, fuel wood dwellings etc. results in felling of trees and clearing of forest areas. The process of deforestation as a result of fast growing population causes soil erosion and deprives the economy of the large number of raw materials.

Thus deforestation caused by high growth rate of population adversely affects the economic growth of the developing economies.

**(iii) Effects on Minerals :**

Minerals also play a very important role in the economic growth of a country. The known mineral resources in any economy are limited. They are used as raw materials. Some of them such as coal, oil etc. are important sources of energy. Minerals are a non-renewable

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resource. A fast growth rate of population and its large size in developing countries results in greater exploitation of this resource.

This results in depletion of known mineral resources. And this will obviously affect adversely the future economic growth of the developing economies.

### **3. Effects on Capital Formation (Man-made Resources)**

Capital plays a very important role in economic growth. The stock of capital in a country determines its pace of economic growth. In developing countries fast growth rate of population results in rapid increase in the needs for consumption. Requirement of food, water, clothing, housing, transport, education, electricity, medical facilities and almost of all necessities increases at a fast rate even at their low level of consumption. So a large part of resources for investment that the developing economies are able to generate are eaten away by their fast increasing population. In other words the high growth rate of population reduces the supply of these resources for raising the per capita income and quality of life of the people in developing economies. All this has an adverse impact on the growth of these economies. For example, in India the rate of increase in national income since Independence has been higher than the rate of increase in per capita income. From 1951 to 1996 national income increased at an average rate of 4%, but the per capita income during the same period showed an average increase of only 1.8%. During the Eighth plan period i.e. 1992-1997 the national income increased by 5.6% whereas per capita income increased by 3.8%. This shows that a part of the economic growth was eaten away by the fast rising population and this part did not contribute to increasing the income levels of the people.

Thus high growth rate of population adversely affects capital formation in developing economies. More resources are used for meeting the fast increasing consumption needs. This leaves less resources for increasing productive capacity of the economy. This adversely affects the future growth rate of these economies.

The above analysis shows that the high rate of growth of population has slowed down the pace of economic growth in the developing economies. Had population been increasing at a slower rate, the rate of economic growth of these economies would have been much higher and there would have been much more improvement in income levels.

Thus economic growth affects growth rate of population and rate of growth of population affects economic growth. The developing economies are in a dilemma. As they grow, their population grows at a faster rate which adversely affects their growth process. Once they are able to check the fast growth rate of population, the economic growth would be much faster and their quality of life much improved.

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### POINTS TO REMEMBER

- High rate of growth of population affects the economic growth of developing countries through its effects on the resources of these countries.
- The developing countries already have a large labour force which remains under utilised due to lack of capital. The fast increasing population makes the task of absorbing the labour force in productive activities all the more difficult. So the large increase in population is more of a liability than an asset in these economies.
- Large size of population and its fast growth puts pressure on agricultural land leading to sub-division and fragmentation of land holdings. It also results in degradation of land, disguised unemployment. It also results in urbanisation which creates many other problems.
- Increasing demand for agricultural land, firewood, dwelling units etc. results in deforestation which adversely affects soil fertility, causes floods and affects the climate.
- Fast growth rate of population results in greater exploitation of mineral resources resulting in their depletion. This will affect future growth rate.
- Large size of population and its fast rate of growth increases the consumption needs. This increases consumption expenditure. So saving rate and capital formation does not increase much. A part of the resources mobilised by such economies are eaten away by the fast growing population.

### INTEXT QUESTIONS 31.2

State whether the following statements are true or false:

- (i) High rate of growth of population in developing countries increases capital formation.
- (ii) Large size of population in developing economies is a massive productive asset.
- (iii) Developing countries need a high rate of growth in their population in order to fully utilise their natural resources.
- (iv) Fast growth rate of population increases the demand for consumer goods and thus helps in faster economic growth.
- (v) Large size of population helps in better utilisation of forests.
- (vi) Because of fast growth of population developing economies have to grow even for maintaining their present income levels.

### TERMINAL EXERCISE

1. What do you understand by the growth rate of population?
2. Explain how economic growth affects growth rate of population.
3. Explain the effects of high growth rate of population in developing countries on human and natural resources.
4. Explain the effects of rapid rate of growth of population in India on capital formation.

## ANSWERS

### Intext Questions 31.1

- (i) False (ii) False (iii) True (iv) False (v) True

### Intext Questions 31.2

- (i) False (ii) False (iii) False (iv) False (v) False (vi) True

### Terminal Exercise

1. Read section 31.3
2. Read section 31.4 a
3. Read section 31.4 b(1) & (2)
4. Read section 31.4 b(3)