UG EC S6 -01 (DSC/DSE)

FOUR YEAR BACHELOR'S DEGREE COURSE

(CBCS in Accordance with NEP 2020)

SEMESTER - VI

DEVELOPMENT ECONOMICS
ECONOMICS

Surya Kumar Bhuyan School of Social Sciences

KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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COURSE INTRODUCTION :

Communication plays an important role in every industry. Media is an industry where the use of language skills is vital to disseminate an information effectively. English being a common language, is understood, read and written by a majority of people, hence fluency in English would help you in excelling in any field in almost all parts of the world. This course will provide you the basic technical skills required to use the English language in media and communications. It will help you in developing your creative practice in anchoring or screenwriting or in print media.

While going through a unit, you will notice some along-side boxes, which have been included to help you know some of the difficult, unseen terms. Some ‘‘ACTIVITY’’ (s) have been included to help you apply your own thoughts. Again, we have included some relevant concepts in ‘‘LET US KNOW’’ along with the text. And, at the end of each section, you will get ‘‘CHECK YOUR PROGRESS’’ questions. These have been designed to self-check your progress of study. It will be better if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with ‘‘ANSWERS TO CHECK YOUR PROGRESS’’ given at the end of each unit.

NTRODUCTION

Unit 1 deals with the introductory concepts of economic development. Unit 2 deals with the Gender Issues of Development. It explains in details about the Gender Related Development Index (GDI) and Gender Empowerment Index (GEI). Unit 3 discusses the issues faced by developing countries. Units 4 and 5 discuss the Development Theories of Adam Smith, Ricardo, Lewis and Rostow. The concepts of Balanced and Unbalanced Growth are explained in Unit 6. Unit 7 discusses the role agriculture plays in the economic development of a country. Here the aspects of Green Revolution and Modernisation of Agriculture are discussed. Unit 8 studies the role of Industries in the development of a developing country. *Unit 9 is Population and Economic Development. Here the Malthusian Theory of Population is explained in details along with the Theory of Demographic Transition. Unit 10 discusses the Role of Capital Formation in developing countries. It also discusses why the rate of capital formation is low in developing countries. Unit 11 on Technical Change and Economic Development discusses the relative importance of labour-intensive and capital-intensive methods of technical change and their applicability to developing countries. Unit 12 explains the role of the State in Economic Development. The Problems and Challenges of the State in Economic Development is also studied here along with the relative role of the Public and Private Sectors. Unit 13 on Manpower Planning and Economic Development brings in the concepts of manpower planning along with a discussion on manpower planning in India. Unit 14 discusses the different issues of Human Resource Development. The significance, objectives and indicators of Human Resource Development are explained in cdetails. Unit 15 discusses the Millenium Development Goals and gives a critical analysis of the MDGs. The achievements and failures of MDGs are also discussed.*

While going through a unit, you will notice some along-side boxes, which have been included to help you to know some of the difficult, unseen terms. Again, we have included some relevant concepts in “LET US KNOW” along with the text. And, at the end of each section, you will get “CHECK YOUR PROGRESS” questions. These have been designed to self-check your progress of study. It will be better if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with “ANSWERS TO CHECK YOUR PROGRESS” given at the end of each unit.

UNIT- 1 : CONCEPTS OF ECONOMIC DEVELOPMENT

UNIT STRUCTURE

1.1 Learning Objectives

1.2 Introduction

1.3 Economic Growth

1.3.1 Meaning and Definition

1.3.2 Economic Growth Rate

1.3.3 Determinants of Economic Growth

1.4: Economic Development

1.4.1 Meaning and Definition

1.4.2 Features of Economic Development

1.5 Difference between Economic Growth and Economic Development

1.6 Development and Underdevelopment

1.6.1 Classification of Economies

1.6.2 Definition of an Underdeveloped Economy

1.6.3 Characteristics of Undeveloped or Developing Economies

1.6.4 Definition of a Developed Economy

1.6.5 Characteristics of Developed Economies

1.7 Measurement of Economic Development

1.7.1 Per Capita Income

1.7.2 Human Development Index

1.8 Let us sum up

1.9 Further Reading

1.10 Answers to Check Your Progress

1.11 Model Questions

1.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- know what is Development Economics
- define the key concepts of Growth and Development
- identify the differences between Growth and Development

- identify and illustrate the characteristics of Developed and Underdeveloped Economies
- understand how Economic Development is measured
- learn about the different measures of Economic Development
- know the importance of HDI as a measure of Economic Development

1.2 INTRODUCTION

Development economics is that branch of economics which focuses on improving the economies of developing countries. It involves the creation of theories and methods that helps in the determination of policies and practices which can be implemented at either the domestic or international level. Development economics seeks to determine how poor countries can be transformed into prosperous ones. It considers that strategies for transforming the developing economies should be unique because the social and political backgrounds of such countries are different from developed ones. To promote economic growth, development economics emphasizes on improving the factors such as health, education, working conditions as well as market conditions in developing countries.

In earlier days, right from mercantilism, the focus was mainly on the developmental aspects of western developed economies. However, after the great depression of thirties and the Second World War, economists started devoting attention towards analyzing the problems of underdeveloped countries and formulating theories and models of development and growth. During this time most of the Asian and African countries got independence from colonial rulers. But these countries were in extreme poverty and backwardness due to mainly colonial exploitation, devastation by war, war-induced inflation. Since then economists have studied the problem of accelerating development in underdeveloped countries and of maintaining development in developed countries of the world.

As stated, economic development is the primary objective of all the countries of the world. Every country tries to raise the level of income, well-being and capabilities of its citizens. Every investment made, policies framed and undertaken is an endeavor to achieve this goal. There are several criteria to measure economic development; however, till date, there is no universally acceptable index of economic development.

1.3 ECONOMIC GROWTH

Today every economy is concerned with economic growth. Every country, whether advanced or backward, would like to maintain an adequate level of its annual growth rate. The underdeveloped countries have to aim at a higher rate of growth as compared to developed countries so as to provide rising standard of living and increasing employment opportunities for their people.

1.3.1 Meaning and Definition

Economic growth means an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. It refers to sustained increase in country's output of goods and services or more precisely product per capita. Economic growth shows the increase in the country's aggregate productivity. A growing economy can produce more goods and provide more services than before. For Kindleberger, "Economic growth means more output." Similarly, Prof. Maddison is of the view that "The rising income level is generally called economic growth in rich countries."

The economic growth rate provides insight into the general direction and magnitude of growth for the overall economy of a country. Lower economic growth rates are seen in most highly industrialized countries as their base of economic activities are already large. For example, in the United States the long-term economic growth rate is around 2 to 5%. Fast-growing economies, particularly India and China, on the other hand, experience growth rates as high as 10 percent although this rate of growth is not likely to be sustainable over long period.

CHECK YOUR PROGRESS

Q.1: State whether True(T) or False (F)

(i) A growing economy cannot produce more goods than before. (T/ F)

(ii) Human resource includes both quantity and quality of workforce. (T/ F)

(iii) To sustain economic growth domestic demand should be raised. (T/ F)

Q.2: State why growth rate is lower in industrially developed economies than developing economies. (Answer in 50 words)

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1.4 ECONOMIC DEVELOPMENT

Economic growth measures only the change in the level of output in an economy. It is only quantitative. Economic growth fails to indicate the qualitative changes. If a country achieves higher growth rate but at the same time inequality also rises, then the country cannot be said to be in a good state. To measure the qualitative changes the term economic development is used.

1.4.1 Meaning and Definition

Economic development means the sustained increase in the standard of living of a country's population. It refers to the process by which a country improves the economic, political and social well-being of its people. Economic development is related to increase in output of an economy coupled with improvement in social and political welfare of its people. Economic development is typically measured in terms of jobs and income, but it also includes improvements in human development, education, health, choice and environmental sustainability. The classical economists defined economic development based on increase in national income and real per capita income. On the other hand, modern economists define it on the basis of economic welfare. According to Prof. Meier and Baldwin, "Economic development is a process whereby any economy's real national income increases over a long period of time." In the words of Salvatore, "Economic development has been defined as the process whereby a country's real per capita gross national product (GNP) or income increases over a sustained period of time through continuing increase in per capita productivity."

1.4.2 Features of Economic Development

The main features of economic development are—

- Economic development is a dynamic process.
- Economic development is a long term phenomenon.
- Economic development refers to the quantitative as well as qualitative improvement in the development variables.
- Distributive justice i.e, fair and equitable distribution of wealth is a necessary condition for economic development.
- Human approach is also an important feature of the modern economic development.

CHECK YOUR PROGRESS

Q.3: State whether True(T) or False (F)

i. Economic development measures only the increase in output of an economy. (T/ F)

ii. Modern economists define economic development on the basis of welfare. (T/ F)

iii. Economic development is a static process. (T/ F)

Q.4: Define economic development. (Answer within 40 words)

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1.5 DIFFERENCE BETWEEN ECONOMIC GROWTH AND ECONOMIC DEVELOPMENT

For a long time, the terms economic development and economic growth have been used as synonym. But Prof. Schumpeter in 1911 has made a clear distinction between the two in his book "The Theory of Economic Development". Economic development is a broader concept than economic growth. Development reflects social and economic progress and requires economic growth. In other words, economic development includes economic growth. Growth is a vital and necessary condition for development, but it is not a sufficient condition as it cannot guarantee development. Economic growth can be distinguished from economic development on the following basis —

CHECK YOUR PROGRESS

Q.5: State whether True(T) or False (F)

i. Life expectancy is an indicator of economic growth. (T/ F)

ii. Growth measures the standard of living. (T/ F)

iii. Economic development is a broader concept than economic growth. (T/ F)

Q.6: Does higher economic growth ensure economic development? Discuss. (Answer in 40 words)

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Q.7: What are the basic differences between economic growth and economic development? (Answer in 40 words)

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1.6 DEVELOPMENT AND UNDERDEVELOPMENT

All countries in the world are not equally developed. Some are more developed and advanced than others. Accordingly economies are classified into developed economies and underdeveloped economies. Underdeveloped economies are also known as developing countries or less developed countries.

1.6.1 Classification of Economies

The most common criterion used to determine whether an economy is developed or underdeveloped is per capita GDP. The World Bank classifies the economies of the world into three groups based on their per capita income (PCI).

- Low income economies
- Middle income economies
- High income economies.

The low income economies are generally described as developing economies, while high income economies are called developed economies. As of July 2015, the low income economies were those which had per capita income of $ 1,045 or less, Countries with per capita income more than $1,045 but less than $12,136 constitute the middle income countries. The developed or high-income countries which include the United States, U.K., Australia, Canada, France, Japan, and Germany had per capita income of $12,136 and above.

1.6.2 Definition of Underdeveloped Economies

The term underdevelopment refers to that state of an economy where levels of living of masses are extremely low due to very low levels of per capita income resulting from low levels of productivity and high growth rates of population. Underdeveloped countries lag behind in industrialization, education, standard of living, healthcare, life expectancy and other technological and cultural norms in comparison to developed countries. According to the United Nations, “an underdeveloped country is one which has a real per capita income that is lower in relation to the real per capita income of the USA, Canada, Australia and Western Europe. Professor Ragnar Nurkse also gave a definition of an under-developed country. According to him, “under-developed countries are those which compared

with the advanced countries are under- equipped with capital in relation to their population and natural resources."

1.6.3 Characteristics of Undeveloped or Developing Economies

Following are the basic features commonly found in the developing countries—

- **Low per capita income**: The level of income as measured by per capita real GNP is very low in underdeveloped countries in comparison to developed countries.
- **Widespread Poverty:** In the developing countries the standard of living is very poor. Basic needs like food, clothing, housing, education and medical facilities are not available. People lead miserable lives.
- **Low industrialization:** The process of industrialization is very low in developing countries. The main reasons behind low industrialization are lack of capital and dearth of entrepreneurial skills.
- **Dependence on Agriculture:** The majority of population of such countries is engaged in agriculture. But unfortunately agriculture is in a backward stage, and the average land holding and per acre yield are low.
- **Population Pressure:** The rate of population growth is very high in comparison to the rate of economic growth. The birth rate still remains high.
- **Unemployment:** In the less developed countries rate of unemployment is very high. There also exists disguised unemployment.
- **Lack of Technology:** The state of technology is very low in the developing countries. Use of low level technology in various sectors results in higher cost and low rate of production.
- **Limited Home Market:** In less developed countries, the purchasing power of the people is low. Producers are unable to increase the supply of various goods due to low demand. The limited home market becomes an obstacle in economic development.
- **Low rate of capital formation**: Capital deficiency is an important characteristic of an underdeveloped economy. Capital formation or investment is low in such countries. Low capital formation leads to low productivity which leads to low incomes and the low income leads to low savings, and then low savings leads to low rate of capital formation. Thus there exists the vicious circle of poverty.

10. **Lack of Infrastructure:** There are inadequate infrastructural facilities in the developing countries. This becomes an obstacle in bringing foreign investments.

1.6.4 Definition of a Developed Economy

A developed economy refers to a country with a relatively high level of economic growth and security. According to Kofi Annan, former Secretary General of the United Nations, "A developed country is one that allows all its citizens to enjoy a free and healthy life in a safe environment."

1.6.5 Characteristics of a Developed Economy

Some of the common characteristics of developed economies are—

- **Dominance of Industrial Sector:** Industrial and service sectors dominate the economy. Agriculture remains a subsidiary occupation. The major part of national income is obtained through industrial production.
- **Higher life expectancy:** In the developed countries people are expected to live a longer life because they have good access to food and medical facilities.
- **High level of literacy:** The literacy rate is almost universal in these countries. In such a country, government spends a large percentage of the country's GDP in education.
- **A well trained workforce:** A pool of well trained workforce is another characteristic of developed countries. Through education and training labour are made skilled enough which is crucial for development.
- **Widespread infrastructure:** Infrastructural facilities are good enough in these countries. Availability of infrastructures makes it easy for investments.
- **Export of high value added goods:** Developed countries are mainly producers and exporters of high valued industrial products. They are also providers of services.

CHECK YOUR PROGRESS

Q.8: What do you mean by an underdeveloped country? (Answer in 40 words)

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Q.9: Write two features of a developed economy? (Answer in 40 words)

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1.7 MEASUREMENT OF ECONOMIC DEVELOPMENT

As mentioned above, it is not easy to define economic development precisely because over time different criteria have been used for its measurement. Economists like Prof. Simon Kuznets, Paul Albert, Meier and Baldwin considered national income as an index of development; whereas Prof. Benjamin Higgins, Arthur Lewis, Vinear and Harvey Leibenstein favour the use of per capita output as an index of economic development. Economists like Coline Clark, Kindleberger, Hersick etc. consider economic welfare as the measure of economic development. We shall discuss here two indicators, viz., Per Capita Income as an Index of Development and Human Development Index.

1.7.1 Per Capita Income:

Economic development becomes meaningless if it does not lead to an improvement in the standard of living of the common masses. Economists like Harvey Leibenstein, Rostow, Baran, Buchanan favour the use of per capita income as an index of economic development. The aim of economic development is to raise the living standard of the people which can happen only through a rise in consumption level. And consumption level can increase only through an increase in per capita income. This can happen only if the national income (NI) of a country increases faster than the increase in population.

Increase in per capita income is a good measure of economic development as increase in per capita income leads to increase in welfare of the people.

However, use of per capita income as a measure of economic development has been criticized by Jacob Viner, Kuznets etc. Meier and Baldwin have criticized it on the ground that if the increase in national income of a country is offset by the increase in population it would appear as if no development has taken place. Similarly, if the national income in a country has not gone up but population has declined due to epidemic or war, it would appear as if economic development has taken place. This method also does not talk about the distribution of income among different sections of the society. Moreover, economic development/growth

is a multi dimensional concept which involves not only increase in money income but also improvement in social activities like education, public health, greater leisure, etc. These changes cannot be measured by changes in per capita income.

CHECK YOUR PROGRESS

Q10: Name two economists who considered national income as a measure of economic development.

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Q11: Why is measurement of development by per capita income considered to be a good measure of economic development? (Answer in around 50 words)

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1.7.2 The Human Development Index

The Human Development Index (HDI) is one of the most ambitious attempts to analyse the comparative status of socio-economic development systematically by the United Nations Development Program (UNDP) in its annual series of Human Development Reports. HDI as a means of measuring economic development was introduced in 1990 in three broad areas – (i) longevity-as measured by life expectancy at birth, (ii) knowledge –as measured by a weighted average of adult literacy (two-thirds) and mean years of schooling (one-third), and (iii) standard of living –as measured by real per capita gross domestic product adjusted for the differing purchasing power parity of each country's currency to reflect cost of living and for assumption of diminishing marginal utility of income. The HDI tracks changes in the level of development of countries over time. Using these three measures and applying a formula to data for 177 countries, the HDI ranks countries [on a scale of zero (lowest/no development) to one (highest/complete development] into three groups: low human development (0.0 to 0.499), medium human development (0.50 to 0.799), and high human development (0.80 to 1.00).

The HDI is a very useful means of comparing the level of development of countries. Gross National Product (GNP) or Gross Domestic Product (GDP) per capita alone is too narrow an indicator of economic development and it fails to indicate other qualitative aspects of development – such as enrollment in schools and longevity. The HDI has thus made a major contribution to improving our

understanding of what constitutes development. By combining social and economic data, the HDI allows nations to take a broader measure of their development performance, both relatively and absolutely, and to focus their economic and social policies more directly on areas in need of improvement.

Despite the widespread use of the HDI as a measure of development, it has been criticized on the ground that development is mainly about freedom, but the index does not directly measure this. Moreover, this measure of economic development does not say anything about the distribution of income. Another criticism against the HDI being an index of development is that it excludes many aspects of economic and social life that can hinder development like crime, corruption, poverty, deprivation and negative externalities.

LET US KNOW

- India was ranked 131 in the 2016 Human Development Index (HDI) among the 188 countries. India scored 0.624 and was placed in medium human development category.
- The top three countries are Norway (0.949 score), Australia (0.939 score) and Switzerland (0.939 score).
- Amongst the SAARC countries, Sri Lanka (73) and Maldives (105) were placed in "high human development" category, followed by India (131), Bhutan (132), Bangladesh (139), Nepal (144), Pakistan (147) and Afghanistan (169).
- India ranks lowest among BRICS nations. Russia (49), Brazil (79), China (90), South Africa (119) and India (131).

1. 8 LET US SUM UP

- **Development economics** is that branch of economics which focuses on improving the economies of developing countries. It involves the creation of theories and methods that help in the determination of policies and practices which can be implemented at either the domestic or the international level.
- **Economic growth** means an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. It refers to sustained increase in country's output of goods and services or more precisely product per capita.
- **Economic development** refers to the process by which a country improves the economic, political and social well-being of its people. It is typically measured in

terms of jobs and income, but it also includes improvements in human development, education, health, choice and environmental sustainability.

- The economies of the world are classified into three groups based on their PCI— Low income, Middle income, High income. The low income economies are those which has per capita income of $1,045 or less, Countries with per capita income more than $1,045 but less than $12,136 constituted the middle income countries. The developed or high-income countries have per capita income of $12,136 and above.
- **Underdeveloped countries** are characterized by low PCI, widespread poverty, heavy population pressure, dependence on agriculture, lack of industrialization, lack of infrastructural facilities etc.
- **Developed countries** are characterized by dominance of industrial sector, higher life expectancy, high level of literacy, well trained labour force, export of high value added goods etc.
- Economic development becomes meaningless if it does not lead to an improvement in the standard of living of the common masses. The aim of economic development is to raise the living standard of the people which can happen only through a rise in consumption level. And consumption level can increase only through an increase in per capita income. This can happen only if the national income (NI) of a country increases faster than the increase in population.
- HDI as a means of measuring economic development was introduced in 1990 in three broad areas – (i) longevity-as measured by life expectancy at birth, (ii) knowledge –as measured by a weighted average of adult literacy (two-thirds) and mean years of schooling (one-third), and (iii) standard of living –as measured by real per capita gross domestic product adjusted for the differing purchasing power parity of each country's currency to reflect cost of living and for assumption of diminishing marginal utility of income.

15.6 FURTHER READING

- Lekhi, R. K. & Aarti Nayar (2005). Development and Environmental Economics. New Delhi: Kalyani Publishers
- Jhingan, M. L. (1992). Economics of Development and Planning, Delhi: Konark Publishers Pvt. Ltd.
- Ronald, G (2014). Development Economics, New York: Routledge

- Dreze, J. & Amartya Sen (2013). An Uncertain Glory: India and its Contradictions, UK: Penguin
- Ghatak, S. (2003). Introduction to Development Economics, New York: Routledge
- Ray, Debraj (1998). Development Economics, New Jursey: Princeton University Press

1.10 ANSWERS TO CHECK YOUR PROGRESS

Ans. To Q.1: i. False ii. True iii. True

Ans. To Q.2: The economic growth rate provides insight into the general direction and magnitude of growth for the overall economy of a country. Lower economic growth rates are seen in most highly industrialized countries as their base of economic activities are already large.

Ans. To Q.3: i. False ii. True iii. False

Ans. To Q.4: Economic development means the increase in output of an economy coupled with improvement in social and political welfare of its people. Economic development is a situation of increasing income and better job opportunities as well as improvements in human development, education, health, choice and environmental sustainability.

Ans. To Q.5: i. False ii. False iii. True

Ans. To Q.6: Growth is a vital and necessary condition for development, but it is not a sufficient condition. Higher economic growth is achieved when output increases. But if the increase in output is the result of labor exploitation, environmental degradation etc. then the society is in a worse situation. So higher growth rate cannot always guarantee development.

Ans. To Q.7: Economic development is a broader concept than economic growth. Economic growth measures only the increase in output over past in an economy. But economic development, besides increase in output, also measures the improvements in life expectancy rate, infant mortality rate, literacy rate, poverty rates etc.

Ans to Q.8: An underdeveloped country refers to an economy where levels of living of masses are extremely low due to very low levels of per capita income resulting from low levels of productivity and high growth rates of population. Underdeveloped countries lag behind in industrialization, education, standard of living, healthcare, life expectancy and other technological and cultural norms in comparison to developed countries.

Ans to Q.9: A developed country is mainly dominated by industrial and service sectors. Agriculture remains a subsidiary occupation. The major part of national income is obtained through industrial production. Such a country is mainly producer and exporter of high valued industrial products.

Ans to Q.10: Prof. Simon Kuznets and Paul Albert considered national income as an index of development.

Ans to Q.11: The aim of economic development is to raise the living standard of the people which can happen only through a rise in consumption level. And consumption level can increase only through an increase in per capita income. This can happen only if the national income (NI) of a country increases faster than the increase in population. Increase in per capita income is a good measure of economic development as increase in per capita income leads to increase in welfare of the people.

1.11 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q.1: What is development economics? What does it focus on?

Q.2: Write in brief what is economic growth. How is economic growth measured?

Q.3: "Growth is possible without development." Comment.

Q.4: What do you mean by development and underdevelopment?

Q.5: Name the criteria on which development is measured according to HDI.

Easy type Questions (Answer each question in about 300-500 words)

Q.1: Distinguish between economic growth and economic development.

Q.2: Explain the factors affecting economic growth in an underdeveloped country.

Q.3: Define economic development. What are the features of economic development?

Q.4: Discuss the characteristics of developing and developed countries.

Q.5: Can a country experience economic growth without development?

*** ***** ***

UNIT 2: GENDER ISSUES OF DEVELOPMENT

UNIT STRUCTURE

2.1 Learning Objectives

2.2 Introduction

2.3 Gender Issues of Development

- 2.3.1 Gender Related Development Index (GDI)
- 2.3.2 Gender Empowerment Index (GEI)

2.4 Let Us Sum Up

2.5 Further Reading

2.6 Answers to Check Your Progress

2.7 Model Questions

2.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- understand how gender is incorporated into the development process.
- learn about the different measures of gender development.
- explain the meaning of Gender Related Development Index (GDI) and Gender Empowerment Index (GEI).

2.2 INTRODUCTION

Economic development is the primary objective of all the countries of the world. Every nation tries to bring improvement in the income and standard of living of its citizens. In addition to all-round development, a nation also tries to bring in equality between men and women in the development process. Inequalities persist in many ways and are seen in the differences in the sex ratio, literacy rates, female infanticide, wage differentials, etc.The United Nations have successfully shifted the development debate from Income or Gross Domestic Product to a multi-dimensional measure in its Human Development Index (HDI). Further, in 1995, the UNDP introduced the Gender Related Development Index (GDI) and the Gender Empowerment Index (GEM) to access the gender dimensions of development.

2.3 GENDER ISSUES OF DEVELOPMENT

Gender Issues of Development can be broadly studied under two heads – Gender Related Development Index (GDI) and Gender Empowerment Index (GEM). There two concepts are discussed below.

2.3.1 Gender Related Development Index (GDI)

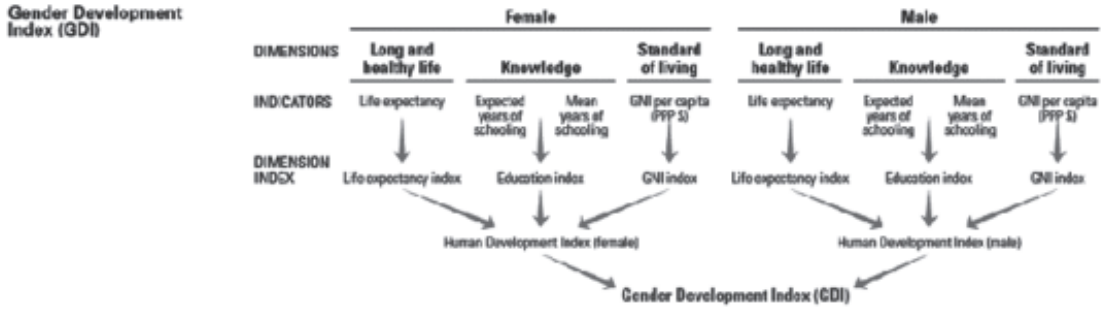
We have already discussed about the Human Development Index (HDI) in the previous unit. The HDI, for the first time incorporated aspects like life expectancy, educational attainment and income in measurement of economic development. However, the HDI missed out inequalities in opportunities between men and women. It is usually seen that because of gender bias in health care, mortality rates of women are high compared to men. The adverse **sex ratio** has led to the concept of '**missing women**'. Neglect of women is seen in aspects of allocation of health care facilities, access to education, food and nutrition.

The Gender Related Development Index (GDI) was introduced in the Human Development Report 1995 to measure achievements in the same dimensions and variables as the HDI, but also takes account of inequality between women and men. The greater the gender disparity in basic human development, the lower is a country's GDI compared with its HDI. With the advancement of economic progress as well as social progress, such clear bias against women should have declined. But this has not happened. In many households, women eat less and do not get proper medical attention. There is also a great difference in education. Women have no or little power over any household decision-making process. These women are also politically marginalised.

Human Development Report 2005 presents GDI for 140 countries. Norway topped the GDI rankings with Australia and Iceland coming second and third respectively.

GDI is now calculated for 160 countries. The aim of calculating the GDI was to add a gender sensitive dimension to the HDI. This GDI shows how much women are lagging behind their male counterparts and how much women need to catch up within each dimension of human development. It is useful for understanding the real gender gap in human development achievements and is informative to design policy tools to close the gap.

Gender Development Index (GDI)



Source: UNDP 2016

There has been much debate about the reliability and usefulness of the GDI in comparing countries and in promoting gender-sensitive development. However, it should be remembered that the GDI cannot be used as an independent measure of gender-gap; it can be used only in combination with the scores of the HDI.

The ranking of countries by GDI makes it clear that almost no society treats men and women equally. This is seen from the fact that the GDI value for most countries is lower than its HDI value. Also, gender inequality is found to be associated with human poverty. Countries with low GDI like Niger, Ethiopia, Mozambique also fall in the low HDI.

HDI AND GDI ESTIMATES FOR INDIA

The HDI and GDI scores for India at two points of time – 1996 and 2006 are presented in the following table (Table 2.1). The analysis of the table shows that

- In 1996, Kerala had the highest score in the country achieving scores of 0.736 on HDI and 0.721 on GDI. However, in 2006, Kerala was ranked 2nd on HDI and 3rd on GDI with scores of 0.764 and 0.745 respectively.
- Chandigarh was ranked 2nd on both HDI and GDI in 1996 but attained the highest HDI and GDI scores in 2006 at 0.784 and 0.763 respectively.
- The States with consistently low achievement on both HDI and GDI are Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan and Orissa.
- Bihar had the lowest rank among the 35 States/UTs on HDI and GDI in both 1996 and 2006.
- The largest gains in HDI scores over the decade were by Uttarakhand (0.165), Jharkhand (0.140), Daman & Diu (0.131), Dadra & Nagar Haveli (0.104) and Chhattisgarh and Arunachal Pradesh, (both by 0.098).
- Other States/UTs which increased their HDI scores by more than the All-India average of 0.075 points, included Madhya Pradesh, Manipur, Tripura, Sikkim, Himachal Pradesh, Tamil Nadu, Bihar and Orissa.
- The newly formed States of Uttarakhand, Jharkhand and Chhattisgarh achieved the largest gains on GDI and showed a marked improvement in performance on gender development over the decade. Between 1996 and 2006, these three States improved their GDI rank by 11, 5 and 1 places and GDI scores by 0.190, 0.154 and 0.108 respectively..

- None of the States/UTs has a GDI score less than 0.5 in 2006 except Bihar.
- The lowest score for HDI is 0.507 for Bihar in 2006 (from 0.430 in 1996). The lowest score for GDI is 0.479 for Bihar (from 0.399 in 1996).
- 14 States/UTs rank better on GDI than on HDI in 2006. These are Andhra Pradesh, Gujarat, Haryana, Maharashtra, Manipur, Meghalaya, Nagaland, Dadra & Nagar Haveli and Puducherry by 1 rank each, Arunachal Pradesh, Himachal Pradesh, Sikkim and Uttarakhand by 2 ranks each; and Mizoram by 3 ranks.
- 8 States/UTs rank lower on GDI than HDI in 2006. These are Jammu & Kashmir, Kerala and Delhi by 1 rank each; and West Bengal, Andaman & Nicobar Islands, Lakshadweep, Tripura and Daman & Diu with larger differences.
- 13 States/UTs maintain their ranks for HDI and GDI in 2006. These are Assam, Bihar, Goa, Karnataka, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, Chhattisgarh, Jharkhand and Chandigarh.

Table 2.1: GDI and HDI scores for states/Union Territories of India – 2006 and 1996

Sl No.	State/Union Territory	HDI 2006	GDI 2006	HDI 1996	GDI 1996
1	Andhra Pradesh	0.585	0.574	0.519	0.509
2	Arunachal Pradesh	0.647	0.642	0.549	0.544
3	Assam	0.595	0.585	0.543	0.523
4	Bihar	0.507	0.479	0.430	0.399
5	Goa	0.764	0.747	0.709	0.691
6	Gujarat	0.634	0.624	0.574	0.559
7	Haryana	0.643	0.632	0.570	0.555
8	Himachal Pradesh	0.667	0.664	0.590	0.585
9	Jammu & Kashmir	0.590	0.568	0.542	0.525
10	Karnataka	0.622	0.611	0.558	0.545
11	Kerela	0.764	0.745	0.736	0.721
12	Madhya Pradesh	0.529	0.516	0.433	0.417
13	Maharashtra	0.689	0.677	0.629	0.616
14	Manipur	0.702	0.699	0.610	0.600
15	Meghalaya	0.629	0.624	0.595	0.592
16	Manipur	0.688	0.687	0.618	0.612
17	Nagaland	0.700	0.697	0.653	0.626
18	Orissa	0.537	0.524	0.461	0.445
19	Punjab	0.668	0.663	0.621	0.605
20	Rajasthan	0.541	0.526	0.472	0.448

21	Sikkim	0.665	0.659	0.582	0.566
22	Tamil Nadu	0.666	0.655	0.589	0.576
23	Tripura	0.663	0.626	0.579	0.546
24	Uttar Pradesh	0.528	0.509	0.458	0.429
25	West Bengal	0.642	0.622	0.573	0.553
26	Chhattisgarh	0.549	0.542	0.451	0.434
27	Jharkhand	0.574	0.558	0.434	0.404
28	Uttarkhand	0.652	0.647	0.487	0.457
29	Andaman & Nicobar Islands	0.708	0.692	0.678	0.669
30	Chandigarh	0.784	0.763	0.723	0.706
31	Dadra & Nagar Haveli	0.677	0.673	0.573	0.569
32	Daman & Diu	0.700	0.677	0.569	0.543
33	Delhi	0.740	0.701	0.687	0.663
34	Lakshadweep	0.697	0.635	0.686	0.660
35	Puducherry	0.725	0.706	0.676	0.661
	All India	0.605	0.590	0.530	0.514

Source: Gendering Human Development Indices: Recasting the Gender Development Index and Gender Empowerment Measure for India, MINISTRY OF WOMEN AND CHILD DEVELOPMENT GOVERNMENT OF INDIA 2009.

CHECK YOUR PROGRESS

Q1: What is meant by GDI? (Answer in around 30 words)

.....

.....

Q2: Explain briefly the concept of 'missing women'. (Answer in around 30 words)

.....

.....

2.3.2 Gender Empowerment Index (GEM)

The Gender Empowerment Index (GEM) was also introduced by the Human Development Report, 1995. GEM is the United Nations Development Program's attempt to measure the extent of gender inequality across all countries, based on estimates of women's relative economic power, participations in high-paying positions with economic power, and access to professional and parliamentary

positions. Though it was introduced at the same time as the GDI, it differs from the GDI in the fact that the GDI is an indicator of gender inequality in basic capabilities. The GEM is more specialised of the two and is focussed on indicating the relative empowerment of women in a given country. The GEM made international comparison between countries possible in certain dimensions not done earlier.

The GEM was designed to measure 'whether women and men are able to actively participate in economic and political life and take part in decision-making' (UNDP, 1995, p 73) – Klasen 257.

Debate has now arisen about the effectiveness of the use of GEM or GDI in promoting gender-sensitive development. These measures are criticised on the ground that they are highly specialised and difficult to interpret; at times they also suffer from data gaps. The GEM is also criticised on the fact that it measures inequality only among the most educated and economically advantaged women. Women in grassroot organisations or at the local political level or in the informal sector are not reflected in the GEM. It is in these sectors where many women in developing countries work. Statistical data/information is not available on women's involvement in labour market or economic participation in developing countries. This measure is thus applicable to developed countries which do collect these statistics.

Gender Empowerment Index in India

The GEM for India in 2006 was 0.497 and 0.416 in 1996. The state level analysis is shown in the following table. (Table 2.2)

Table 2.2: Table 2.2: GEM and HDI scores for states/Union Territories of India – 2006 and 1996

Sl. No	State/Union Territory	HDI 2006	GEM 2006	HDI 1996	GEM 1996
1	Andhra Pradesh	0.585	0.547	0.519	0.467
2	Arunachal Pradesh	0.647	0.469	0.549	0.307
3	Assam	0.595	0.417	0.543	0.313
4	Bihar	0.507	0.379	0.430	0.278
5	Goa	0.764	0.551	0.709	0.494
6	Gujarat	0.634	0.485	0.574	0.409
7	Haryana	0.643	0.532	0.570	0.455
8	Himachal Pradesh	0.667	0.540	0.590	0.393
9	Jammu & Kashmir	0.590	0.355	0.542	0.326
10	Karnataka	0.622	0.526	0.558	0.422
11	Kerela	0.764	0.525	0.736	0.486
12	Madhya Pradesh	0.529	0.463	0.433	0.406

13	Maharashtra	0.689	0.516	0.629	0.438
14	Manipur	0.702	0.418	0.610	0.380
15	Meghalaya	0.629	0.346	0.595	0.231
16	Manipur	0.688	0.374	0.618	0.312
17	Nagaland	0.700	0.289	0.653	0.165
18	Orissa	0.537	0.393	0.461	0.329
19	Punjab	0.668	0.514	0.621	0.451
20	Rajasthan	0.541	0.442	0.472	0.403
21	Sikkim	0.665	0.447	0.582	0.300
22	Tamil Nadu	0.666	0.498	0.589	0.459
23	Tripura	0.663	0.382	0.579	0.335
24	Uttar Pradesh	0.528	0.452	0.458	0.334
25	West Bengal	0.642	0.435	0.573	0.350
26	Chhattisgarh	0.549	0.464	0.451	0.407
27	Jharkhand	0.574	0.435	0.434	0.278
28	Uttarkhand	0.652	0.466	0.487	0.334
29	Andaman & Nicobar Islands	0.708	0.560	0.678	0.437
30	Chandigarh	0.784	0.500	0.723	0.449
31	Dadra & Nagar Haveli	0.677	0.479	0.573	0.385
32	Daman & Diu	0.700	0.503	0.569	0.413
33	Delhi	0.740	0.564	0.687	0.479
34	Lakshadweep	0.697	0.463	0.686	0.418
35	Puducherry	0.725	0.558	0.676	0.406
	All India	0.605	0.497	0.530	0.416

Source: Gendering Human Development Indices: Recasting the Gender Development Index and Gender Empowerment Measure for India, MINISTRY OF WOMEN AND CHILD DEVELOPMENT GOVERNMENT OF INDIA 2009.

Table 2.2 shows that:

- There was overall improvement in performance on GEM over the decade, both in the All-India score and in the scores achieved by all the States/UTs. 14 States/UTs achieved GEM scores above 0.485 in 2006 while only 2 had achieved scores higher than this in 1996.
- The States/UTs that achieved GEM scores above 0.485 in both 1996 and 2006 were Goa and Kerala.
- NCT Delhi had the highest score for GEM for 2006. It moved from the 3rd rank in 1996 to the 1st rank in 2006 with a significant improvement in its GEM score.
- Nagaland had the lowest rank in both 2006 and 1996 with GEM scores of 0.289 and 0.165 respectively.
- The newly formed states of Jharkhand and Uttarakhand achieved large gains of 0.157 and 0.132 respectively on GEM scores and improved their GEM ranks by 6 positions each over the decade.

- Other States/UTs which increased their GEM scores by more than the All-India average of 0.081 points included Arunachal Pradesh, Puducherry, Himachal Pradesh, Sikkim, Andaman & Nicobar Islands, Nagaland, Dadra & Nagar Haveli, Meghalaya, Daman & Diu, Assam, Karnataka, West Bengal and NCT Delhi.
- States/UTs that improved their rank on GEM over the decade were Arunachal Pradesh, Himachal Pradesh and Puducherry by 13 and 14 ranks; Sikkim and Andaman and Nicobar Islands by 8 ranks each; and Jharkhand and Uttarakhand by 6 ranks each.
- The largest losers on GEM rank were Jammu & Kashmir, Kerala, Madhya Pradesh, Manipur, Rajasthan, Tamil Nadu, Tripura, Chandigarh and Lakshadweep with a fall of 5 to 9 positions over the decade.

CHECK YOUR PROGRESS

Q3: What is meant by GEM? (Answer in around 30 words)

.....

.....

Q4: When was the concept of GEM introduced in the Human Development Report? (Answer in around 20 words).

.....

.....

Q5: What is the basic difference between the GDI and the GEM?

.....

.....

2. 4 LET US SUM UP

- Every nation tries to bring improvement in the income and standard of living of its citizens. In addition to all-round development, a nation also tries to bring in equality between men and women in the development process.
- In 1995, the UNDP introduced the Gender Related Development Index (GDI) and the Gender Empowerment Index (GEM) to access the gender dimensions of development.
- Adverse **sex ratio** has led to the concept of '**missing women**'. Neglect of women is seen aspects of allocation of health care facilities, access to education, food and nutrition.

- The Gender Related Development Index (GDI) was introduced in the Human Development Report 1995 to measure achievements in the same dimensions and variables as the HDI, but also takes account of inequality between women and men. The greater the gender disparity in basic human development, the lower is a country's GDI compared with its HDI.
- GDI in now calculated for 160 countries.
- India's HDI value of 0.624 puts it in the 'medium human development' category.
- The Gender Empowerment Index (GEM) was also introduced by the Human Development Report, 1995. GEM is the United Nations Development Program's attempt to measure the extent of gender inequality across all countries.
- The GEM for India in 2006 was 0.497 and 0.416 in 1996.

2.5 FURTHER READING

- Lekhi, R. K. & Aarti Nayar (2005). Development and Environmental Economics. New Delhi: Kalyani Publishers
- Jhingan, M. L. (1992). Economics of Development and Planning, Delhi: Konark Publishers Pvt. Ltd.
- Ronald, G (2014). Development Economics, New York: Routledge
- Dreze, J. & Amartya Sen (2013). An Uncertain Glory: India and its Contradictions, UK: Penguin
- Ghatak, S. (2003). Introduction to Development Economics, New York: Routledge
- Ray, Debraj (1998). Development Economics, New Jursey: Princeton University Press
- Lekhi, R, K (2008): The Economics of Development and Planning, Kalyani Publishers
- Misra, S,K & V K Puri (2006): Economics of Development and Planning, Himalaya Publishing House

2.6 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q.1: The Gender Related Development Index (GDI) is an index to measure achievements in the same dimensions and variables as the HDI, i.e., life expectancy, educational attainment and income and also takes account of inequality between women and men. The greater the gender disparity in basic human development, the lower is a country's GDI compared with its HDI.

Ans to Q.2: Through sex-selective abortion, female foetuses are eliminated so that no female child is born. In 1998, for the world as a whole, shortfall of women relative to men exceeded 100 million. This is called missing women.

Ans to Q.3: The Gender Empowerment Index (GEM) is an index to measure the extent of gender inequality across all countries, based on estimates of women's relative economic power, participations in high-paying positions with economic power, and access to professional and parliamentary positions.

Ans to Q.4: The Gender Empowerment Index (GEM) was introduced in the Human Development Report, 1995. This Index focuses on the relative empowerment of women in a given country.

Ans to Q.5: The GDI is an indicator of gender inequality in basic capabilities viz., life expectancy, educational attainment, income and inequality between women and men. The GEM is more specialised of the two and is focussed on indicating the relative empowerment of women in a given country. The GEM has made international comparison between countries possible in certain dimensions not done earlier.

15.8 MODEL QUESTIONS

Short Questions:

Q.1: In what way is the HDI different from the GDI?

Q.2: What is the basic difference between the GDI and the GEM?

Q.3: Which state in India has the highest GDI Score?

Long Questions:

Q.1: Write a short note about the effectiveness of the use of GEM or GDI in promoting gender-sensitive development.

Q.2: Briefly discuss the GDI Index amongst the states of India.

Q.3: State the criticisms levelled against GEM and GDI?

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UNIT 3: ISSUES OF DEVELOPING COUNTRIES

UNIT STRUCTURE

3.1 Learning Objectives

3.2 Introduction

3.3 Structure of Developing Countries

3.4 Characteristics of Developing Countries

3.5 Let Us Sum Up

3.6 Further Reading

3.7 Answers to Check Your Progress

3.8 Model Questions

3.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- know the difference between developing and developed countries
- understand the structure of developing countries
- learn about the characteristics of developing countries

3.2 INTRODUCTION

The poor countries of the Third World are usually referred to as developing countries. They are also termed as 'underdeveloped' or 'backward' or 'developing' countries. All these countries have some general economic characteristics though these characteristics may not be of the same degree in all the countries. The common characteristics are general poverty of the masses, low income, unutilised natural resources, primary producing economy, deficiency of capital, dualistic economy, technological backwardness, etc. These developing countries also face a number of difficulties in the process of economic development. These obstacles emerge out of economic, social, political, religious and institutional factors. The major economic factors discouraging economic development of a nation include – the Vicious Circle of Poverty, Deficiency of Capital, Market Imperfections, International Forces, Outdated Technology and Low Agricultural Productivity; whereas the non economic factors include – Underdeveloped Human Resources, Political Instability, Socio-Cultural Constraints and Religious Factors.

3.3 STRUCTURE OF DEVELOPING COUNTRIES

To understand the structure of developing countries, you need to examine the seven critical components given below:

- **The Size of the Country (geographical area, population, income)**: The size of a country and the size of its population and its income level determine the development potential of a developing country. A large size usually has the advantage of diverse resource endowments, large potential market and a lesser dependence on foreign sources. Countries like China, India, Brazil, Indonesia, Nigeria etc have vast geographical area which means a greater development potential. Similarly, some smaller countries in the Middle East have managed to develop mostly because they are exceptionally rich in oil.
- **Historical and Colonial Background**: All developing countries do not have the same historical background. Most of these countries were at one time or the other, colonies of Western European countries, particularly Britain and France, and also of Belgium, the Netherlands, Germany, Portugal and Spain. These colonies have developed their economic structure and educational and social intuitions based on their colonial rulers. However, countries which have only now gained independence are more concerned about consolidating and evolving their own national and political structures than with promoting economic development.
- **Resource Endowments – both Physical and Human**: Economic development of a country is influenced to a great extent by its endowments of physical resources (land, minerals, forest, and other raw materials) and human resources (people and level of skill). If we compare the resource endowments of different countries, we will see that not all of them are equally gifted by nature. Latin America (which has immense reserves of minerals, natural gas and petroleum) and African countries (which are rich in lead, chrome, cobalt, uranium, bauxite, phosphate, tin, manganese, oil, etc) have greater development potential than other countries. Judged by these criteria, countries like Bhutan, Bangladesh, and Nepal are unfavourably placed. In case of human resource endowments, it is not only the number of people but also their skill levels, cultural outlook, attitude towards work, desire for self-improvement that play important roles.
- **Economic Planning and Relative Importance of Public and Private Sectors**: Most of the developing countries have mixed economic systems, with both public and private ownership and use of resources. However, for a considerable number

of years, China, Vietnam, Cuba, North Korea, Angola followed the socialist path of development. The private sector was almost non-existent in these countries. Some African and Asian countries in their effort to speed up their development have placed greater reliance on the public sector. However, now with greater stress on liberalisation (and failures of countries like Ghana, Senegal, Kenya, Tanzania), the role of the public sector has been minimised.

- **The Nature of its Occupational Structure**: Most of the developing countries are agrarian in character; but the occupational structures are different in all the countries. Agriculture, both subsistence and commercial, is the primary economic activity of the labour force, though the contribution to Gross National Product (GNP) might be different. In some countries like Nigeria and Indonesia, a larger proportion of labour are engaged in agriculture (around 45 percent) whereas it is around 10 percent in South Korea and Venezuela. Moreover, there are great differences between the structures of agrarian systems and patterns of land ownership.

  Developing countries also differ greatly in terms of the relative importance of the manufacturing and service sectors in their economies. Amongst these countries, India has one of the largest manufacturing and service sectors, but in relation to its enormous size of population, it is relatively less.

- **Degree of Dependence on External Economic and Political Forces**: Dependence of the developing countries on developed countries is multidimensional and its exact nature depends on the specific history of a country. The degree to which a country is dependent on foreign economic, social and political forces is related to its size, resource endowment and political history. Many countries cannot hope to develop unless they receive massive financial and technological aid. Most of the developing countries rely to a great extent on foreign trade with developed countries.

  Greater the dependence of a country on others, whether in respect of the importance of capital, technology, industrial raw materials or market of finished products, greater are the chances of underdevelopment . A country's ability to chart its own economic and social destiny is significantly affected by its degree of dependence on external forces.

- **The Distribution of Power and the Institutional and Political Structure:** It is not always the economic policies that determine the outcome of national approaches to critical development problems. It is the power structure and the interests of the dominant classes which ultimately decide the policy framework of the government. The political structure and the vested interests of different groups

– large landowners, urban industrialists, bankers, foreign manufacturers, the military, trade unionists determine the strategies to be followed and identify the bottlenecks to effective economic and social change.

CHECK YOUR PROGRESS

Q.1: What are the economic factors which hamper economic development? (Answer in around 20 words)

.....

.....

Q.2: In what way human resources help in economic development? (Answer in around 20 words)

.....

.....

Q.3: Briefly discuss how the degree of Dependence on External Economic and Political Forces effect development. (Answer in around 50 words)

.....

.....

3.4 CHARACTERISTICS OF DEVELOPING COUNTRIES

From the above discussion on the diverse structure of developing countries, you must have understood that no generalisations can be made about the characteristics of developing countries. However, all these countries do have some common features which distinguish them from developed countries. Some of them are discussed below.

- **Low Level of Income Per Capita**: This is one of the most defining characteristics of developing countries. The Gross National Income (GNI) per capita in these countries is very low, which results in low savings and low investments. This means that an average person in these countries do not earn enough to save or invest money. Qatar with a per capita income of $102,211 ranks first amongst all countries of the world according to IMF estimates, 2016. Luxemburg ranks 2nd with per capita income $79,785. USA has a Gross Domestic Product (GDP) per capita of $57,300. India lags behind 132 countries and its GDP per capita stands at $3,830 in 2016.
- **Large Income Inequalities**: In developing countries, apart from GNP per capita being lower than developed countries, income inequalities are also larger. According to the UNDP Report “Humanity Divided: Confronting Inequality in

Developing Countries", 2014, on average, income inequality increased by eleven per cent in developing countries between 1990 and 2010. This growing inequality is a potential threat to long-term social and economic development. Children in the lowest wealth quintile are up to three times more likely to die before their 5th birthday than children in the richest quintiles. And despite overall declines in maternal mortality, in the majority of developing countries, women in rural areas still are three times more likely to die while giving birth than women in urban centres.

- **Dependence on Agriculture and a Backward Industrial Structure**: Agriculture is the major source of income in developing countries. In these countries, agriculture and allied activities generally account for 30 to 80 per cent of the labour force. Because of the greater dependence on agriculture, a large portion of National Income also originates in this sector. However, labour productivity in the agricultural sector is lower in developing countries than in developed countries. The industrial sector in the developing countries is also backward. In many of these developing countries, small scale manufacturing and handicrafts are also included in manufacturing. The backwardness of the industrial sector also lies in the composition of industrial output. Here the major industries are food and textiles, which account for over half of the industrial output. Many of these countries even now do not have ability to produce their own producer goods, particularly capital equipments.

Table 3.1: Sectoral share of GDP in Selected Countries (in percentage)

Sl No	Country	Share of Agriculture in GDP	Share of Industry in GDP	Share of Services in GDP
	Africa			
	Egypt	15	46	39
	Ghana	38	23	39
	Madagascar	28	16	56
	South Africa	3	30	67
	Uganda	33	25	43
	Asia			
	Bangladesh	20	27	53
	Indonesia	13	46	41
	Malaysia	9	52	40
	Pakistan	22	25	53
	South Korea	3	40	56
	Phillipines	14	32	53

Thailand	10	44	46
Vietnam	21	41	38
Latin America			
Colombia	13	34	53
Costa Rica	9	30	62
Mexico	4	26	70
Nicaragua	19	28	53
Developed Countries			
United Kingdom	1	26	73
United States	1	22	77

Source: World Bank, World Development Indicators, 2007

- **Production for Self Consumption**: Even now, farmers in developing countries grow crops for self consumption and not for the market. In fact, they practice **subsistence** farming. One reason for this is that the farmers are poor and cultivable land per head is very low.
- **High levels of Unemployment and Underemployment**: Unemployment in both rural and urban areas is widespread in the developing countries. The unemployment found in these countries is involuntary. Traditional agriculture is characterised by outdated techniques of production and low level of productivity which lacks labour absorption capacity. Thus, with rapidly growing population, pressure on agriculture has increased (with the industrial sector growing at a slow rate) leading to **disguished unemployment.**
- **Technological Backwardness**: Developing countries suffer from inefficient production techniques. There are many factors which have led to this state, which includes, among others, lack of research and development, capital scarcity, weak communication between research institutes and industries. As a result of this backward and outdated technology, labour productivity per capita is low and production cost is high.
- **High Population Growth Rates and Dependency Burdens**: The developing countries suffer from high population growth rates varying between 2 and 3.5 percent per annum. This is because of the fact that due to increased medical facilities, there has been a decline in mortality rate but birth rate has remained high. The most important implication of high birth rate in the developing countries is that it leads to a greater dependency burden; the economic implication of this high dependency rate is that the proportion of productive population to unproductive population is lower in developing countries than in developed countries.

- **Dualistic Economy**: Another feature of developing countries is that these countries are mostly dualistic, i.e., there is the existence of two structures – (i) market and (ii) subsistence. The market sector is available mostly in the urban areas with access to transportation, communication, banking, etc. whereas the subsistence sector is totally primitive and in a backward shape.
- **Low Levels of Human Capital**: The developing countries have a low human development score. This is because of their low per capita income and also due to low level of development in terms of health and education.

CHECK YOUR PROGRESS

Q.4: What is meant by subsistence farming? (Answer in around 20 words)

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Q.5: Mention the characteristics of a dualistic economy.
(Answer in around 30 words)

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Q.6: How does high birth rate affect economic development of a region?
(Answer in around 30 words)

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3.5 LET US SUM UP

- The poor countries of the Third World are usually referred to as developing countries. They are also termed as 'underdeveloped', 'backward' or 'developing' countries.
- The common characteristics faced by these countries are general poverty of the masses, low income, unutilised natural resources, primary producing economy, deficiency of capital, dualistic economy, technological backwardness, etc.
- These developing countries also face a number of difficulties in the process of economic development.
- The major economic factors discouraging economic development of a nation include – the Vicious Circle of Poverty, Deficiency of Capital, Market Imperfections, International Forces, Outdated Technology and Low Agricultural Productivity.

- The non economic factors include – Underdeveloped Human Resources, Political Instability, Socio-Cultural Constraints and Religious Factors.
- The Size of a Country, Its Historical and Colonial Background, Resource Endowments of a Country, Economic Planning and Relative Importance of Public and Private Sectors, The Nature of Its Occupational Structure, Degree of Dependence on External Economic and Political Forces and The Distribution of Power and its Institutional and Political Structure determine the nature of development of a Nation.
- The main characteristics of a developing country are – low level of per capita income, large income inequalities, dependence on agriculture, high levels of unemployment, technological backwardness, high population growth rates, low levels of human capital, etc.

3 .6 FURTHER READING

- Lekhi, R. K. & Aarti Nayar (2005). Development and Environmental Economics. New Delhi: Kalyani Publishers
- Jhingan, M. L. (1992). Economics of Development and Planning, Delhi: Konark Publishers Pvt. Ltd.
- Ronald, G (2014). Development Economics, New York: Routledge
- Dreze, J. & Amartya Sen (2013). An Uncertain Glory: India and its Contradictions, UK: Penguin
- Ghatak, S. (2003). Introduction to Development Economics, New York: Routledge
- Ray, Debraj (1998). Development Economics, New Jursey: Princeton University Press

3.7 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q.1: The major economic factors that hamper economic development of a nation include – the Vicious Circle of Poverty, Deficiency of Capital, Market Imperfections, International Forces, Outdated Technology and Low Agricultural Productivity.

Ans to Q.2: Human resource endowments in the form of their skill levels, cultural outlook, attitude towards work, desire for self-improvement etc. help in economic development by raising the productivity level.

Ans to Q.3: The degree to which a country is dependent on external economic and political forces determines their level of development. Many countries cannot hope to develop unless they receive massive financial and technological aid. Most of the

developing countries rely to a great extent on foreign trade with developed countries. Greater the dependence of a country on others, whether in respect of the importance of capital, technology, industrial raw materials or market of finished products, greater are the chances of underdevelopment.

Ans to Q.4: Even now, farmers in developing countries grow crops for self consumption and not for the market. This is known as **subsistence** farming.

Ans to Q.5: Dualistic economy means the existence of two structures – (i) market and (ii) subsistence. The market sector is available mostly in the urban areas with access to transportation, communication, banking, etc whereas the subsistence sector is totally primitive and in a backward shape.

Ans to Q.6: High birth rate leads to a greater dependency burden. The economic implication of this high dependency rate is that the proportion of productive population to unproductive population is lower which adversely affects development.

3.8 MODEL QUESTIONS

Short Questions:

Q1: What are the major characteristics of a developing country?

Q2: Name a few countries which followed the socialist path of development.

Q3: What is meant by disguised unemployment?

Long Questions:

Q1: Briefly discuss a few characteristics of a developing country.

Q2: How does technological backwardness affect economic development of a country?

Q3: Discuss the sectoral share of GDP in UK, USA, Bangladesh and Pakistan.

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UNIT 4: DEVELOPMENT THEORIES I

UNIT STRUCTURE

4.1 Learning Objectives

4.2 Classical Development Theory of Adam Smith

4.3 Main Points of Adam Smith's theory:

- 4.3.1 Natural Law
- 4.3.2 Laissez-Faire
- 4.3.3 Production Function
- 4.3.4 Division of Labour
- 4.3.5 Capital Accumulation
- 4.3.6 Agents of Growth

4.4 Criticisms of Adam Smith's theory

4.5 Classical Development Theory of David Ricardo

4.6 Main Points of Ricardo's theory

- 4.6.1 Capital Accumulations
- 4.6.2 The Profit Rate
- 4.6.3 Increase in Wages
- 4.6.4 Sources of Capital Accumulation
- 4.6.5 Stationary State

4.7 Criticisms of Ricardo's theory

4.8 Let Us Sum Up

4.9 Further Reading

4.10 Answer to Check Your Progress

4.11 Model Questions

4.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- know the concept of development defined by Adam Smith & David Ricardo
- understand the factors that contribute to the growth process.
- elaborate some concepts, such as lassize faire, production function, capital accumulation etc. from Smith's and Ricardo's point of view.
- explain the limitations of Smith's & Ricardo's theories of development.

4.2 CLASSICAL DEVELOPMENT THEORY OF ADAM SMITH

For the classical economists, the development of capitalist economies was a race between technological progress and population growth. The views of classical economists differ in a number of developmental issues but the essence of their approach is the same. So the classical school can be considered as a unit. Different classical economists focused their attention on the factors affecting development such as markets, population, land, capital accumulation etc. Adam Smith, the father of Economics, contained all his ideas in his book, "The Wealth of Nation".

4.3 MAIN POINTS OF THE THEORY

The main points of Adam Smith's theory are as under:

4.3.1 Natural Law:

Adam Smith proposes natural law in economic affairs and advocated for free and independent action. Output is maximized when every member of the society is left to himself. Freedom of action brings out the best of an individual which increases society's wealth and progress. According to Smith, Nature teaches man the lessons of morality and honesty.

4.3.2 Laissez-Faire:

Adam Smith believed in the principle of 'Laissez-Faire' which requires that state should not impose any restriction on freedom of an individual. The policy of 'Laissez-Faire' allows the producers to produce as much as they like, earn as much income as they can and save as much they like.

4.3.3 Production Function:

Adam Smith recognized three factors of production, namely, labour, capital and land, i.e.

$$Y = F(K, L, N)$$

where,

K= Stock of Capital

L= Labour Force

N= Land

According to him, labour is the most important factor of production. Smith also recognized the importance of technological development for improvement in

productivity. This is possible only if sufficient capital is available. According to him, land is a passive element and is the least important in the growth process.

4.3.4 Division of Labour:

According to Smith, division of labour increases the productivity of labour through specialization. When a work is subdivided into various parts and a worker needs to perform small parts of the whole job, his efficiency increases as he is repeatedly doing the same work. Thus, division of labour means breaking up the complex production process into a number of simpler processes. Smith pointed out three benefits of division of labour – it increases dexterity of workers, saves time and leads to inventions.

4.3.5 Capital Accumulation:

According to Smith, "any increase in capital stock in a country generally leads to more than proportionate increase in output on account of continually growing division of labour". Capital accumulation is crucial for economic growth. As capital increases, it leads to increase in labour productivity and growth.

4.3.6 Agents of Growth:

According to Smith, farmers, producers and businessmen are the agents of economic growth. Free trade, enterprise and competition leads farmers, producers and businessmen to expand the market, which, in turn, makes economic development inter-related. The development of agriculture leads to increase in construction works and commerce. When agricultural surplus arises as a result of economic development, the demand for commercial services and manufactured articles also increases. This leads to commercial progress and establishment of manufacturing industries. On the other hand, their development leads to increase in agricultural production when farmers use advanced techniques. Thus, capital accumulation and economic development take place due to the emergence of the farmer, the producer and the businessmen.

CHECK YOUR PROGRESS

Q.1: Explain Adam Smith's ideas of Laissez-Faire (Answer in around 30 words)

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Q.2: Explain Adam Smith's views on capital accumulation (Answer in 50 words)

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4.4 CRITICISMS OF THE THEORY

The criticisms of Adam Smith's theory are discussed below:

- **Static Model:** According to Hicks, this model looks like a growth model but in real sense, it is not a growth model, but a static model.
- **Neglect of Entrepreneur:** Smith does not emphasize on the role of entrepreneur while developing the theory. Prof. Schumpeter points out that entrepreneurship is the focal point of development. It is the entrepreneur who brings about innovations thereby leading to capital formation and growth.
- **One Sided Saving Base:** Smith considered that savings is done only by capitalists, landlords and moneylenders. This is a one sided savings base.
- **Rigid Division of Society:** Smith's theory is based on the socio-economic environment prevailing in Great Britain and certain parts of Europe at that time. It assumes the existence of rigid division of society between capitalist and labourers and neglects the middle class which occupies a significant place in the modern society.
- **Unrealistic Assumptions of Perfect Competition:** Perfect competition is not found in any economy.

CHECK YOUR PROGRESS

Q.3: Explain the criticisms of Adam Smith's theory (Answer in 50 words)

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Q.4: Define the role of entrepreneur in Smith's theory (Answer in around 30 words.

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4.5 CLASSICAL DEVELOPMENT THEORY OF DAVID RICARDIO

Ricardo propounded no theory of development. He simply discussed the theory of distribution.. He considered agriculture as the most important sector of the economy. According to Ricardo, there are three major groups in the economy. They are landlords, capitalists and labourers among whom the entire productive land is distributed. It is the capitalists who initiate the process of economic development in the society by reinvesting profits and thus, increasing capital formation. The total national output is distributed among three groups as rents, profits and wages, respectively.

4.6 MAIN POINTS OF RICARDO'S THEORY

The main points of Ricardo's theory are as under:

4.6.1 Capital Accumulations:

Ricardo emphasized on the rate of capital accumulation as capital acts as an engine of growth. "Capital" is that part of the wealth of a country which is employed in production and consists of food, clothing tools, raw materials, machinery etc., necessary to give effect to labour. Capital accumulation depends upon two factors:

a. Capacity to save
b. Willingness to save

The capacity to save is more important in capital accumulation. This depends on the net income of the society; it is a surplus out of the total output after meeting the cost of workers' subsistence. The larger the surplus, the larger will be the capacity to save. Landlords and capitalists invest through this surplus and the size of this surplus depends upon the rate of profits.

4.6.2 The Profit Rate:

The rate of profit is the ratio of profits to capital employed. But since capital consists of working capital, it is equal to the wage bill. So, as long as rate of profit is positive, the process of capital accumulations will continue and the economy will progress. The labour force will grow proportionately and the total wage fund will increase. Hence, profit and wages are inversely proportional to each other. The process of growth will continue till the profits fall to zero or the whole of the total product less rent is used for the maintenance of labour at subsistence level. At this stage, capital accumulation stops and the progress of the economy reaches a stationary state.

4.6.3 Increase in Wages:

In Ricardian scheme, wages play an active role in determining income between capital and labour. The wage rate depends upon the number of workers and wage funds. The wage rate falls with the increase in number of workers and vice-versa. If the wage rate is sufficient to enjoy the comforts of life by the labourers, the population is expected to increase and if the wage rate is less than the **subsistence wage**, the working class cannot meet the necessities of life and the population will decrease.

4.6.4 Sources of Capital Accumulation:

Ricardo is of the view that economic development depends upon the differences between production and consumption. He stresses on increasing production and reducing unproductive consumption. The productivity of labour can be increased through technological changes and better organization and thereby stimulating capital accumulation.

4.6.5 Stationary State:

Stationary state refers to that situation of an economy when the entrepreneurs have no tendency either to increase or decrease output. Ricardo has explained the stationary state in terms of falling rate of profit. As society progresses, the share of profit begins to fall. Fall in profit slackens capital accumulation and development receives a setback.. At this stage, there is no capital expansion and population growth also stops. This is the stationary state.

CHECK YOUR PROGRESS

Q.5: Explain in brief Ricardo's ideas of capital accumulation (Answer in around 50 words)

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Q.6: Explain in brief Ricardo's ideas on stationary state. (Answer in 50 words)

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4.7 CRITICISM OF RICARDO'S THEORY

The weaknesses of Ricardo's theory are:

- **Neglects Impact of Technology**:

Ricardo pointed out that the improved technology in the industrial field leads to displacement of labour and other adverse consequences. When the technological progress is exhausted, diminishing returns set in and the economy moves towards stationary state. In this way, Ricardo has given unnecessary importance to the law of diminishing returns.

- **Wrong Notion of Stationary State:**

  No economy reaches a stationary state when profits are increasing, profits are rising and capital accumulation is taking place.

- **Neglects Institutional Factors and Interest Rate:**

  This theory neglects the role of institutional factors. Since they play a crucial role in economic development, so they cannot be overlooked. Again, the rate of interest is not regarded as an independent reward but it is included in profits. This fails to distinguish between the capitalist and entrepreneurs.

- **Capital and Labour not Fixed:**

  The Ricardian assumption that capital and labour are fixed co-efficient of production is not correct because labour and capital are independent variables.

- **Laissez-Faire Policy Impractical:**

  According to Ricardo, government intervention should be minimum. But no economy can function without government intervention.

4. 8 LET US SUM UP

- The classical economists focused their attention on the factors affecting development such as markets, population, land, capital accumulation etc.
- Adam Smith proposes natural law in economic affairs. He advocated the philosophy of free and independent action.
- The principle of 'Laissez-Faire' requires that state should not impose any restriction on freedom of an individual.
- Adam Smith in his book 'The Wealth of Nations' pointed out three benefits of division of labour- Increase of dexterity of workers, saves time required to produce commodity, Invention of better machines and equipments.
- Smith has observed that farmers, producers and businessmen are the important agents of economic growth.
- According to Smith the process of growth is cumulative.
- Ricardo propounded no theory of development but simply discussed the theory of distribution.

- Ricardo emphasized the rate of capital accumulation as capital acts as an engine of growth..
- According to Ricardo, "The process of growth will continue till the profits fall to zero or the whole of the total product less rent is used for the maintenance of labour at subsistence level."

4. 9 FURTHER READING

- Agarwal, R.C., Economics of Development & Planning, First edition, 2002
- Lekhi, R.K., Development Economics, Kalyani Publishers, 2013
- Meier, G.M., & James E. Rauch, Leading Issues in Economic Development, Eight Edition, 2009
- Ray, Debraj, Development Economics, 2002
- Thirwall, A.P., Economics of Development, Ninth Edition, 2011
- Todaro, Michael P. and Stephen C. Smith, Economic Development, Tenth Edition, 2009

4.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q.1: The principle of 'Laissez-Faire' requires that state should not impose any restriction on freedom of an individual. The policy of 'Laissez-Faire' allows the producers to produce as much as they like, earn as much income as they can and save as much they like.

Ans to Q.2: According to Smith, "any increase in capital stock in a country generally leads to more than proportionate increase in output on account of continually growing division of labour". Capital accumulation is crucial for economic growth. As capital increases, it leads to increase in labour productivity and growth.

Ans to Q.3: The criticisms of Adam Smith's theory are:

i. It is a Static Model
ii. The role of the entrepreneur is neglected though the entrepreneur is the focal point of development
iii. One Sided Saving Base which is believed to be done only by capitalists, landlords and moneylenders
iv. Rigid Division of Society between capitalists and labourers.
v. Unrealistic Assumptions of Perfect Competition which is not found in any economy.

Ans to Q.4: Smith does not emphasize the role of entrepreneur while developing the theory. Prof. Schumpeter points out that entrepreneurship is the focal point of development.

It is the entrepreneur who brings about innovations thereby leading to capital formation and growth.

Ans to Q.5: Ricardo emphasized on the rate of capital accumulation as capital acts as an engine of growth. Capital accumulation depends upon two factors: Capacity to Save and Willingness to save. The capacity to save is more important in capital accumulation. This depends on the net income of the society which is a surplus out of the total output after meeting the cost of workers subsistence. The larger the surplus, the larger will be the capacity to save.

Ans to Q 6: With the increase in capital accumulation, profits and wages tend to increase and the rise in wages brings about a decline in profits. The decline in profit will continue till a stage comes when the net product curve intersects the wage line at a particular point. At this point the economy is in a stationary state.

4. 11 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q1: Give Adam Smith's views on economic development.

Q2: Give Ricardo's views on economic development.

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

Q1: Make a critical appraisal of Adam Smith's theory of development.

Q2: Make a critical appraisal of Ricardo's theory of development.

Q3: What is the economic significance of 'division of labour'? Why did Ricardo predict a stationary state for an economy?

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UNIT 5: DEVELOPMENT THEORIES II

UNIT STRUCTURE

5.1 Learning Objectives

5.2 Lewis Theory of Unlimited Supply of Labour: Its Assumptions

5.3 Features of Lewis Theory

- 5.3.1 Two Sector Economy Or Dual Economy
- 5.3.2 Capitalist's Surplus

5.4 Critical Appraisal of Lewis Theory

5.5 Rostow's Stages of Economic Growth

- 5.5.1 The Traditional Society
- 5.5.2 Pre-Conditions for Take-off
- 5.5.3 The Take Off
- 5.5.4 The Drive to Maturity
- 5.5.4 Stage of High Mass Consumption

5.6 Criticisms of Rostow's Stages of Economic Growth

5. 7 Let Us Sum Up

5.8 Further Reading

5.9 Answers to Check your Progress

5.10 Model Questions

5.1 LEARNING OBJECTIVES

After going through this unit you will be able to:

- know the assumptions of Lewis' theory of Unlimited Supply of Labour.
- understand the features of the Lewis' theory
- know the limitations of Lewis' theory of Unlimited Supply of Labour.
- learn about Rostow's Stages of Economic Growth
- understand the classification of Rostow's Stages of Economic Growth
- know the limitations of Rostow's Stages of Economic Growth

5.2 LEWIS THEORY OF UNLIMITED SUPPLY OF LABOUR: ITS ASSUMPTIONS

Prof. Lewis's model is based on the following assumptions:

- There exists an unlimited supply of labour in the economy
- The economy is dualistic in nature.

- The cost of imparting training and skill to the unskilled labour is assumed to remain constant through time.
- The production in the expanding capitalist sector takes place according to the principle of profit maximization.
- The capitalist sector operates by employing reproducible capital and wage labour.
- The subsistence sector does not make use of reproducible capital.
- The per capita output in the subsistence sector is considerably smaller than that in the capitalist sector.
- The relationship between the capitalist and the subsistence sector lies in the fact that as former expands, it draws labour from the latter.
- The wages which the expanding capitalist sector has to offer are determined by the earnings in the subsistence sector.

5.3 FEATURES OF LEWIS THEORY

The main features of Lewis model of unlimited supply of labour are given below –

5.3.1 Two Sector Economy or Dual Economy

According to Lewis, developing countries have unlimited supply of labour at subsistence wage. These countries have a dual economy and can be divided into two sectors –

(a) The Capitalist Sector

(b) The Subsistence Sector

The capitalist sector is that part of the economy which uses **reproducible capital**. The use of capital is controlled by the capitalist sector which hires the services of the labourers. The averages wages are quite high. The people are generally advanced, literate, sophisticated and skilled in the capitalist sector. They employ labourers for wages in mines, factories and plantations etc. for earning profits. The output per head is high. On the other hand, the subsistence sector is that part of the economy which does not use reproducible capital. In this sector, the output per head is low and people are generally backward, illiterate and unskilled. The main problem is to provide gainful employment to the unlimited supplies of labour. This can be done by setting up or expanding existing industries or by drawing up surplus labour from the subsistence sector at subsistence wage. It implies the mobilization of labour from the subsistence sector, where the marginal productivity of labour is quite low, to the capitalist sector, where the wages are high and the marginal productivity of labour is also high.

CHECK YOUR PROGRESS

Q.1: State whether the following statements are True or False:

a. The savings of capitalist class is small (T/F)

b. Most of the underdeveloped countries live under heavy pressure of population (T/F)

Q.2: Explain the concept of Capitalist Sector as given by Lewis. (Answer in 50 words)

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5.3.2 Capitalist Surplus

The main objective of capitalists is to maximize their profits. The capitalist surplus is the difference between the marginal productivity of labour and the capitalist wage. The capitalist starts drawing labour from the subsistence sector. The contribution of this labour to output is higher than their wages. In this way surplus is generated in the capitalist sector. Prof. Lewis termed this surplus as the '**capitalist surplus'**. The capitalist surplus is reinvested in the new capital assets by the entrepreneurs. It leads to capital formation in the economy. This investment creates new jobs for the unemployed labourers withdrawn from the subsistence sector. The supply of labour is supposed to be perfectly elastic at the capitalist wage rate. Thus, the labourers continue to be available at the existing capitalist wage rate. The circular process of surplus generation, increased investment and increased demand for labour continues to steer the system out of the state of underdevelopment. In short, the process of economic development continues till the capital labour ratio rises and the supply of labour becomes inelastic, and surplus labour disappears.

5.4 CRITICAL APPRAISAL OF LEWIS THEORY OF UNLIMITED SUPPLY OF LABOUR

This model is criticized on theoretical and practical grounds on the basis of the following points:

- **Unrealistic Assumption:** The theory assumes a constant wage rate in the capitalist sector until the supply of labour is exhausted from subsistence sector. This is an unrealistic assumption.
- **Limited Supply of Skilled Labour**: Prof. Lewis admits himself that limited supply of skilled labour is only a temporary bottleneck which can be removed by providing

facilities for training labour. But the fact is that the problems of skill formation are not easily overcome especially in backward and underdeveloped economies.

- **One sided Theory:** Prof. Lewis does not consider the possibility of progress in agricultural sector; thus, it is a one sided theory.
- **Savings not done by Capitalist Sector Alone:** It is not true to say that bulk of saving is done by the capitalist sector alone in developing countries.
- **Migration is not an Easy Task:** The migration of labour force from subsistence to capitalist sector is not as easy as is pointed out in the Lewis model. Labour is difficult to transport because of their affection for land and homes.

Inspite of the criticisms, one cannot deny the utility of the Lewis model in the process of economic development. It explains the role of capital forrmation in developing countries where labour is surplus and capital is scarce.

CHECK YOUR PROGRESS

Q.3: Define Capitalist Surplus based on Lewis' Theory (Answer in 50 words)

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Q.4: Why is the Lewis Theory called a one-sided theory? (Answer in 50 words)

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5.5 ROSTOW'S STAGES OF ECONOMIC GROWTH

Prof. W.W. Rostow has classified the process of economic growth into the following five stages:

- The Traditional Society
- Pre conditions for "take off"
- The Take off Stage
- The Drive to Maturity
- The Age of High Mass Consumption

5.5.1 Stage I: Traditional Society

In the process of economic growth, the first stage is the stage of traditional society. It is a society based on primitive technology and primitive attitude towards the physical world. The economic activities in such societies were carried on with ordinary tools and implements and were confined only to meet the domestic demands. But it does not mean that the traditional society was static. Agricultural

production could be increased by bringing more land under cultivation. But the increase in agricultural production was on the basis of diminishing returns. The structure of such society was hierarchical in character in which family, caste, clan and creed connections play a major role. Its working was very much influenced by the whims and wishes of the rich aristocrats and big land lords. Thus, the main features of a traditional society are predominance of agriculture, significance of family and caste system, concentration of political power with certain traditionally dominant social groups, science and technology are almost unknown in this stage of economic growth, high birth and death rates, ignorance about development avenues, confinement of economic activities to meet the domestic needs etc.

5.5.2 Stage II: The Pre-Conditions of Take-off

The preconditions of take-off stage actually refers to the stage wherein all the important factors of production - land, labour, capital and enterprise are collected. Technological factors are improved and developed. Entrepreneurs emerge to mobilize savings and take risks for profits. Major political hurdles to industrial orientation of the economy and the unification of the country are removed. This opens avenues towards an integrated economy. Productive revolution takes place in agricultural activities. This stage, however, involves a slow change in the attitudes and the organizational patterns. The concept of economic development begins to be realized when traditional rigidities and bottlenecks break up. Occupatational, geographical and social mobility takes place. Import substitution industries are set up. Death rate declines while birth rate remains the same. Population pressure increases.

According to Rostow the preconditions for sustained industrial growth have normally required radical changes in three non-industrial sectors. They are-

- Construction of social overhead
- Emergence of a technological revolution in agriculture
- Expansion of foreign trade

In addition to these, a social change is also necessary for transition. There must be a definite change in social attitudes, expectations and values. People must desire progress and they must be convinced that development is possible.

5.5.3 Stage III: The Take-off

The take-off is a decisive stage in the evolution of any society in which growth becomes a normal condition of a society. The take-off process generally begins on account of some sharp stimulus which may come from political

revolution, a technological innovation or even a favourable international environment. The expansion of the different sectors transform the structure of an economy which starts moving on self-sustained growth. Once the economy enters into self-generating growth, then economic forces accelerate the process of economic development. In this stage, the economy can progress without external assistance. New industries are established which start yielding surplus. Rate of investment improves. New innovations take place. However, the take-off period is supposed to be very short, lasting for two or three decades.

Thus, the main features of the take-off stage are - new possibilities for productive enterprises, entrepreneurship develops and capital formation increases, foreign capital becomes helpful but not as an essential condition, emergence of leading sectors that generate a maximum or reinvestible surplus which can be ploughed back into productive investment, foreign trade contributes to raise the rate of investment, increase in demand, technical development, government policy becomes conducive to economic growth, economic revolution for self-sustaining and self-generating growth.

5.5.4 Stage IV: The Drive to Maturity

During this period, many technical changes take place and the society reaches technical maturity. New production techniques take place and the old one disappears. During this period the rate of saving and investment reaches such a magnitude that economic growth becomes automatic. There is a sharp increase in exports. As the economy drives to maturity, the overall capital per head increases. Industrialization becomes widespread along with diverse applications of new technology. The country becomes self - dependent. New leading sectors are created. The proportion of population engaged in rural activities decline. People prefer to live in urban areas. Working force becomes technically skilled. Real wages rise. The working force organises itself in order to have greater economic and social security.

The main features of the drive to maturity stage are- labour becomes skilled, real wages start rising, labour becomes organized, emergence of polished, polite and efficient managers, the investment rate rises from 10% to 20%, technological changes takes place leading to technological maturity, rapid increase in export, shift of population from rural areas to urban areas, the economy earns a status of significance amongst developed nations of the world, etc.

5.5.5 Stage V: The Stage of High Mass Consumption

In this stage, the attention of the economy shifts from production to consumption and the welfare of the people. There is migration of the population from villages to cities, extensive use of automobiles, durable consumption goods and household instruments. The main features of this stage are- consumption of comforts and luxuries rises, standard of living of the people rises, society assumes the role of welfare state, aggregate and per capita income becomes high, this is a period of consumer's sovereignty, population migrates from villages to the cities, financial security increases, increase in employment opportunities, extensive use of automobiles, durable consumption goods and household instruments etc.

CHECK YOUR PROGRESS

Q.5: State whether the following statements are True or False:

a. Prof. Rostow has classified the process of economic growth in three stages (T/F)

b. In the traditional society there was no dominance of agriculture (T/F)

Q.6: What are the features of a traditional society? (Answer in around 50 words)

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Q.7: What is meant by take-off stage? (Answer in 50 words)

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5.6 CRITICISM OF ROSTOW'S STAGES OF ECONOMIC GROWTH

Prof. Rostow's Theory is criticized on the following grounds:

- **Traditional Society Not Necessary for Development**: According to critics, it is not true that every country essentially passes through the first stage of traditional society. Countries like United States, Canada, New Zealand and Australia were born free from traditional society.
- **Preconditions May Not Precede the Take-Off:** According to critics, the stage of preconditions is also not essential to be undertaken before the take-off stage. For instance, there is no reason to believe that an agricultural revolution and accumulation of social overhead capital in transport must take place before the take-off.

- **Overlapping of Different Stages:** In many countries, the development of agriculture continues even in the take-off stage. It shows a considerable overlapping in the different stages.
- **Lack of Basis:** Prof. Rostow does not provide any basis for distinctly separating one stage from the other. It is difficult to ascertain when a particular stage begins and the other ends.
- **Uncertainty:** Rostow's stages analysis only tells the sequence of stages. It fails to predict the course of events with regard to economic growth. Also, what would happen after the Fifth stage is beyond the scope of Rostow's growth analysis.

5.7 LET US SUM UP

- Prof. Lewis has studied the process of economic development in the dual or two sector economy with special reference to developing countries.
- According to Lewis underdeveloped countries have a dual economy and hence can be divided into two sectors – The Capitalist Sector and the Subsistence Sector
- The relationship between the capitalist and the subsistence sector lies in the fact that as the former expands, it draws labour from the latter.
- The main objective of capitalists is to maximize their profits. The capitalist surplus is the difference between the marginal productivity of labour and the capitalist wage.
- The capitalist surplus is reinvested in the new capital assets by the entrepreneurs. It leads to capital formation in the economy which ultimately leads to growth.
- Prof. W.W. Rostow has classified the process of economic growth into the following five stages: The Traditional Society, Pre conditions for "take off", The Take off Stage, The Drive to Maturity and The Age of High Mass Consumption
- However growth pattern shows a considerable overlapping in the different stages.
- Rostow's stages analysis only tells the sequence of stages. It fails to predict the course of events with regard to economic growth. Also, what would happen after the Fifth stage of growth is beyond the canvas of Rostow's growth analysis.

5.8 FURTHER READING

- Agarwal, R.C., Economics of Development & Planning, First edition, 2002
- Meier, G.M., & James E. Rauch, Leading Issues in Economic Development, Eight Edition, 2009
- Ray, Debraj, Development Economics, 2002
- Thirwall, A.P., Economics of Development, Ninth Edition, 2011
- Todaro, Michael P. and Stephen C. Smith, Economic Development, Tenth Edition, 2009

5.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q 1 a: False

Ans to Q 1 b: True

Ans to Q 2: The capitalist sector is that part of the economy which uses reproducible capital and pays capitalists for the use thereof. The use of capital is controlled by the capitalist sector which hires the services of the labourers. It may be either private or public. The output per head in this sector is high.

Ans to Q 3: The capitalist surplus is the difference between the marginal productivity of labour and the capitalist wage. The capitalist starts drawing labour from the subsistence sector. The contribution of this labour to output is higher than their wages. In this way surplus is generated in the capitalist sector. Prof. Lewis termed this surplus as the '**capitalist surplus**'.

Ans to Q 4. Prof. Lewis does not consider the possibility of progress in agricultural sector; thus, it is a one sided theory. However, as the industrial sector develops, the demand for food and raw materials will rise, which will in turn lead to growth in agricultural sector.

Ans to Q.5 a: False

Ans to Q 5 b: False

Ans to Q.6: The main features of a traditional society are, predominance of agriculture, significance of family and caste system, concentration of political power with certain traditionally dominant social groups, science and technology are almost unknown in this stage of economic growth, high birth and death rates, ignorance about development avenues, confinement of economic activities to meet the domestic needs etc.

Ans to Q.7: It is the period in which growth becomes a normal condition of a society. The take-off process generally begins on account of some sharp stimulus which may come from political revolution, a technological innovation or even a favourable international environment. The expansion of the different sectors transforms the structure of an economy which starts moving on self-sustained growth. In this stage, the economy can progress without external assistance. New industries are established which start yielding surplus. Rate of investment improves. New innovations take place leading to high growth.

5. 10 MODEL QUESTIONS

A) Short Questions (Answer each question in about 75 words)

Q1: Define the concept 'the drive to maturity'.

Q2: Explain in brief the pre-conditions of take –off.

Q3: Describe the process of growth according to Lewis model.

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

Q1: Explain briefly the Lewis theory with the help of diagrammatic representation.

Q2: Explain briefly the criticisms of the Lewis theory.

Q3: Explain the term "The Take Off". Mention the conditions and importance of this stage.

Q4: Mention the limitations of Rostow's Stages of Economic Growth.

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UNIT 6: BALANCED AND UNBALANCED GROWTH

UNIT STRUCTURE

6 .1 Learning Objectives
6.2 Theory of Balanced Growth
6.3 Basis of the Theory
6.4 Critical appraisal of the Theory of Balanced Growth
6.5 Theory of Unbalanced Growth
6.6 Unbalancing the Economy
6.7 The Path of Development
6.8 Critical appraisal of the Theory of Unbalanced Growth
6.9 Let Us Sum Up
6.10 Further Reading
6.11 Answer to Check Your Progress
6.12 Model Questions

6.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- understand the concept of balanced growth & unbalanced growth.
- explain the basis of growth process and views of various economists on growth.
- elaborate some concepts, such as, social overhead capital, directly productive activities, developmental path, etc.
- briefly explain the limitations of balanced & unbalanced theory of growth.

6.2 INTRODUCTION

According to the strategy of balanced growth, simultaneous investment should be made in different sectors of the economy to achieve the goal of economic development. The reason for advocating this doctrine is that when all sectors and all industries develop, they employ a large number of people, creating demand for one another's goods. The various sectors and industries will complement each other and bring about a simultaneous balanced growth of the economy. The major advocates of this theory were Rugnar Nurkse, Arthur Lewis, Rosenstein- Rodan, Meier and Baldwin.

6.3 THEORY OF BALANCED GROWTH - BASIS OF THE THEORY

The doctrine of balance growth can be explained from three aspects:

- **Supply Side**: Supply/production in a developing country is low. This is because savings in these countries is low due to low income. Low savings results in low

investment. Low investment leads to low capital formation and low productivity. Low productivity leads to low income. So, it is imperative to increase investment in order to increase demand. Thus, the concept of balanced growth from the supply side advocates for simultaneous development of all sectors of the economy, viz., agriculture, industry, internal trade, transport, etc simultaneously.

- **Demand Side**: In developing countries, people have low purchasing power because of their low income. This leads to low demand. Low demand results in less expansion of market. Small market results in low investment. Therefore efforts should be made to increase the demand in these countries. The concept of balanced growth from the demand side calls for simultaneous development of all industries so that all can be customers mutually and the product sold out.
- **Sectoral Balance**: It means economic development of all the sectors in an economy. As agriculture and industry are complementary to each other, expansion of industry will require expansion of agriculture and vice-versa. Again, expansion of industrial sector will raise the demand for raw-materials which will only be supplied by expanding of agricultural sector. In the same manner, a balance between domestic trade and foreign trade becomes essential during the process of economic development. Thus, according to Prof. Lewis, the domestic sector must grow along with the foreign sector.

CHECK YOUR PROGRESS

Q.1: State whether the following statements are True or False:

a. Three leading economist have expressed their views as to the theory of balanced growth (T/F)

b. The theory of balanced growth ignores agricultural sector (T/F)

Q.2: Define the concept of 'balanced growth'. (Answer in around 20 words).

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6.4 CRITICAL APPRAISAL OF THE THEORY OF BALANCED GROWTH

The doctrine of balanced growth has been strongly criticized by Prof. Hirschman, Singer, Kurihara and many other economists. The points of criticism are given as under:

- **Administrative Difficulties:** The principle of balanced growth overlooks the administrative diificulties of developing countries. The administrative machinery is not efficient enough which hampers the smooth functioning of the economy.

- **Rise in Costs:** Another criticism of the concept is that while establishing a number of industries, demand for factors of production increases, leading to price rise. Investment then becomes unprofitable. Therefore, unless resources are available, creation of demand will just lead to a rise in price.
- **Deficiency of Capital:** Balanced growth requires huge amount of capital investment. However the developing countries cannot afford such heavy capital due to low savings and market imperfections etc. Thus, the doctrine of balanced growth becomes an exercise in futility.
- **Factors Disproportionalities:** In developing countries, too much labour is employed against too little capital. In such countries, labour is in abundance but capital and entrepreneurial skills are scarce. This disproportionality in factors of production creates several hindrances in the implementation of successful operation of balanced growth theory.
- **Planning Aspect Ignore:** The theory of balanced growth is mainly concerned with private enterprise economy where the need of planning does not occur. Thus, it ignores the role of planning in developing countries where simultaneous investments in every sector need planning, direction and co-ordination by government.

CHECK YOUR PROGRESS

Q.3: How can the concept of balanced growth explained from the 'Supply Side'? (Answer in 50 words)

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Q.4: Write the limitations of 'balance growth' theory. (Answer in 70 words)

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6.5 THE THEORY OF UNBALANCED GROWTH

Prof. Hirschman has propounded the doctrine of 'unbalanced growth' in his book 'Strategy of Economic Development'. This theory has been supported by many leading economists like H.W. Singer, Macsus Flamming, C.P. Kindleberger, W.W.Rostow, Paul Streeten and so on. According to Hirschman, "Development is a chain of disequilibria that must be kept alive rather than eliminate the disequilibrium of which profits and losses are symptoms in a competitive economy. If an economy is to keep moving ahead, the task of development policy is to maintain tension, disproportions and disequilibria."

According to Prof. Hirschman developing countries should develop one or two strategic industries initially by making huge investment. Capital goods industries should be preferred over consumer goods industries. It is because capital goods industries accelerate the development of the economy, where development of consumer goods industries is the natural outcome.

The strategy of unbalanced growth is most suitable in breaking the vicious circle of poverty in underdeveloped countries. The poor countries are in a state of equilibrium at a low level of income. Production, consumption, saving and investment are so adjusted to each other at an extremely low level that the state of equilibrium itself becomes an obstacle to growth. The only strategy of economic development in such a country is to break this low level equilibrium by deliberately planned unbalanced growth.

6.6 UNBALANCING THE ECONOMY

Unbalancing of the economy is possible by investing either in

- **Social Overhead Capital (SOC)** or
- **Directly Productive Activities (DPA)**.

SOC means those sectors of the economy which form infrastructure necessary for growth. Irrigation, power, electricity, transportation, education, public health etc are examples of SOC. A large investment in social overhead capital will encourage private investment later in DPA. Thus, the SOC approach to economic development is to imbalance the economy so that subsequent investments in DPA are stimulated.

DPA means the final production units. When the economy is unbalanced by more investment in DPA, the shortage of SOC activities will raise cost of production. The rise in cost of production is bound to increase the price level as well. Increase in price level hampers the growth process. In course of time, political pressure builts up on the governments to encourage more investment in SOC.

The swing from SOC to DPA has been called by Hirchman as '**development via excess capacity of SOC**'; and the swing from DPA to SOC as '**development via shortage of SOC'** in social overhead capital. If the political pressure is effective, the government may take immediate initiative of making investment in social overhead capital.

CHECK YOUR PROGRESS

Q.5: State whether the following statements are True or False:

a. Unbalanced growth is a long term strategy. (T/F)

b. The unbalanced growth theory aims at development of all sectors of the economy (T/F)

Q.6: Define the concept of 'Unbalanced growth'. (Answer in around 50 words)

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Q.7: Write a note on SOC and DPA. (Answer in 70 words).

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6.7 THE PATH OF DEVELOPMENT

The path of development through both 'development via excess capacity of SOC' and 'development via shortage of SOC' can be shown by the following diagram

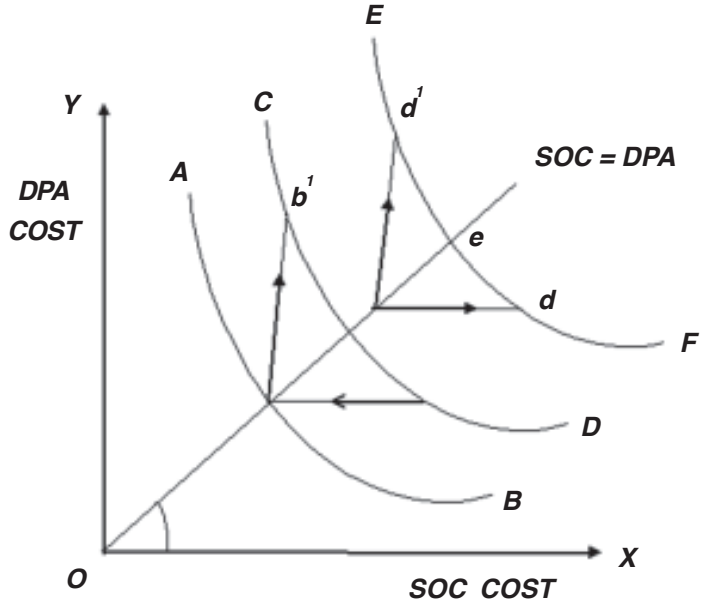


Figure 8.1

In the above diagram the isoquants AB, CD, EF shows different quantities of DPA and SOC, which give same GNP at any point. Higher the isoquants, higher will be the GNP and vice-versa.

Now the path of development is followed via excess capacity of SOC then the path of development would be a b c d e. When investment is SOC increases by ab, it leads to an increase in DPA equal to ab. These types of investments will shift the equilibrium from a to c which is on CD isoquant curve which is higher than AB isoquant.

On the other hand, if path of development via shortage of SOC is adopted, the path of development would be a b/ c d/ e. When ab/ DPA are made in the economy, ab investment in SOC is required. But ab investment needs political pressure. The equilibrium would shift to point c. Again for cd/ DPA investment, we need cd investment in SOC. This

again needs political pressure. If the government comes forward with cd investment, only then the new equilibrium would be at point e.

Out of the two paths of development, the first path of excess SOC i.e. a b c d e is very smooth path. This path is self-propelling. On the contrary, excess DPA i.e. a b/ c d/ e path needs political pressure.

6.8 CRITICAL APPRAISAL OF THE THEORY OF UNBALANCED GROWTH

The doctrine of unbalanced growth suffers from a number of inconsistencies. They are

- **Lacks Basic Facilities:**

  The success of unbalanced growth lies in availability of basic facilities like raw – material, power supply etc. But developing countries lack such facilities at the initial stages of development which is a major constraint for the successful implementation of the strategy.

- **Neglects Consumer Goods Industries:**

  From the consumer's point of view, Prof. Hirschman's doctrine of unbalanced growth is a failure because it gives undue emphasis on setting up of capital goods industries at the expense of consumer goods industries.

- **Lacks Flexibility:**

  In developing counties, it is difficult to shift resources from one sector to another.

- **Wastage of Resources:**

  According to many critics, the method of unbalanced growth involves a considerable wastage resource. Some sectors in the economy will grow at a faster rate while others remains neglected. To achieve the balanced growth, every sector should grow simultaneously and there should be no scope of wastage of resources.

CHECK YOUR PROGRESS

Q.8: What is meant by development path? (Answer in around 50 words)

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Q.9: Write the limitations of 'Unbalance growth' theory (Answer in 70 words)

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6. 9 LET US SUM UP

- According to the strategy of balanced growth, to achieve the goal of economic development, simultaneous investment should be made in different sectors of the economy.
- The doctrine of balance growth requires the balance of three types, such as, supply side, demand side and sect oral balance.
- Prof. Hirschman has propounded the doctrine of unbalanced growth
- According to Prof. Hirschman developing countries should not develop all the sectors simultaneously rather one or two strategic sectors or industries should be developed by making huge investment.
- Development, according to Hirschman, can take place only by unbalancing the economy. This is possible by investing either in Social Overhead Capital (SOC) or in Directly Productive Activities (DPA).
- According to Prof. Hirschman, there are two paths of development. The first path is the sequence (from SOC to DPA) development via excess capacity of SOC and the second path is the sequence (from DPA to SOC) development via shortage of SOC.

6. 10 FURTHER READING

- Agarwal, R.C., Economics of Development & Planning, First edition, 2002
- Lekhi, R.K., Development Economics, Kalyani Publishers, 2013
- Meier, G.M., & James E. Rauch, Leading Issues in Economic Development, Eight Edition, 2009
- Ray, Debraj, Development Economics, 2002
- Thirwall, A.P., Economics of Development, Ninth Edition, 2011
- Todaro, Michael P. and Stephen C. Smith, Economic Development, Tenth Edition, 2009

6 . 11 ANSWERS TO CHECK YOUR PROGRESS

Ans 1 a: True

Ans 1 b: False

Ans 2: According to the strategy of balanced growth, to achieve the goal of economic development, simultaneous investment should be made in different sectors of the economy.

Ans 3: Supply/production in a developing country is low. This is because savings in these countries is low because of low income. Low savings results in low investment.

Low investment leads to low capital formation and low productivity. Low productivity leads to low income. So, it is imperative to increase investment in order to increase demand. Thus, the concept of balanced growth from the supply side advocates for simultaneous development of all sectors of the economy, viz., agriculture, industry, internal trade, transport, etc simultaneously.

Ans 4: The foremost, drawback of the concept of balanced growth is that the establishment of number of industries will raise the real and money cost of production. It is economically unprofitable to operate in the absence of sufficient capital equipment, skills, cheap power, finance and other necessary raw materials. In the path of balance growth huge amount of capital investment is required. While UDCs cannot afford such heavy capital due to low savings and market imperfections etc. Thus, the doctrine of balanced growth becomes an exercise in futility.

Ans 5 a: False

Ans 5 b: False

Ans 6: Prof. Hirschman has propounded the doctrine of 'unbalanced growth' in his book 'Strategy of Economic Development'. According to this concept, investment should be made in selected sectors rather than selected simultaneously in all sectors of the economy. It is imbalance rather than balance between different sectors of the economy that stimulates economic growth in underdeveloped countries.

Ans 7: SOC means those sectors of the economy which form infrastructure necessary for growth. Irrigation, power, electricity, transportation, education, public health etc are examples of SOC. A large investment in social overhead capital will encourage private investment later in DPA.

DPA means the final production units. When the economy is unbalanced by more investment in DPA, the shortage of SOC activities will raise cost of production, which leads to a rise in price level. Increase in price level hampers the growth process. In course of time, political pressure builts up on the governments to encourage more investment in SOC.

Ans 8: According to Prof. Hirschman, there are two paths of development. The first path is the sequence (from SOC to DPA) development via excess capacity of SOC and the second path is the sequence (from DPA to SOC) development via shortage of SOC.

Ans 9: According to many critics, the method of unbalanced growth involves a considerable wastage resource. Some sectors in the economy will grow at a faster rate while others remains neglected. Linkages effects are not based on statistical data

pertaining to LDCs, where social overhead facilities are much developed for a generation or so. The study of such effects requires the mutual dependence of industries and such dependence lacks in the initial stages of economic development.

6. 12 MODEL QUESTIONS

Short Questions (Answer each question in about 75 words)

Q1: How does deficiency of capital hamper the process of balanced growth?

Q2: Explain briefly the concepts of Social Overhead Capital and Directly Productive Activities.

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

Q1: Critically explain balanced theory of economic development.

Q2: Critically discuss Hirschman's theory of unbalanced growth.

Q3: Explain how an economy can be made unbalanced with SOC and DPA.

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UNIT 7: ROLE OF AGRICULTURE IN ECONOMIC DEVELOPMENT

UNIT STRUCTURE

7.1 Learning objectives

7.2 Introduction

7.3 Indian Agriculture in the Planning Period

7.4 Modernization of Agriculture

- 7.4.1 Benefits of modernization of agriculture
- 7.4.2 Cases against modernization of agriculture

7.5 Green Revolution

- 7.5.1 Achievements of Green Revolution
- 7.5.2 Shortcomings of Green Revolution
- 7.5.3 Second Generation Green Revolution

7.6 Role of agriculture in developing countries

7.7 Let us sum up

7.8 Further reading

7.9 Answer to check your progress

7.10 Model questions

7.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- understand the scenario of Indian agriculture during the Five Year Plan Periods in India.
- elaborate the concepts of modernization of agriculture with its benefits and shortcomings.
- understanding Green Revolution, with its success and failures.
- briefly explain the role of agriculture in economic development of a country.

7.2 INTRODUCTION

Development of agriculture can be taken as the base of economic development of a country because industrialization is basically made possible by agricultural development only. As a matter of fact, if the process of economic development is to be initiated and made self-sustaining, it must begin from the agricultural sector.

7.3 INDIAN AGRICULTURE IN THE PLANNING PERIOD

The progress of agriculture under different Five-Year Plans in India can be discussed in the following phases:

- **Phase I: (1st Plan - 4th Plan) (Period 1951 – 1974):**

  The First Plan set its aim to solve the food problem that India was facing and also tried to increase agro raw materials like raw jute, raw cotton, oil seeds etc. In the First Plan, in respect of production of food grains, the country could produce 67 million tonnes as against the target of 62 million tonnes. Moreover, the target in respect of production of oilseeds marginally exceeded target but there were shortfall in realizing targets of sugarcane, jute, cotton etc. However, the progress achieved during the Second Plan, Third Plan and Fourth Plan in respect of agriculture was not satisfactory. In respect of food grains, the target was fixed at 81 million tonnes, 100 million tonnes and 129 million tonnes during the Second Plan, Third Plan and Fourth Plan, but actually realized targets for the respective Plans were 80 million tonnes, 72 million tonnes and 104 million tonnes respectively showing shortfalls in realizing targets. Moreover, although the New Agricultural Strategy or Green Revolution was introduced during the Third Plan, but it failed to realize its targets during the Third and Fourth Plan. However, during the Fourth Plan, a systematic attempt was made for extending the application of science and technology for improving agricultural practices.

- **Phase II: (5th Plan – 8th Plan) (Period 1975 – 1997):**

  The Fifth Plan made sincere attempts for the development of agriculture and allied sectors and allocated an outlay of Rs 4870 crore (12 per cent of the total outlay). The actual production of food grains in the last year of the Fifth Plan reached 132 million tonnes as compared to its target of 125 million tonnes, and thus exceeded the targeted production for the first time. Again, the Sixth Plan was also successful in the agricultural front. The agricultural sector achieved the growth rate of 4.3 per cent as against the growth target of 3.8 per cent. This success was hailed by the Government as the Second Green Revolution. The Second Green Revolution introduced from 1983-1984 led to increased supplies of various inputs and services to farmers, agricultural extension and better management. Moreover, the Second Green Revolution spread to eastern and central states of the country. The Seventh and Eighth Plan also put special emphasis on the development of agriculture. These Plans undertook specific projects like Special Rice Production Programmes in the

eastern region, National Watershed Programme for Rainfed Agriculture, National Oilseeds Development Projects, Social Forestry etc. However, blessed with favourable weather and climatic conditions, most of the targets of the Eight Plan related to oilseeds, jute, sugarcane and cotton were fulfilled.

- **Phase III: (9th Plan – 11th Plan) (Period 1998 – 2012):**

  The Ninth Plan could not attain much success in respect of agriculture. During the Ninth Plan, the actual production of food grains was only 212 million tonnes as compared to its target of 254 million tonnes. In respect of production of oilseeds, sugarcane, cotton and jute, achievements were much below the targets. The index of agricultural production (1981-82 =100) increased from 165.3 in 1997-98 to 179.9 only in 2001-2002, showing a mixed performance during the Ninth Plan. The Tenth Plan adopted "Regionally Differentiated Strategy" for the development of agriculture along with sustainable development of natural resources. Accordingly, the Tenth Plan gave stress on reclamation of waste land, rain water harvesting and conservation and envisaged radical thrust in crop diversification. The Tenth Plan introduced schemes related to production, and distribution of quality seeds, fertilizers, plant nutrients, soil testing, pest management and farm tools and implements. The Tenth Plan also encouraged organic farming and use of organic fertilizer. The concept of 'inclusive growth 'introduced in the Eleventh Plan required a target growth of 4 per cent per annum in GDP from agriculture and allied services. The average annual growth rate of agriculture and allied sector during the first four years of the Twelfth Five Year Plan (2012-17) has been 1.6 per cent as against its target of 4 per cent per annum.

CHECK YOUR PROGRESS

Q.1: State whether the following statements are True or False:

a. The progress of Five Year Plans in India for agricultural development was always unsatisfactory. (T/F)

b. The Tenth Plan encouraged organic farming and use of organic fertilizer. (T/F)

Q.2: Briefly explain the progress of agriculture in the first phase of Five-Year Plans in India (Answer in around 70 words)

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7.4 MODERNIZATION OF AGRICULTURE

'Modernization of Agriculture' or 'Farm Mechanisation' or 'Mechanisation of Agriculture' indicates the use of machines for conducting agricultural operations replacing the traditional methods which involve human and animal labour. It is a process of replacing biological sources of energy involving animal and human labour to mechanized sources of energy which included various machines like tractors, threshers, harvesters, pumpsets etc. Mechanization may be either complete or partial.

Modernization of agriculture helps in utilizing efficiency of other inputs, safety and comfort of the agricultural workers, improvements in quality and value addition of the agricultural produce; it also enables farmers to raise a second crop, making agriculture commercial. However, the factors which are creating hurdles against the modernization of agriculture include mounting pressure of population on land, small and fragmented holding, acute poverty and ignorance among the farmers etc.

7.4.1 Benefits of Modernization of Agriculture

Modernization of agriculture provides certain benefits to the agricultural sector. They are

- Mechanization of farms has led to increase in the volume of agricultural production and productivity.
- Modernization of agriculture increases the labour productivity as the same output can be raised by lesser number of labourers.
- It has relieved the agricultural labourers from heavy works like land reclamation, ploughing, digging, carrying of soil etc.
- Large scale farming has become possible due to modernization of agriculture which has reduced the cost of production. It has made intensive cultivation successful and helped the farmers to follow multiple cropping in a suitable manner.
- Production of agricultural surplus has helped towards industrial development.

7.4.2 Cases aginst Modernization of Agriculture

Following are some of the arguments against modernization of agriculture:

- It reduces employment in agriculture.
- Mechanisation has led to regional disparities and has also raised interpersonal inequality.
- Due to existence of huge number of small and marginal farms in underdeveloped countries, modernization of agriculture is not possible under the present set up.

CHECK YOUR PROGRESS

Q.3: Define 'Modernization of Agriculture'. (Answer in around 30 words)

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Q.4: Give arguments in favour of modernization of agriculture. (Answer in around 50 words)

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7.5 GREEN REVOLUTION

'Green Revolution' or the 'New Agricultural Strategy' was adopted in India during the Third Five Year Plan, i.e. during the 1960s. During mid-1960s, Prof. Norman Borlaug of Mexico developed a new high yielding variety of wheat and accordingly various countries started to apply this new variety. In the Khariff season in 1966, India adopted High Yielding Varieties Programme (HYVP) for the first time. This programme was adopted as a package programme as the very success of this programme depends upon adequate irrigation facilities, application of fertilizers, high yielding seeds, pesticides, insecticides etc. In this way a new technology was gradually adopted in Indian agriculture. This new strategy is also popularly known as modern agricultural technology or green revolution.

Moreover, in the first phase of green revolution (approximately in the mid 1960s upto the mid 1970s), the use of HYV seeds were restricted to the more affluent states such as Punjab, Andhra Pradesh and Tamil Nadu. Further, the use of HYV seeds primarily benefited the wheat- growing regions only. In the second phase of green revolution (mid 1970s to mid 1980s), the HYV technology spread to a larger number of states and to more varieties of crops.

7.5.1 Achievements of Green Revolutions

Introduction of new agricultural strategy has certain arguments in its favour. They are discussed as follows:

- **Commercialization of Agriculture**: Green Revolution resulted in "Marketable Surplus". Marketable surplus refers to that part of agricultural produce which is sold in the market by the farmers after fulfilling their own consumption requirements.
- **Increase in Production**: The Green Revolution resulted in multiple rises in food production. It helped in recovering the country from regular food shortages. The use of High Yielding Varieties (HYV) of seeds brought manifold increase in production of food grains.

- **Increase in Income and Self-sufficiency**: Many industries producing chemicals, fertilizers, pesticides, machinery etc. were established as a result of Green Revolution. It increased the income of the farmers.

7.5.2 Shorts comings of Green Revolution

While the nation had immensely benefited from Green Revolution, the technology involved was not free from risks. Some negative impacts of the Green Revolution are discussed below:

- **Limited Crops**: The effect of Green Revolution was confined to limited crops like wheat, rice, bajra, maize etc. It had limited effect on commercial crops like tea, rubber, jute etc.
- **Regional Imbalance**: Coverage of Green Revolution has been only in Punjab, Haryana and Uttar Pradesh and thereby widened regional disparities. Therefore, the regions well endowed with resources and irrigation potential have benefitted mostly from the introduction of modern technology.
- **Unfavourable for Small and Marginal Farmers**: Small and Marginal farmers in India were not able to adopt new strategy due to their poor financial condition and poor credit worthiness. Their small land holdings were unfit for the use of modern technology. Besides, the HYV crops were also more prone to attack by pests.

7.5.3 Second Generation Green Revolution

Due to the failures of the Green Revolution mentioned above, the "Second Green Revolution" in India was introduced with the objective of attaining food and nutritional security of the people while at the same time augmenting farm incomes and employments through this new approach. This new approach included introduction of "New Deal" to reverse decline in farm investment through increased funds for agricultural research, irrigation and wasteland development. Outlining the strategy for realizing Second Green Revolution, former Prime Minister, Dr. Manmohan Singh observed that there was need to improve farm management practices to enhance productivity. This also required improvement in soil health, water conservation, credit delivery system and application of science to animal husbandry. There was also a sharper focus on strategic research in plant technology. The Union Budget, 2010-2011, in its strategy for agricultural growth, undertook the strategy to extend Second Green Revolution to the eastern region

of the country comprising Bihar, Chattisgarh, Jharkhand, Eastern UP, West Bengal and Odissa, with the active involvement of Gram Sabhas and the farming families.

CHECK YOUR PROGRESS

Q.5: Define 'Green Revolution' (Answer in around 20 words).

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Q.6: What is meant by Second Generation Green Revolution (Answer in around 30 words).

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7.6 ROLE OF AGRICULTURE IN DEVELOPING COUNTRIES

Despite their urge for industrialision, almost all developing countries of the world still continue to be heavily dependent on agriculture. The role of agriculture in the economic development of a developing country is evident from the following:

- **Source of Food Supply:** Due to heavy pressure of population in developing countries, the demand for food increases at a fast rate. If agriculture fails to meet the rising demand for food products, it adversely affects the growth of the economy. Raising supply of food by agricultural sector has, therefore, great importance for economic growth of a country. Valuable foreign exchange can also be saved which can be used for importing machinery and raw materials needed for industrialization and economic development.
- **Supply of Industrial Raw Materials:** Agriculture provides raw materials to various industries and thereby assists in the economic development of a country. Consumer goods industries like sugar, tea, jute, paper, cotton textiles, vegetables oils, oilseeds etc. get their raw materials from agriculture. The entire range of food processing industries is similarly dependent on agriculture. Thereby, by making adequate supply of necessary raw materials available to these industries, agricultural sector makes valuable contribution to economic development.
- **Ensuring Supply of Labour to Industry:** With the increase in agricultural productivity, the number of persons required to feed the country declines. This enables the 'extra' labour to migrate to cities and work in the industrial sector.
- **Employment Opportunities for Rural People:** Agriculture provides employment opportunities for rural people, mostly in developing countries. Moreover, a large number of landless workers and marginal farmers are engaged in food processing

industries, and making of agricultural implements. Hence, a large number of labour force still depends on agriculture.

- **Sources of Foreign Exchange Earnings:** Most of the developing countries export primary products which help them to earn foreign exchange. India's exports of agricultural goods consist of tea, coffee, rice, fish, cashew and tobacco.
- **Extension of Markets:** As a result of agricultural progress, there has been an extension of market for industrial products. As a matter of fact, increase in agricultural productivity leads to increase in the income of rural population which in turn leads to more demand for industrial products. Consequently, there is development of industrial sector paving the way for accelerating the rate of economic growth. In this way, the agricultural sector helps in promoting economic growth.

CHECK YOUR PROGRESS

Q.7: Define the role of agriculture as a source of food supply
(Answer in around 30 words).

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Q.8: How does agriculture act as a source of Foreign Exchange Earnings?
(Answer in around 30 words)

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7. 7 LET US SUM UP

- Development of agriculture, in the broad sense, is the core of all strategies of planned economic development.
- If the process of economic development is to be initiated and made self-sustaining, it must begin from agricultural sector.
- Five Year Plans in India made attempts for the development of the agricultural sector and accordingly tried to increase in the production of agricultural crops by fixing targets for respective plan period.
- 'Farm Mechanisation' or 'Mechanisation of Agriculture' indicates the use of machines for conducting agricultural operations replacing the traditional methods.
- Modernization of agriculture has many benefits, which includes increasing safety and comfort of the agricultural workers, improvements in the quality and value addition of the agricultural produce and also enabling farmers to raise a second crop making agriculture commercial.

- The hurdles against modernization of agriculture include mounting pressure of population on land, small and fragmented holding, acute poverty and ignorance among the farmers etc.
- 'Green Revolution' or the 'New Agricultural Strategy' was adopted in India during the Third Five Year Plan, i.e. during mid-1960s.
- India adopted High Yielding Varieties Programme (HYVP) for the first time which brought manifold increase in the production of land in respect of food grains.
- However, the effect of Green Revolution was confined to limited crops like wheat, rice, bajra, maize etc. It has limited effect on commercial crops like tea, rubber, jute etc.
- Green Revolution further increased the income inequalities in the villages.
- The "Second Green Revolution" in India was introduced to extend benefit of agricultural development to more crops and more regions of the country.
- Agriculture provides employment opportunities for rural people on a large scale in developing countries.
- The rising agricultural surplus caused by increasing agricultural production and productivity tends to improve social welfare, particularly in rural areas. The living standard of rural masses rises.

7. 8 FURTHER READING

- Agarwal, R.C., Economics of Development & Planning, First edition, 2002
- Dhar, P.K., Indian Economy: Its Growing Dimensions, Kalyani Publishers, 2014
- Lekhi, R.K., Development Economics, Kalyani Publishers, 2013
- Meier, G.M., & James E. Rauch, Leading Issues in Economic Development, Eight Edition, 2009
- Ray, Debraj, Development Economics, 2002
- Thirwall, A.P., Economics of Development, Ninth Edition, 2011
- Todaro, Michael P. and Stephen C. Smith, Economic Development, Tenth Edition, 2009

7.9 ANSWER TO CHECK YOUR PROGRESS

Ans to Q.1: a. False

b. True

Ans to Q.2: The first phase refers to the period from the First Plan to the Fourth Plan. The First Plan tried to solve the food problem that India was facing and tried to increase agro raw materials like raw jute, raw cotton, oil seeds etc. However, the progress

achieved during the Second Plan, Third Plan and Fourth Plan in respect of agriculture was not satisfactory. The realized targets for the Plans were 80 million tonnes, 72 million tonnes and 104 million tonnes respectively showing shortfalls in targets. Moreover, although Green Revolution was introduced during the Third Plan, it failed to realize its targets during the Third and Fourth Plan. However, during the Fourth Plan, a systematic attempt was made for extending the application of science and technology for improving agricultural practices.

Ans to Q.3: It is a process of replacing biological sources of energy involving animal and human labour to mechanized sources of energy which included various machines like tractors, threshers, harvesters, pumpsets etc. Modernization of agriculture involves the use of different machineries in farming operations right from ploughing to marketing.

Ans to Q.4: Modernization of agriculture increases the labour productivity as the same output can be raised by fewer labourers. It has relieved the agricultural labourers from heavy works like land reclamation, ploughing, digging, carrying of soil etc. Large scale farming has become possible due to modernization of agriculture which has reduced the cost of production. It has made intensive cultivation successful and has helped the farmers to follow multiple cropping in a suitable manner.

Ans to Q.5: In 1966, India adopted the High Yielding Varieties Programme (HYVP) for the first time. This programme was adopted as a package programme as the very success of this programme depended upon adequate irrigation facilities, application of fertilizers, high yielding seeds, pesticides, insecticides etc. In this way a new technology was adopted in Indian agriculture. This new strategy is also popularly known as modern agricultural technology or Green Revolution.

Ans to Q.6: Due to the failures of the Green Revolution to spread to all regions and to all crops, a new strategy called the Second Green Revolution was introduced in India. This approach aimed at creating sustainable livelihood security for the poor and eradication of poverty by generating gainful self-employment.

Ans to Q.7: Due to heavy pressure of population in developing countries and its rapid increase, the demand for food increases at a fast rate. If agriculture fails to meet the rising demand for food products, it adversely affects the growth rate of the economy. Raising supply of food by agricultural sector has, therefore, great importance for the economic growth of a country.

Ans to Q.8: Most of the developing countries export primary products which help them to earn foreign exchange. India's exports of agricultural goods consist of tea, coffee, rice, fish, cashew and tobacco. If exports of agricultural goods fail to increase at a

sufficiently high rate, these countries are forced to incur heavy deficit in the balance of payments resulting in a serious foreign exchange problem.

7. 10 MODEL QUESTIONS

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

Q1: Explain the role of agriculture in capital formation.

Q2: Briefly explain the progress of agriculture after the Eight Five Year Plan.

Q3: Analyze the strategy of Second Green Revolution in India.

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

Q1: Explain the role of agriculture on the economic development of a country.

Q2: Explain the impact of new agricultural strategy on Indian economy.

Q3: Explain the progress and benefits of farm mechanization in a developing economy.

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UNIT 8: ROLE OF INDUSTRY IN ECONOMIC DEVELOPMENT

UNIT STRUCTURE

8.1 Learning Objectives

8.2 Introduction

8.3 Growth of Indian Industry during Planning Period

8.4 Industrial Policies in India

8.5 Problems of Industrial Development in India

8.6 Role of Industries in Developing Countries

8.7 Let Us Sum Up

8.8 Further Reading

8.9 Answers to Check Your Progress

8.9 Model Questions

8.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- understand the growth of Indian industries during the Plan period
- learn about the different programmes and initiatives for industrial development under the Plans
- study about industrialisation in India in the light of new economic policy regime
- learn about the role of Industries in developing countries

8.2 INTRODUCTION

The industrially advanced countries are usually referred to as developed countries whereas agricultural countries are considered developing/underdeveloped countries. Though this is a myth, this distinction is usually found to be true and these industrially developed countries are seen to grow faster. Industries provide a market for both producer and consumer goods from other sectors of the economy. In case of producer goods, industries buy raw materials from the primary sector and services from the tertiary sector; at the same time, industrial workers buy consumer goods from the other sectors. Thus, by providing a market to these sectors, industries facilitates development of a country.

Under British rule, India became stagnant in terms of industrial development. However, after independence, Five Year Plans were formulated which started giving priority to the industrial sector.

8.3 GROWTH OF INDIAN INDUSTRIES DURING THE PLAN PERIOD

India was industrially well advanced compared to western countries before the advent of the British rulers. But during their tenure, there were no effort to develop large scale industries and thus India became a colony supplying raw materials to the manufacturing industries of the British. India's first Prime Minister, Pandit Jawaharlal Nehru, considered industrialisation as the key to poverty alleviation. He realised that industrialisation would not only lead to self sufficiency but also enable him to regain political sovereignty and the economy would benefit from external economies accruing from technical progress.

The Planning Commission set up in 1950 has been formulating Five Year Plans for India's development taking an overall view of the needs and resources of the country. The **First Five Year Plan (1951-1956)** did not put much emphasis on industrialisation. However the **Second Five Year Plan (1956-1961)** aimed at achieving rapid industrialisation of the country and focussed on the growth of basic and heavy industries. Based on the Mahalanobis Model, the Second Five Year Plan started the task of establishing basic and capital goods industries on a large scale. Three steel plants of one million tonnes capacity were set up in the public sector at Bhilai, Rourkela and Durgapur in addition to modernisation programmes undertaken for private sector industries. The **Third Five Year Plan (1961-1966)** carried forward the process by giving emphasis on expansion and diversification of capacity of the heavy industries. In the Third Plan, 20.1 percent of total expenditure was for industry. The Indian economy was in a bad shape at the end of the Third Plan and instead of the Fourth Plan, three Annual Plans were initiated. Not much development took place during the **Fourth (1969-1974)** and **Fifth Plans (1974-1978)**. The Fourth Plan was launched during the Indira Gandhi government. The economy was passing through a period of drought, devaluation and inflationary recession along with population explosion, increased unemployment and poverty. During this time, the Indo-Pakistani War of 1971 and Bangladesh Liberation War took place. And the funds earmarked for this Plan for industrial development had to be used for war effort. The Oil Crisis of 1973 led to high rise in the price of oil and fertiliser prices leading to very high inflation. The main stress during the Fifth Plan was rapid growth of steel plants, export-oriented articles and goods of mass consumption. The steel plants at Salem, Vijaynagar and Vishakhapatnam were proposed to create additional capacity. The Steel Authority of India (SAIL) was constituted during this period. During the Fifth Plan, against the targeted growth rate of 8.1 per cent in the industrial sector, the annual growth rate was only 5.3 per

cent. The main factors responsible for this slow growth of industrial production were-lack of capacity in industries, shortage of power, transport and fuel, unremunerative administered prices and poor management. The **Sixth Five Year Plan (1980-1985)** was undertaken during the time of Prime Minister Rajiv Gandhi. He emphasised on industrial development, especially on the information technology sector. Science and technology made significant advance during this period. One of the major hindrances in the way of development during this Plan was the boom in Indian population. However, after several successful programmes and investments on improvement of health care, infant mortality reduced and life expectancy increased. The objective of the **Seventh Plan (1985-1990)** was to achieve growth with social justice and to improve productivity. This Plan provided an investment of Rs 22,406 crore, i.e., 12.5 per cent of the total Plan outlay, in the industrial sector. To promote industrial production, emphasis was put on easing infrastructural constraints, liberalisation of industrial licensing policy and other regulations and provisions for rapid development of industries. The Plan achieved a growth rate of 8.5 per cent against the target growth of 8.7 per cent. The factors which helped in better industrial growth include better infrastructure, changes in licensing policies and procedures, import of technology and capital goods, better utilisation of installed capacities, etc. Due to political turmoil at the centre, fiscal imbalances and also due to global economic changes, the **Eighth Five Year Plan (1992-1997)** could not take off in 1990. Instead 1990-1991 and 1991-1992 were treated as separate annual plans. The Eleventh Plan was launched immediately after the initiation of structural adjustment policies and macro economic reforms; hence the main thrust of this Plan was to improve efficiency in production and a review of public sector enterprises to improve efficiency. From the Eighth Plan, the private sector started playing an increasingly important role. After the initial setback of the industrial sector in 1992-93, from 1993-1994 to 1996-1997, the industrial production increased at the rate of 8.6 per cent per annum. The target for industrial growth in the **Ninth Plan (1997-2002)** was 8.2 per cent per annum. The main focus of the Plan was on building adequate infrastructural facilities. Further, to increase foreign direct investment, the Plan proposed to increase the number of industries in which automatic approval was granted. Steps were taken to increase the number of industries in backward areas. The Plan also took steps for industrial development of North Eastern Region. The Public Sector Enterprises (PSEs) were divided into three categories –

- Profit makin PSEs,
- PSEs making only marginal profits and losses, and
- PSEs incurring substantial losses.

The first category would receive increased financial and managerial autonomy; the second category was to be given limited budgetary support to enable them to stand on their own feet; and hard steps would be taken in case of the third category. In respect of small-scale industries, the Ninth Plan advocated dereservation. The Plan proposed a number of steps to solve the problem of credit shortage of these industries. However, the performance during the first two years, i.e., during 1997-1998 and 1998-1999 fell short of the projected average growth. Very little progress was made in respect of several areas of industrial reforms including disinvestment of PSEs, closure of nonviable PSEs, etc.The **Tenth Five Year Plan (2002-2007)** proposed a growth rate of 10 per cent for the industrial sector. The Plan put emphasis on modernisation and upgradation of technology and on balanced regional development. For balanced industrial development, special industrial policy packages were announced for Uttaranchal, Himachal Pradesh, Jammu & Kashmir and North East States. Other steps taken during this Plan include creating investor-friendly climate, evolution of Growth Centre Scheme, quarterly performance review, experience sharing between states, identification of frontier technologies nano technology, information and communication technologies, formulation of National Export Insurance Account for Project Exports and testing facilities in Auto Sector. However, the economy rate of only 5.9 per cent during the Plan period. At the time of the **Eleventh Five Year Plan (2007-2012)**, the economy was in a relatively better position because of the progress achieved in many sectors of the economy, mostly because of the emergence of a strong middle class and new entrepreneurs, reforms in different spheres, and Private-Public Participation (PPP) projects. Emphasis was on agriculture, improvement on health and education and increasing role of the private sector. India had an average annual economic growth rate of 8 percent during the Eleventh Plan compared to the targeted 9 per cent. And the growth rate of industrial sector stood at 7.2 per cent against the target growth rate of 10-11 per cent. The main objective of the **Twelfth Five Year Plan (2012-2017)** is on 'inclusive growth' which means a simultaneous development of agriculture, education, health, industry, social welfare.

CHECK YOUR PROGRESS

Q1: When was the First Five Year Plan implemented in India? (Answer in around 20 words)

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Q2: On which model was the Second Plan based? (Answer in around 20 words)

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Q3: What were the problems facing India during the implementation of the Fourth Plan? (Answer in around 50 words)

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LET US KNOW

As per Industry Resolution, 1956, 17 industries were reserved for public sector. But the New Industrial Policy 1991 reduced the number of such industries to 8 which included arms and ammunitions, atomic energies, mineral oils, coal and ignite and rail transport. At present only 3 industries are reserved exclusively for public sector in India. They are – atomic energy, minerals specified in the schedule to the atomic energy (control of production and use order) 1953, and rail transport,.

8.4 INDUSTRIAL POLICIES IN INDIA

At the time of independence, India had an extremely underdeveloped and unbalanced industrial structure. There were a few industries like cotton textiles, jute and sugar but no basic, heavy and capital goods industries. After independence, the Government of India undertook several steps for rapid development of capital goods industries. The major objectives of industrial policies undertaken were-

- Rapid industrial development of the country,
- A balanced industrial structure,
- Prevention of concentration of economic power,
- Balanced regional growth of the country.

The Industrial Policy of 1948, which was the first industrial policy statement of the Government of India, was changed in 1956 to a public sector dominated industrial development policy which continued till 1991 with some minor modifications and amendments in 1977 and 1980. It was only in 1991, various changes were made in the industrial policy of 1956. The New Industrial Policy of 1991 is the foundation of industrial development at present.

The pre 1991 industrial policies created the climate for rapid industrial growth in the country. At the time of independence, the consumer goods industry constituted half of industrial production whereas in 1991, it fell to about 20 per cent. Whereas capital goods

industries went up to 24 per cent in 1991 of total industrial production from 4 per cent at the time of independence. Over the years, the Government built up infrastructure required by the industrial sector and made investments for power, communication, roads, etc. however, the industrial licensing practised led to inefficiency and corruption. Although the Government announced a number of liberalisation measures in 1970 and 1980, it was only in the industrial policy of 1991 that dramatic liberalisation efforts were made.

The Industrial Policy of 1991 emphasised on substantial economic growth and integration with the global economy. This Policy reduced the industrial licensing requirements, removed restrictions on investment and expansion, and facilitated easy access to foreign technology and foreign direct investment.

8.5 PROBLEMS OF INDUSTRIAL DEVELOPMENT IN INDIA

Despite more than six decades of the formulation and implementation of Indian Planning, changes in industrial policies, industrial development cannot be said to be satisfactory in India. There are a number of factors causing problems to the industrial development in the country, some of which are mentioned below:

- **Poor infrastructure:** One of the major constraints of industrial development in India is poor quality and high cost of infrastructural development, particularly power and transport network. Infrastructural constraints not only adversely affect industrial growth but also reduce the competitiveness among the industries.
- **Under utilisation of capacity:** There are vast differences in the estimated capacity and actual capacity in the Indian industries. These gap varies from 20-30 to 60-70 percent. Therefore, there exists under utilisation of the capacity of the industries. This leads to underutilisation.
- **Poor performance of public sector:** During the Plan period there has been substantial efforts to develop the industrial sector, which were mostly concentrated on public sector industries. But the performance of public sector enterprises were not good as they are not governed by only profit motives; rather they are liable to fulfil certain socio economic objectives which may even incur losses.
- **Growth of regional imbalance:** Industrial development in India has occured in a few states while large number of states continue to lag behind.
- **Sickness caused by Administrative and Bureaucratic Complexities:** Before liberalisation, there were more interferences and restrictions for the industries. Even after liberalisation, numbers of industries are sick due to bad and inefficient management.

CHECK YOUR PROGRESS

Q4: What are the main objectives of Industrial Policies in India?
(Answer in around 30 words)

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Q5: State two striking features of the Industrial policy of 1991.
(Answer in around 30 words)

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8.6 ROLE OF INDUSTRIES IN DEVELOPING COUNTRIES

Industrialisation plays a very important role in economic development of a country. In fact establishment of industries is a pre requisite for economic development as the history of advanced countries reveal. Share of industrial sector should increase compared to agriculture during the development process. Policy framework in favour of industrialisation results in benefitting the industrial sector; these benefits are likely to trickle down to the other sectors which leads to increase in employment, output and income.

Even agriculture dominated economies, need industrial development for proper and adequate supply of fertilisers, farm machinery and other inputs to increase efficiency. Use of modern techniques and sophisticated equipments can increase the productivity of agriculture, leading to an increase in the per capita output of the farm sector.

Industrialisation is necessary to provide employment to the underemployed, disguised unemployed and seasonal unemployed who are engaged in the agriculture without making any addition to the per capita production. Thus industries can work as an alternative avenue for those disguised and seasonal unemployed commonly seen in the LDCs.

Industrialisation works as the bridge between the rural stagnant economies and the urban dynamic economy. It also creates multi skilled nature of works and division of labour based on skill and training.

In developing countries, there is a frequent fluctuation in the prices of primary goods due to their nature of demand and durability. This issue can be addressed by industrialisation, which creates demand for the primary perishable goods and convert them into manufacturing goods which are mostly non perishable.

Industries also play an important role in supplementing export of the developing countries. The less developed countries (LDCs) need a sizable export to maintain a proper balance of trade. Unless there is industrial development, they cannot increase their export volume.

Thus, industries are important in the developing countries for utilisation of natural resources, balanced sectoral development, and increase in job opportunities and also as a supplementary industry to the agriculture sector.

It is seen that industries are very important to develop in the developing countries for rapid economic development. It is not to be considered as the substitute to the agricultural sector; rather, both the sectors are complimentary to each other. Industrialisation is the key to bring diversification to the economy of the LDCs. However, there should be regional balance in industrial development for equal development of the country and also emphasis has to be put on the capacity utilisation so that all the categories of industries grow in a equitable manner.

Rapid and indiscriminate industrial growth has some negative impact which may affect development adversely. Some hazardous industries or even ill maintained normal industries create pollution reducing productivity of the other factors including land.

Thus, while undertaking policies for industrialisation of a country, proper care should be taken so that it does not lead to regional imbalance or adversely affects the sustainable development goals.

8 .7 LET US SUM UP

- Many development thinkers identify industrially advanced countries as developed and agriculture dominated countries are underdeveloped.
- Being a developing country, India has been emphasising on industrial development right from the independence.
- During planning regime there were some initiatives right from the First Plan which started in 1951
- In line with the liberalisation measures, the Government announced the New Industrial policy of 1991, which emphasised on the important role of private sector industries. Except the fields where the security question is not important, private sector was encouraged. Public sector is expected to concentrate only on basic and core sectors.
- Different phases can be identified throughout the plan period in terms of industrial growth and pattern in India.

- The Industrial Policy 1948, which was the first in independent India, was replaced by Industrial Policy Resolution, 1956, which brought major changes in the industrial structure of the country.
- The prime objective of the New Industrial Policy, 1991 was to "unshackle the Indian industrial economy from the cobwebs of unnecessary bureaucratic controls".
- There are number of factors causing problems to the industrial development in the country such as poor infrastructure, under utilisation of capacity, poor performance of public sector enterprises, regional imbalances, etc.

8.8 FURTHER READING

1. Puri VK & Mishra SK: Economics of Development and Planning, Himalaya Publishing House, 2016.
2. Jhingan, M.L.: The Economics of Development & Planning, Konark Publishers Pvt. Ltd., New Delhi
3. Raj F, Mukherjee M, Ghose A, Nag RN: Contemporary Development Economics, New Central Book Agency (P) Ltd., Kolkata, 2011
4. Puri VK & Mishra SK: Indian Economy – its development experience, Himalaya Publishing House, 2016.
5. Dhar, P.K.: Indian Economy-Its Growing Dimensions, Kalyani Publishers, Ludhiana, 2013.

8. 9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q1: The First Five Year Plan was implemented in India in 1951 and continued till 1956.

Ans to Q2: The Second Plan was based on the Mahalonobis Growth Model which emphasised on rapid industrialisation of India.

Ans to Q3: The Fourth Plan was launched during the Indira Gandhi government. The economy was passing through a period of drought, devaluation and inflationary recession along with population explosion, increased unemployment and poverty. During this time, the Indo-Pakistani War of 1971 and Bangladesh Liberation War took place. And the funds earmarked for this Plan for industrial development had to be used for war effort. The Oil Crisis of 1973 led to high rise in the price of oil and fertiliser prices leading to very high inflation.

Ans to Q4: The major objectives of industrial policies in India are:

1. Rapid industrial development of the country,

2. A balanced industrial structure,
3. Prevention of concentration of economic power,
4. Balanced regional growth of the country.

Ans to Q 5: The Industrial Policy of 1991 emphasised on substantial economic growth and integration with the global economy. This Policy reduced the industrial licensing requirements, removed restrictions on investment and expansion, and facilitated easy access to foreign technology and foreign direct investment.

8. 10 MODEL QUESTIONS

Q1: Describe the industrial growth during the plan in India

Q2: How did the pattern of Indian industrial structure change throughout the plan period in India?

Q3: Since which plan New Industrial Policy was announced? Justify the reason for recent short fall of target to achieve for industrial growth.

Q4: Explain the role of industries in developing countries?

Q5: What are the constraints for the industrial development in India?

Q6: How industry can be complementary to the agriculture sector?

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UNIT- 9: POPULATION AND ECONOMIC DEVELOPMENT

UNIT STRUCTURE

9.1 Learning Objectives

9.2 Introduction

9.3 Malthusian Theory of Population

9.4 Theory of Demographic Transition

9.5 Malthusian view and Kuznet-Simon-Boserup view on Population and Development.

9.6 Impact of Population on Economic Development

9.7 Let us Sum up

9.8 Further Reading

9.9 Model Questions

9.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- understand the Malthusian Theory of Population
- learn about the Theory of Demographic Transition
- make a comparison between Malthusian view and Kuznet-Simon-Boserup view on population and development.
- learn about the Impact of Population Growth in Development

9.2 INTRODUCTION

There is a mutual relationship between economic growth and population – on one end economic growth affects population growth and at the other end, pace of population growth affects economic growth. Putting the importance of population growth on economic growth and development, classical economists were of the view for an optimum level of population. The size of the population at which the per capita income is highest is called the **optimum population** up to which population growth is desirable**.** It was Malthus, who pioneered the analysis regarding the relationship between the population growth and economic growth.

9.3 MALTHUSIAN THEORY OF POPULATION:

Malthus discussed his views on population growth and development in his book "An Essay on the Principle of Population' which was first published in 1798. The theory states that population tends to increase in geometric progression (1, 2, 4,8,16.....) while

food supply increases in arithmetic progression (1, 2, 3, 4,.....). Therefore, Malthus asserted that population would outstrip food supply every twenty five years creating food scarcity. This leads to poverty and misery in the society. Thus economic development is limited unless effective measures are undertaken to check population growth.

Malthus mentioned two types of measures which can limit population growth – preventive check and positive check. Preventive checks are those checks which are applied by man. These are policy measures to control the birth rate including usage of contraceptives, late marriage, etc. or some moral restraints. Positive checks to population growth are things that shorten the average life span, such as disease, extreme poverty, warfare, famine and poor living and working environments. They all shorten human life and increase the death rate. Malthus recommended the use of preventive checks if mankind was to escape from misery. If preventive checks were not effectively used, positive checks would come into effect and population would be reduced to the level which can be sustained by the available quantity of food supply.

Criticism of Malthusian Approach:

Malthus has been criticised mainly for his pessimistic view on population growth. Moreover, his theory is not sound on the following grounds.

- As Malthus pointed, there is no practical evidence that population grows at geometric rate and food supply at arithmetic rate. Food may be grown even more than population if there is technological improvement.
- As Malthus assumed, diminishing returns is not always applicable in agriculture.
- His view about emergence of positive check of population cannot be related to population growth. Some natural calamities emerge without population growth too.

Malthus's Theory of Population, though theoretically not so sound, has been quite popular and relevant in the developing countries. Though he has been criticised for his pessimistic views on population, his ideas are still considered to be of great significance in most of the developing nations. Due to his emphasis on preventive measures to control birth rate, he is often termed as the father of modern family planning.

CHECK YOUR PROGRESS

Q1: State the Malthusian Theory of Population. (Answer in around 20 words)

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Q2: What are the two checks Malthus mentioned to control population growth? (Answer in around 70 words)

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9.4 THEORY OF DEMOGRAPHIC TRANSITION:

The theory of demographic transition explains the process how every developing nation passes through three stages of demographic transition. These phases are self driven during the course of development of every country.

Stage-I is the phase when the country has a stable population as a result of high birth rate and high death rate. The death rate in this stage is high because the society is in an underdeveloped situation, where there are no modern facilities to minimise the health related challenges and to fullfill the nutritional needs to lead a healthy life. Birth rates are high because of social beliefs and customs against birth control measure, early age of marriage, etc. More children mean more economic strength of the family and security of the parents in old age. Thus both high birth rate and death rate maintains a stable population growth.

Stage-II begins with the introduction of modernized health care, spread of education and improved living conditions bringing down the death rate and a slow, or practically no reduction in birth rates, leading to high growth of population. In this stage, there is divergence between birth rate and death rate because though improved living conditions bring down death rate, it can't bring down the fertility rate immediately. This period is called the period of 'population explosion'. This phase is the worst phase for an economy in the process of transformation from an agrarian under-developed economy to a developed economy.

Of course, modernization brings in the final stage (stage - III) of demographic transition when the decline in fertility rate brings down the birth rate also and makes population growth rate stable. The development of economic roles for women outside the house brings in the small-family trend.

The three stages of demographic transition can be graphically presented as below where the horizontal axis represents the time and vertical axis measures the birth and death rates.

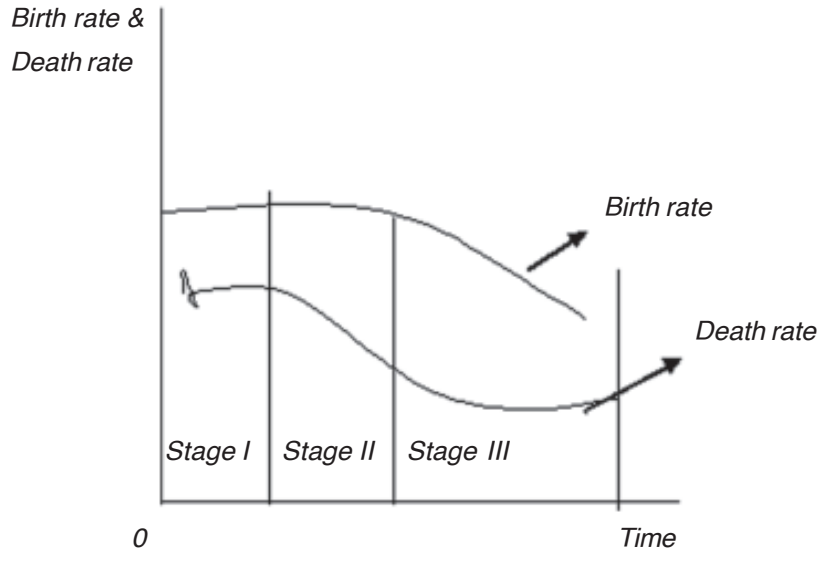


Figure 1: Three stages of Demographic Transition

As can be observed from the diagram, birth rate starts declining after stage - II of transition, death rate starts falling earlier than it and also more rapidly for which there is divergence between the two. However, by the later part of 3rd stage, the gap is reduced due to fall in birth rate and stable death rate.

9.5 MALTHUSIAN VIEW VERSUS KUZNET-SIMON-BOSERUP VIEW ON POPULATION GROWTH:

Some alternative views on population growth can be observed against Malthusian views in modern times. Kuznets and Simon, and later on Boserup explored the ideas of supply driven and demand driven effects of population on technical progress. We can see two categories of effects of population growth on technical progress. First, population growth can spur technical progress out of the pressures created by high population density. This is the demand driven view explored by Boserup (1981). Second, population growth creates a larger pool of potential innovators whose innovations may be useful for the economy. This is the supply driven views by Simon (1977) and Kuznets (1960).

LET US KNOW

Ester Boserup (1910–1999), a Danish economist challenged Malthus's conclusion that the size of the human population is limited by the amount of food it can produce. She suggested that food production can, and will, increase to match the needs of the population. From the perception of Boserup, it is true that scarcity drove man to innovate, to create, or to apply the methods of production that accommodated the increased population by a quantum jump in food output.

There is a common idea in the views of these three economists. Demand driven views of Boserup argue that the increased population density creates demand for food; Kuznet and Simon were of the view that due to increased population, there will be more innovators which will benefit the economy; Malthusian view considers that food scarcity caused by population growth keeps population steady through positive and preventive checks.

Malthusian views are mostly pessimistic while Kuznet, Simon, Boserup analysed the same thing from optimistic perspective. They put due importance on technological progress and innovation by manpower.

CHECK YOUR PROGRESS

Q3: State the Theory of Demographic Transition. (Answer in around 30 words)

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Q4: Which period in the Theory of Demographic Transition is referred to as the period of 'population explosion'? (Answer in around 20 words)

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Q5: Briefly explain the theory of Demographic Transition. (Answer in around 70 words)

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LET US KNOW

- At present, China tops in the world in terms of population followed by India. However, China's One Child Policy introduced in 1979 has been having a positive effect and it is expected that by 2028, India will surpass China to become largest populated country in the world unless adequate population policy is undertaken in India.
- China and India together account for 36.41% of total world population. Among Asian countries combined share of both countries is 61.07%.
- In terms of geographical area, China is placed 4th in the world while India placed in 7th in the world.

9.6 EFFECTS OF POPULATION ON ECONOMIC DEVELOPMENT

The negative impacts of population on economic development are as follows:

- Adversely effects Employment and Agricultural Productivity
- Causes shortage of food supply
- Has an adverse impact on Per Capita Income
- Over population affects capital formation and creation of socio-economic overheads.
- Adversely effects environment.

However, we can also highlight some positive impact of population on economic development

- As Boserup points out, increased density of population creates demand for food products.
- Population is the source of innovation.
- Plenty of young population favours the workforce of the country which is called population dividend.
- Helps adequate utilization of natural resources.

Thus population growth has both positive and negative aspects. And only population growth does not affect the development process, it is also affected by development. As seen from the theory of demographic transition, in a developed, modernized economy, population has a stable rate of growth, while in the intermediary stage of development, population grows at a very high rate. Thus, the relation is a twofold one where both population growth and economic growth affects each other. on population growth (Answer in around 50 words)

CHECK YOUR PROGRESS

Q6: State Boserup's views on population growth. (Answer in around 50 words)

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Q7: Mention the negative impact of population growth on economic development. (Answer in around 50 words)

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9.7 LET US SUM UP

- Economic growth and population are interrelated.
- There are conflicting views on the impact of population growth on development – both pessimistic and optimistic views have been put forward.
- The Malthusian approach states that population tends to increase in geometric progression while food supply increases in arithmetic progression. Thus population doubles every twenty five years creating food scarcity. This leads to poverty and misery in the society.
- The theory of demographic transition explains the process how every developing nation passes through three stages of demographic transition.
- Stage-I is the phase when the country has a stable population as a result of high birth rate and high death rate.
- Stage-II begins with introduction of modernized health care, spread of education and improved living conditions bringing down the death rate and a slow, or practically no reduction in birth rates, leading to high growth of population.
- In Stage III, both birth rate and death rates come down.
- Though the two approaches -Malthusian views and Kuznet-Simon-Boserup views are contradictory, they are also complimentary in the sense that if we analyse from both perspectives, we can draw both positive and negative impact of population growth on development.

9.8 FURTHER READING

1. Ray, Devraj: Development Economics, Oxford University Press, 2008
2. Todaro M.P. & Smith S.C.: Economic Development, Pearson, 2014
3. Puri VK & Misra SK: Economics of Development and Planning, Himalaya Publishing House, 2016.
4. Raj F, Mukheree M, Ghose A, Nag RN: Contemporary Development Economics, New Central Book Agency (P) Ltd., Kolkata, 2011

15.7 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q.1: The theory states that population tends to increase in geometric progression (1, 2, 4,8,16.....) while food supply increases in arithmetic progression (1, 2, 3, 4,.....).

Ans to Q.2: Malthus mentioned two types of checks to limit population growth – preventive check and positive check. Preventive checks are policy measures to control the birth rate including usage of contraceptives, late marriage, etc. or some moral restraints. Positive checks to population growth are things that shorten the average

life span, such as disease, extreme poverty, warfare, famine and poor living and working environments. They all shorten human life and increase the death rate.

Ans to Q.3: The theory of demographic transition states the process how every developing nation passes through three stages of demographic transition. These phases are self driven during the course of development of every country.

Ans to Q.4: The Second Period in the Theory of Demographic Transition is referred to as the period of 'population explosion'.

Ans to Q.5: The theory of demographic transition explains the process how every developing nation passes through three stages of demographic transition. Stage-I is the phase when the country has a stable population as a result of high birth rate and high death rate. Stage-II begins with the introduction of modernized health care, spread of education and improved living conditions bringing down the death rate and a slow, or practically no reduction in birth rates, leading to high growth of population. In the Third stage decline in fertility rate brings down the birth rate and makes population growth rate stable.

Ans to Q.6: Ester Boserup suggested that food production can, and will, increase to match the needs of the population. From the perception of Boserup, it is true that scarcity drove man to innovate, to create, or to apply the methods of production that accommodated the increased population by a quantum jump in food output.

Ans to Q.7: The negative impacts of population on economic development are as follows:

- Adversely effects Employment and Agricultural Productivity
- Causes shortage of food supply
- Has an adverse impact on Per Capita Income
- Over population affects capital formation and creation of socio-economic overheads.
- Adversely effects environment.

9.10 MODEL QUESTIONS

Short Questions (Answer each question in around 75 words)

Q1: What is meant by optimum population?

Q2: Mention two positive impact of population growth on economic development.

Q3: Explain briefly the second stage of the Theory of Demographic Transition.

Long Question (Answer each question in around 300-500 words)

Q1: What are the two views of impact of population growth on technological progress?

Q2: Distinguish between the Malthusian views and Kuznet-Simon-Boserup views on population growth.

Q3: How does population growth affect the development process of a country ?

*** ***** ***

UNIT 10: CAPITAL FORMATION AND ECONOMIC DEVELOPMENT

UNIT STRUCTURE

10.1 Learning Objectives

10.2 Introduction

10.3 Meaning of Capital formation

10.4 Significance of Capital formation

10.5 Causes of Low Capital Formation in Developing Countries.

10.6 Conclusion

10.7 Let Us Sum Up

10.8 Further Reading

10.9 Answers to Check Your Progress

10.10 Model Questions

10.1 LEARNING OBJECTIVES

The developing countries are trying to accelerate their capital formation for rapid economic development.

After going through this unit, you will able to-

- understanding what is meant by capital formation
- know the importance of capital formation in economic development of the developing countries.
- understand the factors responsible for low capital formation in the less developed countries.

10.2 INTRODUCTION

One of the pre requisites of economic development is capital formation. Less developed countries suffer from capital deficiency and low rate of capital formation which limits the pace of economic growth and development of these countries. According to Prof. Nurkse, the vicious circle of poverty in the LDCs can be broken with the help of adequate capital formation. There is a need for the sacrifice of present consumption goods for obtaining more consumable goods in future. Capital formation requires curtailing present needs and accumulating it for future production. Therefore, capital formation is considered as one of the central objectives of many development strategies. Since capital is a man made factor of production, its supply can be increased, or its quality can be

improved by increasing its productive capacity through human efforts. Therefore it is very significant to study the various aspects relating to capital formation.

10.3 MEANING OF CAPITAL FORMATION

According to Prof Colin Clark, 'capital formation refers to the net addition made to the existing stock of capital in a given period of time'. Capital formation thus refers to increasing the stock of real capital which helps in raising the level of production of goods and services. Therefore, capital formation means a diversion of a part of society's currently available resources to increase consumable output in future. As Nurkse said, 'the meaning of capital formation is that a society does not apply the whole of its productive capacity to the needs and desires of immediate consumption, but directs a part of it to the making of capital goods, tools and instruments, machines and transport facilities, plant and equipments – all the various forms of real capital that can so greatly increase the efficacy of productive effort. The term is sometimes used to cover human as well as material capital: it can be made to include investment in skill, education and health – a very important form of investment'.

Capital formation can be defined in narrow sense as well as broader sense. In the narrow sense, it includes only the investment in material or physical capital such as building roads and transport facilities, construction of railways, irrigation facilities to increase the agricultural productivity, etc. In the broader sense, along with investment in such material capital, it also includes investment in human capital such as spending on education, health, nutrition, etc. As Singer defines, capital formation consists of both tangible goods like plants, tools and machinery and intangible goods like standard of education, health, scientific tradition and research.

LET US KNOW

Capital is different from other resources in general. It is manmade and not in use only for present production, rather for future production. It is formed out of own savings or taken on credit. Capital may or may not have present use, but have potentiality in future. Students are a form of capital because in future they are expected to give return to the society. Capital may be tangible or intangible. Capital may be also divided into physical or material capital and human capital. Capital may be money acquired in advance to pay various factors of production, or it may consist of infrastructure, buildings, roads, power supply, etc.

10.4 SIGNIFICANCE OF CAPITAL FORMATION:

Economic development depends to a significant extent on capital formation. It is one of the crucial factors in overall performance of the development process of a country, especially the less developed countries. A higher rate of capital formation can increase the stock of capital goods like machines, instruments, plants, etc. which enable the economy to produce higher level of output and employment. It leads to fuller and efficient utilization of available resources. With increase in national output and employment, it thereby helps in solving the problems related to balance of payment, inflation, employment, economic growth etc. Let us discuss some significance of capital formation in economic development of the LDCs.

- **Increase in National Income:** Increase in capital improves the techniques of production of a country. This leads to an increase in national income and per capita income. By accumulation of capital, other means of production can be utilised properly to maximise the level of production.
- **Formation of Economic and Social Overhead Capital:** Formation of economic and social overhead capital such as roads, railways, electricity, hospitals, schools, etc. are required for economic development which needs large amount of capital. The process of development in the developing countries depends on the size and extent of capital formation which increases the strength of productive capacity of the economy. Availability of educational institutes and health facilities increases the skill level of manpower. In the same way, smooth power supply, market facilities, roads and transportation facilities increases the production and movement of commodities.
- **Technical Progress:** Technological advancement needs large amount of capital. Capital formation creates the social overhead capital which is helpful for technical progress. Technical progress in modern world has become a pre condition for the economic development of the developing countries.
- **Development of Human capital:** Capital formation is also important for improvement of human resources of the country. Human capital formation depends on education, training, health services, social and economic security etc. which needs sufficient capital. Moreover, to absorb the labour force and to minimise unemployment, entrepreneurial and business activities can be increased injecting additional capital.

- **Expansion of Market:** Capital formation not only increases the volume of production and thereby national income, it also creates demand for the produced commodities and thus there is expansion of the market. Overall economic activities increases and also makes the country less dependent on foreign countries.
- **Increase in economic welfare:** With capital formation, more public spending is possible from which public get more facilities in economic as well as social fields in the form of various welfare schemes. Indirectly such facilities increase productivity, and also increase the disposable income of the people, especially the poor.

LET US KNOW

Capital may be accumulated from different sources. The sources may be both internal or external. Some internal sources of capital formation are voluntary savings, thrift or forced saving and taxation, etc. On the other hand, external sources are foreign aid - grants or loans, restriction on imports, etc.

CHECK YOUR PROGRESS

Q.1: What is meant by capital formation? (Answer in around 20 words)

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Q.2: Name the different sources of capital. (Answer in around 50 words)

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Q.3: What role does market expansion play in capital formation? (Answer in around 30 words)

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10.5 REASONS OF LOW RATE OF CAPITAL FORMATION IN DEVELOPING COUNTRIES

It has been agreed that rate of capital formation is low in Less Developed Countries (LDCs). As already mentioned, capital formation is a key factor to economic development. The LDCs have slow pace of development due to low capital formation. This is one of the important parts of the chain that creates the vicious circle of poverty in developing countries. There are certain reasons behind the low rate of capital formation in the developing countries as mentioned below.

- **Low Income:** Capital accumulation is done from savings which is very low in LDCs. Savings is dependent on the size of income. Since income is very low, the propensity to consume is very high. So, almost entire income is spent on consumption purpose, keeping nothing for savings. Therefore capital formation remains low in those countries.
- **Low Productivity:** Since the agricultural and industrial sectors are backward in the LDCs, their productivity is also low. They practice outdated method of production and are unable to properly utilize the natural resources. Thus the level of income and savings remain low, resulting in poor capital formation.
- **Inefficient Manpower:** Labour and entrepreneurs are not skilled and trained due to which they often misutilze the available resources which leads to low productivity. High labour productivity is essential for high productivity of capital also.
- **Demographic Structure:** Major portion of the population in LDCs are unskilled, which leads to low productivity. Moreover, unemployment and large dependency ratio also adversely affect the capital formation in the developing countries. Even with large size of income, due to heavy population, the per capita income remains low. High life expectancy and high birth rate increases the dependency ratio resulting in high consumption and low savings and thereby low capital formation.
  .
- **Small Size of Market and Market Imperfection:** Entrepreneurs find it difficult to find adequate demand for their products due to small size of market and also due to lack of proper transportation and communication facilities. There also exists a gap in information which adversely affects the overall investment and capital formation in LDCs. Moreover, size of the market is also limited by low level of income for which demand for commodities are low. In developing countries, the capital and money markets are not well organized to facilitate profitable investment.
- **Shortage of Credit Facilities and Incentives:** There are not enough financial institutions in the LDCs to provide credit facilities to the entrepreneurs. Therefore, there is lack of funds to invest. Also due to poor administrative systems, existing programmes are also not able to promote investment. Stock markets are also not sound for facilitating long term profitable investment and funding.
- **Poor Social and Economic Overheads:** Poor roads and communication facilities, insufficient power supply, inefficient education and health facilities are also important factors leading to low capital formation in the developing counties.
- **Technological Backwardness:** Developing countries use old out dated techniques which have less productivity. They are either not willing or have no accessibility or

unable to bear the cost of highly sophisticated technologies. Modern techniques and equipments are more productive but also expensive which less developed countries cannot afford. Therefore, they have to use old techniques which are less efficient, which leads to less production. Thus, capital formation also remains low in these countries.

- **Demonstration effect:** Prof. Nurkse mentioned an important factor which leads to low capital formation in the LDCs, which is the demonstration effect. Every individual has a tendency to imitate the better living standards of his neighbours. People in LDCs have a tendency to imitate the activities of advanced counties. Examples of such demonstration effects are watching foreign film, foreign food, foreign tour, etc. which are highly expensive. For that there is more consumption expenditure leading to less saving and thereby low capital formation.

CHECK YOUR PROGRESS

Q.4: How does insufficient credit restrict capital formation in LDCs? (Answer in around 40 words)

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Q.5: How does size of market restrict capital formation? (Answer in around 30 words)

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10.6 CONCLUSION

Capital formation is a pre requisite for growth and development. Each of the factors responsible for low capital formation is related to other factors. For example, low income is caused by low productivity which is dependent on usage of less efficient technology and unavailability of infrastructural facilities like market, transport and communication and skilled manpower. Capital formation itself is also a cause of hindering factors. Therefore, we need to make proper planning and have appropriate policies to overcome these for better performance of the developing countries.

10. 7 LET US SUM UP

- Insufficiency of capital accumulation is one of the most serious limiting factors in the developing countries to increase the pace of economic growth and development.

- Capital includes all goods that are created by humans and used for producing goods or services. Capital can include physical assets, such as a production plant, or financial assets, such as an investment portfolio. It also includes the knowledge, skills and abilities that employees contribute to the generation of income as human capital.
- Capital formation can be defined in narrow sense as well as broader sense. In the former, it includes only the investment in material or physical capital such as building roads and transport facilities, construction of railways, irrigation facilities to increase the agricultural productivity, etc.
- In broader sense, capital formation means investment in both human capital such as spending on education, health, nutrition, etc. along with investment in material capital such as buildings, construction of roads, provision of power supply, etc.
- Capital formation is very significant for economic development of the developing countries. They are crucial in attaining a certain rate of growth in national income. Capital formation is essential for building economic and social overheads. It also lowers the external burden of a country.
- Capital formation is also important for human development of the country. They help in increasing skill level, employability of manpower and thus increase labour productivity.
- Low income, use of old and outdated technology, lack of demand, poor entrepreneurial skill and incentives are important reasons for low capital formation in the developing countries.

10. 8 FURTHER READING

1. Somashekhar, Ne. Thi: Development and Environmental Economics, New Age International Publishers, New Delhi, 2003
2. Puri VK & Misra SK: Economics of Development and Planning, Himalaya Publishing House, 2016.
3. Jhingan, M.L.: The Economics of Development & Planning, Konark Publishers Prvt. Ltd., New Delhi
4. Raj F, Mukherjee M, Ghose A, Nag RN: Contemporary Development Economics, New Central Book Agency (P) Ltd., Kolkata, 2011

10. 9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q.1: Capital formation refers to the net addition made to the existing stock of capital in a given period of time.

Ans. to Q.2: Capital may be accumulated from different sources. The sources may be both internal or external. Some internal sources of capital formation are voluntary savings, thrift or forced saving and taxation, etc. On the other hand, external sources are foreign aid -grants or loans, restriction on imports, etc.

Ans. to Q.3: Capital formation not only increases the volume of production and thereby national income, it also creates demand for the produced commodities and thus there is expansion of size of market. Overall economic activities increases and also makes the country less dependent on foreign countries.

Ans. to Q.4: There are not enough financial institutions in the LDCs to provide credit facilities to the entrepreneurs. Therefore, there is lack of funds to invest. Also due to poor administrative systems, existing programmes are also not able to promote investment. Stock markets are also not sound for facilitating long term profitable investment and funding.

Ans. to Q.5: Entrepreneurs find it difficult to find adequate demand for their products due to small size of market. Moreover, size of the market is also limited by low level of income for which demand for commodities are low. In developing countries, the capital and money markets are not well organized to facilitate profitable investment.

10. 10 MODEL QUESTIONS

Short Questions: (Answer in around 75 words)

Q1: Distinguish between human capital and physical capital with example.

Q2: Explain the demonstration effect as cause of high propensity to consume in a developing country.

Long Questions: (Answer in around 300 words)

Q1: Explain the importance of capital formation in developing counties for their economic development.

Q2: What are the factors that cause low capital formation in the developing countries?

Q3: How vicious circle of poverty can be broken with adequate capital formation?

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UNIT 11: TECHNICAL CHANGE AND ECONOMIC DEVELOPMENT

UNIT STRUCTURE

11.1 Learning Objectives

11.2 Introduction

11.3 Meaning of Technical Progress

11.4 Role of Technology in Economic Development

11.5 Problems of Technological Change in Developing Countries.

11.6 Labour Intensive versus Capital Intensive Techniques: Choice of Technique

11.7 Conclusion

11.8 Let Us Sum up

11.9 Further Reading

11.10 Answers to Check Your Progress

11.11 Model questions

11.1 LEARNING OBJECTIVES

In this unit we discuss about topics related to technical progress and economic development of the developing countries. After going through this unit, you will be able to

- understand the role of technology in economic growth and development
- learn about the different forms of technical progress
- know the problems of technical progress in developing countries
- learn about the difference between labour intensive techniques and capital intensive techniques

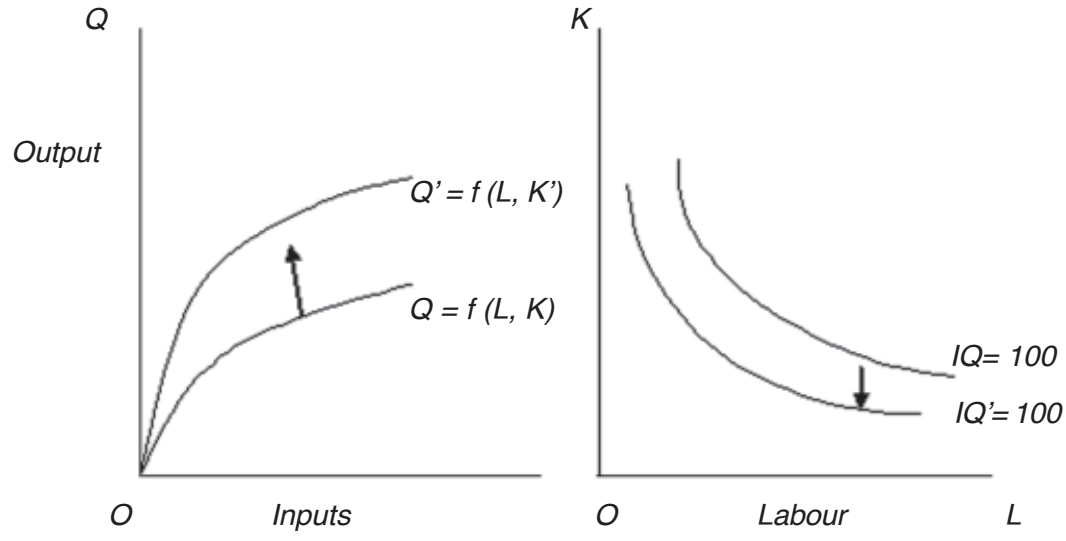
11.2 INTRODUCTION

Technical change or technological change has a great role in economic development of a country. Advancement of technology can increase productivity and hence it is important to know how technological progress affects the performance of an economy. An efficient production technique can produce more output with same unit of input, or in other words, same level of output can be produced with less amount of factor employment. But improving the technique of production is a challenge for developing economies because capital formation is low here and size of market is also small. Therefore it is very important

to know whether technical progress is in the right direction in promoting specialisation for the better comparative advantage in their resource endowments in developing countries.

11.3 MEANING OF TECHNICAL PROGRESS

Technical progress (or technological progress) is an economic measure of innovation. Thus, it is a long term continuous process when a state of production technique advances from a lower to another more efficient state. Technical progress or technological progress results in availability of new knowledge, innovation and invention which increases the efficiency of all methods of production.



In the above set of figures, left panel shows how production function Q = f (L, K) is shifted to Q'= f (L, K'). Right panel show the inward shift in iso quants representing same level of output. This simply indicates that less amount of labour and capital is used to produce same level of output.

ACTIVITY

1. Prepare a list of the major technical change that has been taken place in agriculture during the Plan period in India. Also write a note whether such technical changes has increased the per capita production in the sector or not.
2. Find out whether technical changes have benefitted the agricultural sector in the rural areas?

11.4 ROLE OF TECHNOLOGY IN ECONOMIC DEVELOPMENT

Technical progress has a big role in promoting rapid economic growth and development of developing countries. They not only increase production by reducing production cost and bringing new products, by spreading new knowledge and education; it also creates a skilled cadre of manpower and thus there is a sustainability of the effects of technical progress. A technical progress may have two types of effects -

- **Shift of the production function:** Shift in the production function indicates more output is produced due to improvement in the productivity of either any one or both the factors. This can also be shown by an inward shift of the iso quants which indicates that same output can be produced with less input. It may take the form of new methods of producing existing commodities and new forms of organization, marketing and management. Thus there is efficiency which reduces the cost of production and increases the extent of market.
- **Availability of new products:** Technological progress makes new machines and tools available. For example the inventions and availability of mobile phones, laptops, computers, etc. have made a huge difference in productivity.

The two types of effects are not, however, mutually exclusive. In a number of cases, availability of new products results in a shift of the production function reducing the cost of production since it brings efficiency in overall methods of production. Of course, without inventions of new products too, there may be technical progress when an entrepreneur innovates in marketing or managerial organization and techniques.

We thus see that technical progress can increase production and productivity by introducing new production technique in existing products as well as bringing in new products into the market. This is very helpful for the development of the economy. Healthy competition among the producers in using improved technology can bring in a revolution. This process can continue beyond the national boundary introducing new dimensions in international trade. Rapid economic growth and development of Western countries and even Asian country like Japan proves the role and importance of improved technology as a factor promoting economic development. Thus we can summarise that technology has led to greater output, shorter working hours, creation of skilled job in the fields like design, engineering, production of new and better products with more efficient use of raw materials, decline of superstition and traditionalism by the spread of education and knowledge.

CHECK YOUR PROGRESS

Q.1: What is meant by technical change? (Answer in around 30 words)

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Q.2: Name the two types of effects of technical progress. (Answer in around 20 words)

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Q3: Discuss the role of technical progress in economic development? (Answer in around 50 words)

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LET US KNOW

Invention and innovations are different. Schumpeter distinguishes between the two as: "while the former refers to the discovery of new technique, the latter refers to the practical (commercial) application of the former in production process." Innovation may take place with or without invention. If the entrepreneur brings new ideas with introducing new machines, tools, or techniques which is efficient than earlier, then it is innovation with invention. Again, one may also bring some new ideas in marketing or in managerial structure which is new, then also it is innovation but there is no new discovery. It is just a strategic innovation.

11.5 PROBLEMS OF TECHNOLOGICAL CHANGE IN DEVELOPING COUNTRIES

As stated, technology has an important role to play in the economic development of the developing counties. However there are some problems in the adoption of improved technologies by these counties. Such problems faced by the LDCs are briefly explained below.

- Improved technologies generally need large investment. People in LDCs have low level of income, because of which they are unable to make huge investments.
- The sophisticated techniques need skilled manpower. But most of the labours, entrepreneurs are not educated and trained enough to handle them in developing countries

- Most of the inventions that bring technical improvement are labour saving i.e., they release some workers. For example, one computer can replace almost 10 manual labours. Thus, it deepens the unemployment problem in the developing counties like India. So, it can be said that technological innovation leads to displacement of labour causing unemployment.
- Highly sophisticated technologies are basically developed and patent owned by developed counties. Therefore, developing countries have to import such techniques from advanced countries. Thus, they have to become more dependent on foreign trade which makes the terms of trade unfavourable for these developing countries.
- Due to traditional mindset of the people of the developing countries, often the Government of such counties have to face challenges to convince the illiterate and conservative people to adopt the scientific and progressive inventions.
- Developing countries also have to face problems while selecting the type of technical progress. Most of the developing countries are basically labour surplus countries with abundant natural resources. So, labour intensive technique seems to be more convenient for them. But as shown by Leontief in case for America and Japan, it may be opposite in practical field. Moreover, capital deepening techniques are needed to explore the unexplored natural resources so that they are able to utilize their idle resources.

11.6 LABOUR INTENSIVE VERSUS CAPITAL INTENSIVE TECHNIQUE: CHOICE OF TECHNIQUES

If the technical progress is such that it uses more labour than capital, then it is called labour intensive technique. In such technical progress, the capital labour ratio decreases indicating that the proportion between capital and labour has fallen. Countries having more population have a large labour supply and so find it beneficial to favour the labour intensive technique. On the other hand, if the technical progress is such that it uses more capital than before compared to the use of labour, it is called capital intensive technique. In case of capital intensive technique, capital labour ratio increases.

Only the abundance of a factor does not imply that the country should adopt a particular technique; rather the relative price of that factor, efficiency, etc is important to give priority to a certain technique. And sometimes, it becomes wise to develop an intermediate technology which is a good mixture of both. One technique should not be treated as the substitute of other; rather they are complimentary to each other. Well

developed capital equipments can bring more labour productivity and may also create more employment opportunities.

CHECK YOUR PROGRESS

Q.4: Define labour intensive technique of production. (Answer in around 40 words).

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Q.5: Which technique of production is applicable in developing countries? (Answer in around 30 words).

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11.7 CONCLUSION

Technical progress is like the gear of an engine of growth and development. More the technical progress, more is the capacity to increase the pace of development. Though most of the developing nations are labour surplus, it is imperative for them to promote technical progress. Technical progress has a cumulative effect to increase the production and productivity. However, this improvement should not remain concentrated in the hand of few high class capitalists only. This should benefit the common people.

11.18 LET US SUM UP

- Technical progress or technological progress is an economic measure of innovation..
- A technical progress may have two types of effects – i. Shift of the production function and ii. Make new products available.
- Shift in the production function indicates more output is produced due to improvement in the productivity of either one or both the factors. This can also be shown by an inward shift of the isoquants which indicates that same output can be produced with less input. Scientific inventions make new machines and tools available which reflects the second type of effect of technical progress.
- Improved technology can lead to greater output, shorter working hours, creation of skilled jobs, production of new and better products with more efficient use of raw materials, decline of superstition and traditionalism due to the spread of education and knowledge.

- Though technology has an important role in economic growth and development of the developing counties, there are certain problems related to technological progress in these countries. The problems are two types, one is that they have to tackle the negative impacts of technical progress and the other is selection and adoption of appropriate techniques.
- The developing countries have to be cautious while accommodating technological change so that their unemployment problems do not deepen.
- It may not necessarily be true that being labour surplus country, they have to promote only labour intensive techniques. Relative factor price and efficiency are also important for making the choice.
- In most of the cases, an intermediary technique or mixture of both labour intensive and capital intensive technique is adopted by a developing economy.
- Technical progress has a cumulative effect to increase the production and productivity. However, this improvement should not remain concentrated in the hand of few capitalists only. It should benefit the common people.

11.9 FURTHER READING

1. Puri VK & Mishra SK: Economics of Development and Planning, Himalaya Publishing House, 2016.
2. Jhingan, M.L.: The Economics of Development & Planning, Konark Publishers Pvt. Ltd., New Delhi
3. Raj F, Mukherjee M, Ghose A, Nag RN: Contemporary Development Economics, New Central Book Agency (P) Ltd., Kolkata, 2011

11. 10 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q.1: Technical progress (or technological progress) is an economic measure of innovation. Thus, it is a long term continuous process when a state of production technique advances from a lower to another more efficient state.

Ans. to Q.2: The two types of effects of technical change are-

i. Shift in the production function,

ii. Availability of new products.

Ans. to Q.3: Technical progress can increase production and productivity by introducing new production technique in existing products as well as bringing in new products into the market. This is very helpful for the development of the economy. Technologcial change can lead to greater output, shorter working hours, creation of skilled job in

the fields like design, engineering, production of new and better products with more efficient use of raw materials, decline of superstition and traditionalism by the spread of education and knowledge.

Ans. to Q.4: If the technical progress is such that it uses more labour than capital, then it is called labour intensive technique. In such technical progress, the capital labour ratio decreases indicating that the proportion between capital and labour has fallen.

Ans. to Q.5: Since developing countries have an abundant supply of labour and capital is scarce in these countries, they are usually seen to adopt labour intensive technique of production.

11. 11 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q1: Why does an iso quant shift inward as a result of technical progress?

Q2: What is choice of technique? Give reasons for and against capital intensive techniques and labour intensive techniques in developing countries.

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

Q1: What is the risk of technical change? Mention two positive and two negative impacts of technical progress for developing counties.

Q2: What are the problems of technical progress in developing countries?

Q3: Define labour intensive and capital intensive techniques? Which do you prefer for a developing country?

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UNIT 12: ROLE OF STATE IN ECONOMIC DEVELOPMENT

UNIT STRUCTURE

12.1 Learning Objectives
12.2 Introduction
12.3 Role of the State in Promoting Economic Development
12.4 Problems and Challenges of the State in Economic Development
12.5 Role of Public Sector in Developing Countries
12.5.1 Relative Role of the Public Sector
12.5.2 Positive Role of the Public Sector
12.6 Let Us Sum Up
12.7 Further Reading
12.8 Answer to Check Your Progress
12.9 Model Questions

12.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- understand the role of the state in the promotion of economic development.
- learn about steps taken by the state in eradication of poverty, optimum utilization of resources, role in capital formation, in the removal of income inequality etc. in the developing countries.
- know the different types of problems and challenges associated with the promotion of economic development by the states.
- understand the role of Public Sector Units in the promotion of economic development in the developing countries.

12.2 CLASSICAL DEVELOPMENT THEORY OF ADAM SMITH

We all know that developing economies are characterized by low national and per capita income, vicious circle of poverty, chronic unemployment, starvation of masses, acute shortage of capital and weak infrastructure. These countries have remained stagnant and thereby a positive role of the state is necessary to put them on the path of rapid economic development. As a matter of fact, the economic problems in developing countries are so complicated and important that they cannot be solved without active state

participation and corporation. The state has to devise physical controls, monetary and fiscal measures. Further, such measures are also inevitable for reducing economic and social inequalities that pervade the underdeveloped countries. Therefore, state participation in all economic activities is a must for economic development and also for ensuring economic welfare and social justice in such countries.

12.3 ROLE OF THE STATE IN PROMOTING ECONOMIC DEVELOPMENT

The major fields of active state participation in the economic development of developing countries may be stated as under-

- **Eradication of Poverty**: The vicious circle of poverty can be broken only by the state's comprehensive economic planning. An underdeveloped country cannot attain a high rate of investment and growth of output if it is left to the functioning of the market forces. The state has to intervene directly to initiate the process of economic development by increasing income of the people.
- **Creation of Social and Economic Overheads**: Developing countries lack economic overheads such as means of communication and transportation, electricity and power, irrigation, gas, roads, ports etc. The private enterprise is not interested to invest in these enterprises as the investment involved is beyond their resources. The yield from them is also very low. Investment in these sectors then needs to be done by the state.
- **Agricultural Development**: Agriculture is the major contributor to national income of a developing country and provides employment to the majority of people. But in most of these countries, agricultural productivity is low due to the existence of uneconomic holdings, fragmentation of land holdings, defective land tenure system, lack of adequate credit facilities, indebtedness of the masses, obsolete technology of production, the absence of irrigation and banking facilities, low level of investment and the overpressure of population on land. In these conditions the state has to undertake programmes for agricultural development including land reforms, productivity movements, consolidation of land holdings, electrification and minor irrigation programmes and formulate agricultural policies that ensures the farmers fair prices for their crops.
- **Ensuring Optimum Utilisation of Natural Resources**: Underdeveloped countries have vast unexploited natural resources. Due to shortage of capital and other means, the private sector is not in a position to make use of these vast natural

resources. It is the state which takes up programmes for optimum utilisation of these natural resources in the interest of the country.

- **Role in Capital Formation**: Due to low savings and investments, the process of capital formation is very low in developing countries. Mass poverty prevails in these countries. Without adequate capital formation, economic development is almost impossible. The state can accelerate the rate of capital formation by launching attractive saving schemes, direct and indirect taxation, deficit financing and inflation etc.
- **Role in Industrial Development**: The developing countries lack requisite capital, technology, entrepreneurship, skilled labour etc. In such countries, the private sector is primarily engaged in the manufacture of few domestic goods for domestic consumption. However, to accelerate the rate of economic development, the establishment of basic and key industries like iron and steel, paper, textiles, heavy engineering, cement, fertilizers, heavy electrical, machine-tools is essential. Such industries require huge investments and have long gestation periods. Private sector is, therefore, reluctant to enter in these areas of production. The state can play a vital role in the industrial development of a country by framing a suitable industrial policy.
- **Removal of Income Inequalities**: Developing countries are characterized by wide disparities in the distribution of income and wealth. There exists a wide gap between the rich and the poor. The state must take appropriate measures to secure equitable distribution of wealth. This can be done through public finance operations. The state can impose steeply progressive taxes on income and wealth and on luxury goods and benefit the poor through wise public expenditure. The reform of inheritance laws, regulation of competition and control of monopolies will ensure equal opportunities for all and pave the way for economic development. Besides, the state must endeavour to bring about happy and harmonious relationship between labour and capital by means of social and labour legislation and thereby minimize losses of production through strikes and lock-outs.
- **Reduction of Regional Disparities**: The problem of regional disparity in the developing countries is of such a magnitude that their political and economic stability is threatened. In order to solve this problem, the state can devise and execute appropriate economic policies. This becomes more necessary because private sector is guided only by profit motive and invests in already developed regions of the country. Since the state does not have such considerations in view, it can devise policies that help in reducing regional imbalances and inequalities.

CHECK YOUR PROGRESS

Q.1: State whether the following statements are True or False:

i. State is an important vehicle of achieving socio-economic objectives. [True]

ii. Role of the State in the economic development of underdeveloped countries is most satisfactory. [False]

Q.2: Explain the role of the state in the agricultural development of developing countries. (Answer in around 70 words)

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Q.3: State the role of the state in the removal of income inequalities. (Answer in around 50 words)

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12.4 PROBLEMS AND CHALLENGES OF THE STATE IN ECONOMIC DEVELOPMENT

It may be remembered that the state cannot and should not do everything. The more the state intervenes, the greater is the burden and cost of administration and it may lead to inefficiency, corruption and waste. The major challenges facing the state may be summarized as follows:

- **Corrupt and Inefficient State Machinery:** In most of the underdeveloped countries the selection of the administrative machinery is not done on merit but on the basis of caste and recommendations. The standard of public morality is low. As such, it is not capable of organizing development programmes properly.
- **Concentration on Power:** The concentration of economic and political power in the state may lead to all sorts of corruption, favouritism, bureaucratic interference and nepotism.
- **Political Pressures:** In most of the developing countries, there are political pressures on the state which makes it impossible to concentrate on important economic activities. The public sector development projects are selected not on the basis of merits and feasibility but in order to satisfy vested interests and pressure groups.
- **Interference in Functioning of Public Sector Units (PSUs):** State participation in the functioning of PSUs is responsible for lack of autonomy in decision-making,

use of public sector units by ministers and corrupt bureaucrats to siphon off funds; low works ethics resulting in low efficiency, negative rate of return etc.

- **Other Factors:** Some miscellaneous factors that create big challenge before the state in economic development are defective pricing policies, large over-head expenses, over capitalization, problem of over-staffing, under capacity utilization, rising cost of administrative machinery etc.

Under the above circumstances, the state should limit itself to the performance of those economic activities only which the private enterprise is incapable of performing efficiently and effectively. In this regard, the adoption of mixed economy is the best strategy.

CHECK YOUR PROGRESS

Q.4: "Political interference is a major hindrance in the economic development". Explain. (Answer in around 50 words)

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Q.5: "The state administrative machinery in underdeveloped countries is mostly corrupt and inefficient". Justify the statement. (Answer in around 40 words)

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12.5 ROLE OF PUBLIC SECTOR IN DEVELOPING COUNTRIES

Public sector occupies an important place for achieving systematic and planned development in a developing country. The public sector offers the necessary minimum push for bringing the economy to a path of self sustained growth. The role of public sector can be broadly stated as

- Promoting economic development at a rapid pace by filling gaps in the industrial structure.
- Undertaking economic activity in those strategically significant development areas, where private sector may distort the spirit of national objective.
- Checking monopolies and concentration of power in the hands of a few.
- Promoting balanced regional development and diversifying natural resources and other infrastructural facilities in less developed areas of the country.

- Reducing the disparities in the distribution of income and wealth by bridging the gap between the rich and the poor.
- Attaining self-reliance in different technologies as per requirement and creating as well as enhancing sufficient employment opportunities in different sectors by making heavy investments.
- Eliminating dependence on foreign aid and foreign technology and exercising social control and regulation through various public finance institutions.
- Controlling the sensitive sectors such as distribution system, allocating the scarce imported goods rationally and reducing the pressure of balance of payments by promoting export and reducing imports.

12. 6 LET US SUM UP

- Developing economies are characterised by low national and per capita income, vicious circle of poverty, chronic unemployment, starvation of masses, acute shortage of capital and weak infrastructure.
- These countries have remained stagnant and thereby a positive role of the state is necessary to put them on the path of rapid economic development.
- However, the state cannot and should not do everything. The more the state intervenes, the greater is the burden and cost of administration and it may lead to inefficiency, corruption and waste, faulty implementation of economic planning, over capitalization, problem of over-staffing, under capacity utilization etc.
- The important roles of the public sector in the economic development of the developing country are - Undertaking economic activity in strategically significant areas, checking monopolies and concentration of power, promoting balanced regional development and diversifying natural resources, eliminating dependence on foreign aid etc.

12.7 FURTHER READING

- Agarwal, R.C., Economics of Development & Planning, First edition, 2002
- Dhar, P.K. Indian Economy: Its Growing Dimensions, Kalyani Publishers, 2014
- Lekhi, R.K., Development Economics, Kalyani Publishers, 2013
- Meier, G.M., & James E. Rauch, Leading Issues in Economic Development, Eight Edition, 2009
- Ray, Debraj, Development Economics, 2002
- Thirwall, A.P., Economics of Development, Ninth Edition, 2011
- Todaro, Michael P. and Stephen C. Smith, Economic Development, Tenth Edition, 2009

12. 8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q.1: i) True

ii) False

Ans to Q.2: In developing countries, agricultural productivity is low due to the existence of uneconomic holdings, fragmentation of land holdings, defective land tenure system, lack of adequate credit facilities, obsolete technology of production, the absence of irrigation, and the overpressure of population on land. In these conditions the state has to undertake programmes for agricultural development including land reforms, productivity movements, consolidation of land holdings, electrification and minor irrigation programmes and formulate agricultural policies that ensures the farmers fair prices for their crops.

Ans to Q.3: Developing countries are characterized by wide disparities in the distribution of income and wealth. The state must take appropriate measures to secure equitable distribution of wealth. This can be done through public finance operations. The state can impose steeply progressive taxes on income and wealth and on luxury goods and benefit the poor through wise public expenditure.

Ans to Q.4: In most of the developing countries, there are political pressures on the state which makes it impossible to concentrate on important economic activities. The public sector development projects are selected not on the basis of merits and feasibility but in order to satisfy vested interests and pressure groups.

Ans to Q.5: In most of the underdeveloped countries the selection of the administrative machinery is not done on merit but on the basis of caste and recommendations. The standard of public morality is low. As such, it is not capable of organizing development programmes properly.

12. 9 MODEL QUESTIONS

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

Q1: Explain the role of the state in the agricultural and industrial development of developing countries.

Q2: Examine the role of the Public Sector Units in the economic development of the developing countries.

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

Q1: State the importance of state intervention for economic development of a country.

Q2: Expalin in brief the limitations of the role of the state in the economic development of a country.

Q3: Examine the role of the state in the creation of conditions of full employment in developing countries.

UNIT 13: MANPOWER PLANNING AND ECONOMIC DEVELOPMENT

UNIT STRUCTURE

13.1 Learning Objectives

13.2 Introduction

13.3 Need for Manpower Planning in Developing Countries

13.4 Manpower Planning in India

13.5 Let Us Sum Up

13.6 Further Reading

13.7 Answers to Check Your Progress

13.8 Model Questions

13.1 LEARNING OBJECTIVES

After going through this unit you will be able to:

- know the concept of manpower planning.
- understand the importance of manpower planning in developing countries.
- learn about the different measures of manpower planning in India.

13.2 INTRODUCTION

Manpower planning is also known as human resource planning. It is the process of estimating the number of personnel with different skills required for a particular project over a predetermined period of time. Manpower planning includes details like how and when new employees will be required and predicting technology and business trends. In other words, manpower planning consists of putting right number of people, right kind of people at the right place, right time, doing the right things for which they are suited for the achievement of goals of the organization.

13.3 NEED FOR MANPOWER PLANNING IN DEVELOPING COUNTRIES

Manpower Planning, also called Human Resource Planning, is the process of estimating or projecting the number of personnel required for a project with different skills over a predefined period of time. By correcting imbalances between manpower demand and manpower supply in the economy, manpower planning helps in attaining fuller and optimum utilisation of manpower resources of a country which ultimately leads to maximum growth of National Income. If the demand for a particular type of manpower exceeds its present supply, then appropriate steps need to be taken to increase supply

by providing proper training facilities and necessary economic incentives to bring in more people in that particular type of manpower. Whereas, if supply of a particular type of manpower is more than its demand, then efforts should be made to restrict its supply. However, you need to understand that manpower planning does not mean balancing demand and supply of different categories of manpower – it is a much wider term and is concerned with the overall development and utilisation of manpower resources in a country. It also includes the details like how and when will new employees be acquired. This process considers the goals of the organisation, the future predictions for business and changing technology trends. This prepares the organisation for the future with adequate/ skilled manpower at their disposal for business prosperity. It is therefore necessary that a comprehensive manpower planning policy must include all the activities directly related to the development, maintenance and utilisation of the labour force.

Need for Manpower Planning: The need for manpower planning arises because of the imbalances between manpower demand and manpower supply. This imbalance is a common characteristic of developing countries. The developing countries actually suffer from dual problems – firstly, is the shortage of skilled manpower and secondly, there exists a vast reservoir of unutilised and unskilled manpower. The imbalance between demand and supply of manpower can be corrected with proper manpower planning, which can happen when these unskilled unemployed manpower are imparted training and brought into employment. This will ultimately solve the problem of persistent shortage of manpower facing developing countries. Moreover, the underemployed and unutilised resources can also be utilised with proper manpower planning.

Importance of Manpower Planning: Manpower planning is an essential requirement for any business. It basically helps the company to be prepared in advance for the type of employees they will require in the future. The importance of manpower planning can be studied under the following heads:

- **Meeting Future Manpower Needs**: Manpower planning ensures that right people are available for the right kind of job at the right time. Manpower planning is thus regarded as a tool to ensure future availability of manpower to carry on the organisational activities.
- **Selection of Trained Personnel**: Manpower planning leads to selection and recruitment of the most capable person for the job.
- **Development of Human Resources**: Manpower planning also leads to development of human resources. It first identifies the skill requirements for the different levels of job and then organises training and development programmes

to impart the required skill and ability in the employees to perform efficiently and effectively.

- **Reduction in Uncertainty**: Manpower planning leads to reduction in uncertainty brought about by sudden changes in external factors (like changes in technological, political, socio-cultural and economic forces).

Manpower Planning Process: Manpower planning is a systematic approach and is carried out in a set procedure. The following steps are involved in the manpower planning process.

- **Understanding the existing workforce**: An organisation has to be fully equipped with information (skill, qualifications, etc) regarding its existing manpower resources.
- **Making future manpower forecasts**: After a careful assessment of the current manpower resources, planning should be done for future manpower requirements. With constant changes in business requirements, companies must understand the future trend and the type of employees that would be required in the future. The organisations should, thus, forecast the type of employees they would need in the future.
- **Recruitment and selection**: Once an organisation correctly forecasts the needs of future, manpower planning leads to a well thought out requirement and selection pattern. Based on forecasts made, candidates with better qualification, skill, experience etc. are selected as employees to suit future needs.
- **Design training programmes**: These will be based on the extent of diversification, expansion paths, development programmes, etc. Employees who are a part of the organisation need to be trained to have the best skills, knowledge and understanding about the current job as well as the future requirements.

CHECK YOUR PROGRESS

Q.1: What is meant by manpower planning? (Answer in around 30 words).

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Q.2: Mention the need for manpower planning. (Answer in around 50 words).

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Q.3: What role does forecasting future manpower needs play in manpower planning? (Answer in around 50 words).

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Q.4: Mention the steps involved in manpower planning process. (Answer in around 30 words).

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13.4 MANPOWER PLANNING IN INDIA

Manpower planning or Human Resource Planning has been on the forefront in the minds of Indian planners since Independence. Manpower planning, i.e., matching people's skills to the nation's human resource requirement to provide productive job opportunities is indeed a gigantic task, but is essential for maintaining economic and social stability in the economy. If done properly, there will be no unemployment problem.

The Planning Commission (now NITI Aayog) in India has been specifically charged with the responsibility to make estimates of human resources of the country. The Government of India in 1956, appointed a Scientific Personnel Committee under the chairmanship of Prof P C Mahalanobis to consider the problem of demand and supply of scientific, technical and engineering manpower in relation to national development plans. In the Second Five Year Plan too, the Planning Commission undertook a number of studies on the stock of different categories of scientific and technical personnel and their distribution by specialisation. These studies added a considerable knowledge to the then existing knowledge of the different categories of manpower. Over the years, the Indian government has been giving increasing priority to population planning and control, education, health, housing, etc.

- **Population Planning and Control**: To combat the problem of population explosion which leads to economic imbalances, the Government of India has initiated a number of measures. The National Population Policy was adopted in 2000 to ensure population stabilisation. This policy emphasises on affordable reproductive health care, increased quality of life by enhancing services of primary and secondary education, sanitation, drinking water, housing, transport, communication, etc. These efforts, which still continue, have led to a significant rise in population control awareness amongst people which has led to a decline in birth rate.
- **Literacy and Education**: Another initiative of the Government of India to develop manpower resources is the introduction of the National Policy on Education in

1986. This policy focuses on complete eradication of illiteracy in India declaring basic primary level education up to standard V free and compulsory. Some of the initiatives undertaken for achieving this objective include –

- Sarva Shiksha Abhiyan (SSA)/ Right to Education (RTE): This has made free education for all children between 6 and 14 years of age a fundamental right under RTE Act 2009.
- Rashtriya Madhyamik Shiksha Abhiyan (RMSA): Launched in March 2009, the objective of this scheme is to improve quality of secondary education by enhancing access to it.
- National Programme of Mid Day Meals in Schools: Under this scheme, cooked midday meals are provided to all children attending classes I-VIII in government, local body, government aided, and National Child Labour Project schools.
- Saakshar Bharat (SB)/ Adult Education: The National Literacy Mission, recast as Saakshar Bharat (SB) launched on 8 September, 2009, focuses on increased adult literacy.
- National Programme for Education of Girls at Elementary Level (NPEGEL): This scheme focussed on intervention by Government of India to reach girls education.
- National Mission in Education through Information Communication Technology (ICT): This is the major initiative taken by the Government of India in 2011-12 for promoting higher and technical education.
- Inclusive Education for the Disabled at Secondary Stage (IEDSS): This scheme was launched by the Government in 2009-10 to make secondary education available to disabled people of the country.

- **Health and Medical-Care**: The aim of the National Health Policy of 2002 was to provide preventive and curative health-care facilities for achieving an acceptable standard of good health amongst the population of the country. Elimination and control of diseases such as small pox, leprosy, polio and tuberculosis are some of the achievements of the Programme.
- **Housing**: The Government of India has implemented the National Housing and Habitat Policy in 1998 for achieving sustainable development of housing infrastructure through public-private partnership. The programme also gives priority for building rural infrastructure. One such programme is Bharat Nirman, launched in 2005-06 for building infrastructure and basic amenities which include

irrigation, drinking water, rural roads, electrification, and rural telephone in rural areas. The Rajiv Awas Yojana (RAY) provides shelter and redevelopment and creation of affordable housing stock to states, which are willing to assign property rights to slum dwellers.

CHECK YOUR PROGRESS

Q.5: Name the steps taken by the Government of India to combat population explosion. (Answer in around 50 words).

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Q.6: What was the main objective of Sarva Shiksha Abhiyan? (Answer in around 20 words).

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13. 5 LET US SUM UP

- Manpower Planning is the process of estimating or projecting the number of personnel required for a project with different skills over a predefined period of time.
- By correcting imbalances between manpower demand and manpower supply in the economy, manpower planning helps in attaining fuller and optimum utilisation of manpower resources of a country which ultimately leads to maximum growth of National Income.
- The need for manpower planning arises because of the imbalances between manpower demand and manpower supply.
- This imbalance is a common characteristic of developing countries.
- The developing countries actually suffer from dual problems – firstly, is the shortage of skilled manpower and secondly, there exists a vast reservoir of unutilised and unskilled manpower. The imbalance between demand and supply of manpower can be corrected with proper manpower planning.
- The importance of manpower planning can be studied under the following heads – Meeting future manpower needs, Selection of trained personnel, Development of human resources, Reduction in uncertainty.
- The steps involved in manpower planning process include – understanding the existing workforce, making future manpower forecasts, recruitment and selection, designing training programmes.

- Manpower planning has been on the forefront in the minds of Indian planners since Independence.
- The Planning Commission (now NITI Aayog) in India has been specifically charged with the responsibility to make estimates of human resources of the country.
- The Government of India, in 1956, appointed a Scientific Personnel Committee under the chairmanship of Prof P C Mahalanobis to consider the problem of demand and supply of scientific, technical and engineering manpower in relation to national development plans.
- In the Second Five Year Plan too, the Planning Commission undertook a number of studies on the stock of different categories of scientific and technical personnel and their distribution by specialisation.
- Over the years, the Indian government has been giving increasing priority to population planning and control, education, health, housing, etc.

13. 6 FURTHER READING

- Lekhi, R. K. & Aarti Nayar (2005). Development and Environmental Economics. New Delhi: Kalyani Publishers
- Jhingan, M. L. (1992). Economics of Development and Planning, Delhi: Konark Publishers Pvt. Ltd.
- Ronald, G (2014). Development Economics, New York: Routledge
- Dreze, J. & Amartya Sen (2013). An Uncertain Glory: India and its Contradictions, UK: Penguin
- Ghatak, S. (2003). Introduction to Development Economics, New York: Routledge
- Ray, Debraj (1998). Development Economics, New Jursey: Princeton University Press

13.7 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q.1: Manpower Planning is the process of estimating or projecting the number of personnel required for a project with different skills over a predefined period of time.

Ans. to Q.2: The need for manpower planning arises because of the imbalances between manpower demand and manpower supply. This imbalance is a common characteristic of developing countries. The developing countries actually suffer from dual problems – firstly, the shortage of skilled manpower and secondly, there exists a vast reservoir of unutilised and unskilled manpower. The imbalance between demand and supply of manpower can be corrected with proper manpower planning.

Ans. to Q.3: Planning needs to be done for future manpower requirements. With constant changes in business requirements, companies must understand the future trend and the type of employees that would be required in the future. The organisations should, thus, forecast the type of employees they would need in the future. This will help them to overcome future trained manpower shortage.

Ans. to Q.4: The steps involved in manpower planning process include – understanding the existing workforce, making future manpower forecasts, recruitment and selection, designing training programmes.

Ans. to Q.5: To combat the problem of population explosion, the Government of India has initiated a number of measures. The National Population Policy was adopted in 2000 to ensure population stabilisation. This policy emphasises on affordable reproductive health care, increased quality of life by enhancing services of primary and secondary education, sanitation, drinking water, housing, transport, communication, etc.

Ans. to Q.6: The main objective of Sarva Shiksha Abhiyan (SSA) is to make free education for all children between 6 and 14 years of age a fundamental right under RTE Act 2009.

13.8 MODEL QUESTIONS

Short questions (Answer in around 75 words)

Q1: How does manpower planning help in optimum utilisation of resources?

Q2: In what way training programmes help in the manpower planning process?

Q3: What is the objective of the Bharat Nirman Program?

Long questions (Answer in around 300-500 words)

Q1: Discuss the importance of manpower planning.

Q2: Discuss the steps involved in manpower planning process.

Q3: What steps have been taken by the Government of India for manpower planning in India?

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UNIT 14: HUMAN RESOURCE DEVELOPMENT

UNIT STRUCTURE

14.1 Learning Objectives
14.2 Introduction
14.3 Human Resource Development
14.4 Significance of Human Resource Development
14.5 Objectives of Human Resource Development
14.6 Indicators of Human Resource Development
14.7 Let Us Sum Up
14.8 Further Reading
14.9 Answers to Check Your Progress
14.10 Model Questions

14.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- understand the meaning of human resource development
- learn the significance of human resource development
- explain the objectives of human resource development
- understand the features of human resource development
- find out the indicators of human resource development

14.2 INTRODUCTION

The development of human resources is vital for development of any society or country. Human resources have unlimited potential capabilities. So it would be beneficial to train them so that they can fully utilize their capabilities. A country can develop without natural resources, but no country can develop without adequate human resources. Accordingly many recent models of development have given a lot of importance to human development. Human development helps to develop productivity of the people in all sectors of the economy. Higher efficiency on the part of the people helps to develop better techniques of production and marketing of goods and services. This in turn facilitates economic growth of the country.

At micro level, human resource development is a part of human resource management. The term human resource management is a process which use the following things-

- Recruitment and selecting employee
- Providing orientation and induction, training and development
- Performance appraisal of employee
- Providing compensation and benefits, maintaining employees' safety, welfare and health measures.
- Motivating and maintaining proper relations with employees and trade unions

14.3 HUMAN RESOURCE DEVELOPMENT

Human resource development is the process of increasing the knowledge, the skills and the capacities of all the people in a society. From economic point of view, it could be described as the accumulation of human capital and its effective investment in the development of an economy. Human resource development mainly depends on education and health. Human resources are developed with formal education, beginning with primary education, continuing with various forms of secondary education, and then higher education. The second condition for human resource development is the improvement in health of the working population through better medical and public health programs, and improvement in nutrition, which increase the working capacity of people, on a man-hour basis as well as over working life.

Meaning and Definition

From micro point of view, the meaning of human resource development can also be stated as-

- Human resource development is the frameworks for helping employees develop their personal and organizational skills, knowledge and abilities. Human resource development includes such opportunities such as employee training, employee career development, coaching, mentoring, succession planning, key employee identification, tuition assistance and organization development.
- Human resource development is that part of human resource management that specifically deals with training and development of the employees. Human resource development includes training an individual after he/she is first hired, providing opportunities to learn new skills, distributing resources that are beneficial for employees' tasks and any other developmental activities.

The concept of Human resource development was first introduced by Leon Nadler in a conference in United States. He defined human resource development as," those learning experience which are organized for a specific time and designed to bring about the possibility of behavioral change." Thus human resource development is a process in which the employees of any organization are provided with training and development to increase their knowledge, skills, education and abilities.

Different scholars have defined human resource development in various ways. Some of the important definitions of human resource development are-

- According to Leonard Nadler, "human resource development is a series of organized activities conducted within a specialized time and designed to produce behavioural changes."
- Udai Pareek and T.V. Rao explain "HRD is primarily concerned with developing employees through training, feedback and counseling by the senior officers and other developmental efforts."
- According to M. M Khan, "human resource development is the process of increasing knowledge, capabilities and positive work attitudes of all people working at all levels in a business undertaking."

CHECK YOUR PROGRESS

Q.1: What is human resource development? (Answer in about 30 words)

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Q.2: Who first introduced the concept of human resource development? (Answer in around 20 words)

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14.4 SIGNIFICANCE OF HUMAN RESOURCE DEVELOPMENT

Professor Harbison explains the significance of human resource development as, "Human resources… constitute the ultimate basis for wealth of nations. Capital and natural resources are passive factors of production; human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations, and carry forward national development. Clearly, a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else." Any organization that wants to be dynamic and growth oriented must develop its human resources. Therefore the main purpose of human resource development is to provide training or coaching needed to strengthen the knowledge, skills and abilities of the employees that they already possess. In a study of the "Capacity of the United Nations Development System" it is said that, "human rather than capital is the key to development." The significance of human resource development in the growth of an organization is as follows-

- Human resource development helps in achieving the outcomes of the organization effectively. In other words human resource development promotes organizational effectiveness.
- Human resource development helps in improving the organizational behavior of the employees and improves team work.
- One of the most important roles of human resource development is that it improves the skills and efficiency of the employees. This further leads to better performance of the employees.
- Human resource development strengthens the executive skills of the employees.

LET US KNOW

Human resource development has an important significance in the context of any organization. It provides useful data for human resource development. It helps in increasing the skills, knowledge, and efficiency of the employees working in an organization and leads to organizational effectiveness. The employees strengthen their executive skills and improve their organizational behavior.

CHECK YOUR PROGRESS

Q.3: Point out the significance of human resource development (Answer in 60 words)

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Q.4: Write whether true or false-

a. Human resource development does not improve the organizational behavior of the employees.

b. Human resource development provides with various useful data.

14.5 OBJECTIVES OF HUMAN RESOURCE DEVELOPMENT

The main objectives of human resource development are as given below-

- To motivate the employees
- To develop the constructive mind and overall personality of each and every person in the organization
- To maintain a sound relationship between each employee and his supervisor
- To develop the sense of team spirit, team work, and inter - team collaboration in the organization

- To generate systematic information about human resources for the purposes of manpower planning, placement and the like
- To develop the overall health and capabilities of the total organization
- To provide a comprehensive framework for the overall development of people in the organization

CHECK YOUR PROGRESS

Q.5: What are the objectives of human resource development? (Answer in around 60 words)

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Q.6: Write whether true or false:

i. Human resource management maintains a sound relationship between the employee and his supervisor.

ii. Human resource management does not take into account the health situation and capabilities of the employees.

LET US KNOW

Human resource development is a continuous and systematic process where development of individuals takes place. It consists of techniques and is a multi-disciplinary subject as it uses knowledge from different subject matter. At the micro level human resource development involves improvement in the quality of individuals and in the macro level it involves improvement of the quality of life of the people of a nation.

14.6 INDICATORS OF HUMAN RESOURCE DEVELOPMENT

The United Nations Development Programme has defined three main indicators of human resource development. They are

- Longevity
- Education
- Income

Combining all these three together we get the human development index. It is to be noted that the calculation methods of these indicators may vary from time to time.

- **Longevity**- It means life expectancy at birth. In other words longevity refers to the number of years a newly born baby is expected to live. The value of this index varies between 0 and 1.

- **Education**- This index measures the level of educational attainment of the people. The expected years of schooling for school age children and average years of schooling in adult population is calculated. Like the longevity index the value of this index also varies between 0 and 1. Higher the level of this index, higher will be the education level.
- **Income**- This index indicates the per capita income of the individuals which will give idea about the living standard. A higher level of income will indicate a better standard of living of the individuals and vice versa. The real GDP per capita is calculated which is a better measure of the quality of life of the people as compared to per capita income.

CHECK YOUR PROGRESS

Q.7: What are the indicators of human resource development? Explain (Answer in around 60 words)

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14. 7 LET US SUM UP

- Human resource development is a part of human resource management.
- Human resource development is a process in which the employees of any organization are provided with training and development to increase their knowledge, skills, education and abilities.
- Human resource development has immense significance.
- Human resource development has a number of objectives
- Features of human resource development-
  - Continuous process
  - Systematic approach
  - Techniques
  - Multi- disciplinary subject
  - Micro and macro aspects
- Human resource development has three main indicators- longevity, education and income.
  - Longevity means the life expectancy at birth.
  - Education measures the educational attainment of the people.
  - Income takes into account the real per capita GDP of the people. A higher level of income will indicate a higher level of standard of living.

14. 8 FURTHER READING

- Dudeja, V. D. (2006). Human Resource Development: Global Perspectives. Commonwealth Publishers
- Harbison, F. and Charles A. Myers (1998). Education, Manpower and Economic Growth, New Delhi, Oxford & IBH Publishing Co.
- Gupta, S. K. & Joshi, R. (2010). Human Resource Management. New Delhi, Kalyani Publishers
- Lekhi, R. K. (2014). Introduction to Development Economics. New Delhi, Kalyani Publishers
- Sharma, R. (2010-11). Human Resource Development. Delhi, Lakshmi Narayan Agarwal Publisher

15.7 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q.1: Human resource development is a process in which the employees of any organization are provided with training and development to increase their knowledge, skills, education and abilities.

Ans. to Q.2: Leon Nadler first introduced the concept of human resource developme

Ans. to Q.3: Significance of human resource development-

1. Human resource development helps in achieving the outcomes of the organization effectively. In other words human resource development promotes organizational effectiveness.

2. Human resource development helps in improving the organizational behavior of the employees and improves the team work.

3. One of the most important roles of human resource development is that it improves the skills and efficiency of the employees. This further leads to better performance of the employees.

4. Human resource development strengthens the executive skills of the employees.

Ans. to Q.4: a) False b) True

Ans. to Q.5: The main objectives of human resource development are as given below

1. To motivate the employees

2. To develop the constructive mind and overall personality of each and every person in the organization

2. To maintain a sound relationship between each employee and his supervisor

3. To develop the sense of team spirit, team work, and inter team collaboration in the organization

5. To generate systematic information about human resources for the purposes of manpower planning, placement and the like
6. To develop the overall health and capabilities of the total organization
7. To develop the mind and overall personality of each and every person in the organization
8. To provide a comprehensive framework for the overall development of people in the organization

Ans. to Q.6: a) True b) False

Ans. to Q.7: The indicators of human resource development are-

1. Longevity- It means life expectancy at birth. In other words longevity refers to the number of years a newly born baby is expected to live. At present life expectancy in India is 63 years. The value of this index varies between 0 and 1.
2. Education- This index measures the level of educational attainment of the people. The expected years of schooling for school age children and average years of schooling in adult population is calculated. Like the longevity index the value of this index also varies between 0 and 1. Higher the level of this index, higher will be the education level. India's educational attainment rate at present is about 0.57 or 57 percent.
3. Income- This index indicates the per capita income of the individuals which will give idea about the living standard. A higher level of income will indicate a better standard of living of the individuals and vice versa. The real GDP per capita is calculated which is a better measure of the quality of life of the people as compared to per capita income

14. 10 MODEL QUESTIONS

Short Questions (Answer each question in about 100 words)

Q1: What is human resource development?

Q2: Write two objectives of human resource development.

Q3: Human resource development includes both micro and macro aspects. Explain.

Q4: Point out the indicators of human resource development.

Essay type Questions (Answer each question in 300-500 words)

Q1: Write the significance of human resource development.

Q2: What are the objectives of human resource development?

Q3: Explain the features of human resource development.

Q4: What are the indicators of human resource development? Explain each of them.

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UNIT 15: MILLENNIUM DEVELOPMENT GOALS

UNIT STRUCTURE

15.1 Learning Objectives

15.2 Introduction

15.3 Millennium Development Goals (MDGs)

15.4 The Eight Millennium Development Goals

15.5 Importance of Millennium Development Goals

15.6 Critical Analysis of MDGs

15.6.1 Achievements of MDGs

15.6.2 Failures of MDGs

15.7 Let us sum up

15.8 Further Reading

15.9 Answers to Check Your Progress

15.10 Model Questions

15.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- know what is meant by Millennium Development Goals
- define the key concepts of Millennium Development Goals
- identify different targets and indicators of MDGs
- know the importance of MDGs
- assess the successes and failures of MDGs

15.2 INTRODUCTION

Just before the beginning of the new millennium, there was an enthusiasm among the developed countries to do something for the betterment of millions of people suffering from multiple deprivations across the world. At the Millennium Summit of the U.N. General Assembly in September 2000, leaders from 189 countries, both developed and developing, came together. They agreed on a vision for the future. They pledged to work together to make a better world for all by 2015. The heads of countries unanimously signed and adopted a package which aimed at eradicating extreme poverty, social injustices and inequalities; getting all kids including girls to school, ensuing greater survival prospects for mothers and their infants, better educated children, equal opportunities for women, reversing the AIDS pandemic and a healthier environment based on sustainable development. The vision took the shape of eight Millennium Development Goals (MDGs), which provided a framework for development

planning for countries around the world, and time bound targets by which progress can be measured. Accordingly, eight MDGs were set ranging from halving extreme poverty to halting the spread of HIV/ AIDS and to providing universal primary education.

15.3 MILLENNIUM DEVELOPMENT GOALS (MDGs)

The meeting of the U. N. General Assembly in 2000 concluded in a historic note because it adopted the Millennium Declaration. This Declaration collectively committed their governments to work to free the world from extreme poverty. Towards that end, it endorsed the International Development Goals for 2015: to cut in half the proportion of people living in extreme poverty, of those who are hungry, and of those who lack access to safe drinking water; to achieve universal primary education and gender equality in education; to accomplish a three-fourths decline in maternal mortality and a two-thirds decline in mortality among children under five; to halt and reverse the spread of HIV/ AIDS and to provide special assistance to AIDS orphans; and to improve the lives of 100 million slum dwellers. From the Millennium Declaration, the Millennium Development Goals had emerged.

15.4 THE EIGHT MILLENNIUM DEVELOPMENT GOALS

There are eight goals in MDGs. Each goal is translated into one or more than one targets; the targets, in turn, are expressed in indicators which are to indicate the degree of achievement in the target against goal. The total number of targets of the eight MDGs is 18, and the total indicators are 48 in numbers. Each goal has been designed in a way so that it is easy to understand, easy to implement and easy to measure.

Table 1: MDGs and their Targets

Goals	Targets	Indicators
Goal 1: Eradicate Extreme Poverty and Hunger	1. Halve, between 1990 and 2015; proportion of people whose income is less than $1 a day. 2. Halve, between 1990 and 2015, proportion of people who suffer from hunger.	5
Goal 2: Achieve Universal Primary Education	1. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.	3

Goal 3: Promote Gender Equality and Empower Women	1. Eliminate gender disparity in primary and secondary education, preferably by 2005 and in all levels of education no later than 2015	4
Goal 4: Reduce Child Mortality	1. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.	3
Goal 5: Improve Maternal Health	1. Reduce by three quarters, between 1990 and 2015, the maternal mortality rate.	2
Goal 6: Combat HIV/ AIDS, malaria and other diseases	1. Have halted by 2015 and begun to reverse the incidence of, malaria and other major diseases	7
Goal 7: Ensure Environmental Sustainability	1. Integrate the principles of sustainable development into country policies and programmess and reverse the loss of environmental resources. 2. Halve by 2015 the proportion of people without sustainable access to safe drinking water. 3. Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers.	8
Goal 8: Develop a Global Partnership for Development	1. Develop further an open, rule-based, predicable, non discriminatory trading and financial system. 2. Address the special needs of the LDCs. 3. Address the special needs of landlocked countries and small island developing states. 4. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term. 5. In cooperation with developing countries, develop and implement strategies for decent and productive work for youth. 6. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries. 7. In cooperation with private sector, make available the benefits of new technologies, especially information and communication technologies.	

CHECK YOUR PROGRESS

Q.1: State whether True(T) or False (F)

(i) The MDGs are time bound targets in which progress can be measured. (T/ F)

(ii) The MDGs originated from Millennium Declaration of United Nations. (T/ F)

(iii) Economic Cooperation among countries are not recognized in MDGs. (T/ F)

Q.2: What are the MDGs? (Answer in 50 words)

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Q.3: State the goals of MDGs. (Answer in 50 words)

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15.5 IMPORTANCE OF MILLENNIUM DEVELOPMENT GOALS

The Millennium Development Goals are the most ambitious and most broadly supported development goals ever adopted, making the right to development a reality for everyone. The importance of MDGs can be discussed in several areas—

- The main importance of the MDGs is that they provide a clear framework on which the world is able to reduce the social injustices and inequalities.
- The aim of the MDGs is to liberate the billions of people who currently live in extreme poverty.
- The MDGs aims at reducing poverty. Research shows reducing the number of people in poverty matters for security and stability. A negative shock on income growth increases the probability of a civil war substantially.
- Rising economic wealth for the poor creates new worldwide growth opportunities by opening new consumer markets and commercial activities. If the 4 to 5 billion underserved people are provided opportunities to earn a decent living, it can add trillions of dollars to world economy.
- The MDGs are able to send the message that the issues being faced around the world are not the sole responsibility of the heads of states of the developing nations or developed nations, but it is a collective responsibility that the people of this world must share and be held accountable for.
- The Millennium Project argued that for the first time in history the world is rich enough to eradicate extreme poverty.

CHECK YOUR PROGRESS

Q.4: State whether True(T) or False (F)

i. The MDGs are the most ambitious development goals. (T/ F)

ii. Development is not a right of human being under MDGs. (T/ F)

iii. Reducing poverty is not connected with security and stability. (T/ F)

Q.5: State how the MDGs identify the role of international cooperation. (Answer within 50 words)

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15.6 CRITICAL ANALYSIS OF MDGs

The MDGs were the most ambitious goals of development. It became successful in several areas. In most of the developing countries, the MDGs have formed a critical element of government policy decisions for performance bench marking. Similarly it also identifies that the developed countries themselves are the main hurdle in the development of poor countries.

15.6.1 Achievements of MDGs

The Millennium Development Goals Report 2015 of UNDP highlighted the achievements of MDGs. The report found that the 15 years effort to achieve the eight ambitious goals was largely successful across the globe. The important achievements of MDGs according to this report, are—

- The number of people now living in extreme poverty has declined by more than half, falling from 1.9 billion in 1990 to 836 million in 2015.
- The number of people in the working middle class, living on more than $4 a day, nearly tripled between 1991 and 2015.
- The proportion of undernourished people in developing regions dropped by almost half since 1990.
- The number of out-of-school children of primary school age worldwide fell by almost half, to an estimated 57 million in 2015, down from 100 million in 2000.
- Gender parity in primary school has been achieved in the majority of countries.
- The mortality rate of children under-five was cut by more than half since 1990.
- Since 1990, maternal mortality fell by 45 percent worldwide.
- Over 6.2 million malaria deaths have been averted between 2000 and 2015.
- New HIV infections fell by approximately 40 percent between 2000 and 2013.

- By June 2014, 13.6 million people living with HIV were receiving antiretroviral therapy (ART) globally, an immense increase from just 800,000 in 2003.
- Between 2000 and 2013, tuberculosis prevention, diagnosis and treatment interventions saved an estimated 37 million lives.
- Worldwide 2.1 billion people have gained access to improved sanitation.
- Globally, 147 countries have met the MDG drinking water target, 95 countries have met the MDG sanitation target and 77 countries have met both.
- Official development assistance from developed countries increased 66 percent in real terms from 2000 to 2014, reaching $135.2 billion.

15.6.2 Failures of MDGs

Although considerable achievements have been made on many of the MDG targets universally, progress has not been uniform across regions.

Goal	Failure
Goal 1: Eradicate Extreme Poverty and Hunger	➢ Despite remarkable progress, about 800 million people continue to live in absolute poverty and suffer from hunger. More than 160 million children below five years have inadequate height for their age because of insufficient food.
Goal 2: Achieve Universal Primary Education	➢ In 2015, 57 million children of primary school age do not attend school. ➢ Compared to children in the richest households, those in the poorest households are four times more likely to be out of school.
Goal 3: Promote Gender Equality and Empower Women	➢ Gender inequality persists. Women in many parts of the world continue to face discrimination in access to economic assets, work, and participation in public and private decision making. They are also more likely to live in poverty compared to men. ➢ In the Caibbean and Latin America, the ratio of women to men in poor households grew from 108 women for every 100 men to 117 for every 100 men between 1997 and 2012, despite the decreasing rate of poverty for the entire region. ➢ With regard to the global labour market, women remain to be at a disadvantage, as three-quarters of working age men take part in the labour force compared to only fifty percent of working age women. Women also earn 24 percent less than men worldwide.

Goal 4: Reduce Child Mortality	➢ About 16,000 children die each day before they reach five years of age, mostly due to preventable causes. ➢ Huge gaps still exist between the poorest and richest households, as well as between rural and urban areas. ➢ Under-five mortality rates are nearly twice as high for children in the poorest households compared to the wealthiest households.
Goal 5: Improve Maternal Health	➢ The maternal mortality ratio in developing nations is 14 times higher than in the developed nations. ➢ Just 50 percent of pregnant women in developing countries can receive the recommended minimum of 4 antenatal care visits. ➢ In rural areas, 44 percent of births are done in the absence of skilled health personnel, compared with 13 percent in urban areas.
Goal 6: Combat HIV/ AIDS, malaria and other diseases	➢ An estimated 36 percent of the 31.5 million people living with HIV in developing nations were said to be receiving ART in 2013.
Goal 7: Ensure Environmental Sustainability	➢ Close to 5.2 million hectors of forest cover were lost in 2010. ➢ Climate change and environmental degradation undercut progress achieved. ➢ Global emissions of carbon dioxide have increased by more than 50 percent since 1990. The surge in greenhouse gas emissions has impacted climate change with regard to weather extremes, altered ecosystems etc. ➢ The overexploitation of marine fish stocks resulted in the decline in the percentage of stocks within the safe biological limits—from 90 to 71 percent between 1974 and 2011. ➢ Water shortage affects 40 percent of the global population and is projected to increase. ➢ Nearly 50 percent of global workers continue to work in vulnerable conditions, and rarely get to enjoy the fruits associated with decent work. ➢ In 2015, an estimated 2.4 billion people use unimproved sanitation facilities, including 946 million people still practicing open defecation. ➢ In 2015, 880 million people are estimated to be living in slum-like conditions in the developing region's cities.

Goal 8: Develop a Global Partnership for Development	➢ The developed countries refused easy access of their markets to poor countries. ➢ Conflict remains the greatest threat to human development. ➢ By 2015, conflicts had forced nearly 60 million people to leave their homes. ➢ 50 percent of the global refugee population is made up of children, which has contributed to the increase in number of out-of-school children from 30 percent to 36 percent between 1999 and 2012.

CHECK YOUR PROGRESS

Q.6: State whether True(T) or False (F)

i. The MDGs have failed completely. (T/ F)

ii. The progress of MDGs has been uniform across the regions. (T/ F)

iii. HIV infections fell in the world after the adoption of MDGs. (T/ F)

Q.7: Write the contribution of MDGs in reducing poverty. (Answer in 40 words)

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15.7 LET US SUM UP

- **Millennium Development Goals** refer to the eight goals that were adopted under Millennium Declaration in 2000.
- MDG has **eight goals**. Each goal is translated into one or more than one targets; the targets in turn are expressed in indicators which are to indicate the degree of achievement in the target against goal.
- The total number of targets of the eight MDGs is 18, and the total indicators are 48 in numbers.
- The MDGs grew out of the agreements and resolutions of world conferences organized by the United Nations in the 1990s. Especially, MDGs succeed the International Development Goals (IDGs).
- The MDGs reflect an unprecedented commitment by the world's leaders to tackle the most basic forms of injustice and inequality in the world—poverty, illiteracy and ill health.
- The MDGs emphasize international cooperation. They send the message that the issues being faced around the world are not the sole responsibility of the heads of states of the developing nations or developed nations, but it is a collective

responsibility that the people of this world must share and be held accountable for.

- After 15 years, effort to achieve the eight ambitious goals has been largely successful across the globe.
- UNDP reports confirm that MDGs can lift millions of people out of poverty, empower women and girls, improve health and well being, and provide vast new opportunities for better lives.
- The progress of MDGs has not been uniform across regions.
- Although there were some failures in implementation of MDGs in certain regions yet MDGs are a milestone in the development process of developing countries.

15.8 FURTHER READING

- Mishra, R. K. & Jayasree Raveendram (ed.) (2011). Millennium Development Goals and India. New Delhi: Allied Publishers Pvt. Ltd
- Agarwal, M. & A. S. Ray (ed.) (2007). Globalization and the Millennium Development Goals: Negotiating the Challenges, New Delhi: Social Science Press
- Clark, M & Simon Feeny (2013). Millennium Development Goals- Looking Beyond 2015, New York: Routledge
- Mahanta, P. J., C. Sharma & B. Saikia (ed.) (2012). MDGs and Human Development: Performances in North East India, Morigaon, Assam: Morigaon College
- UNDP, Human Development Report, New York: Oxford University Press

15. 9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q.1: i. True ii. True iii. False

Ans. to Q.2: The MDGs are a set of plans ranging from reducing hunger and poverty to the improvement of environment and other conditions in poor countries around the world. Originated from Millennium Declaration of the UN, the eight goals are the most broadly shared, comprehensive and focused framework for reducing poverty at the international level.

Ans. to Q.3: There are eight goals in MDGs. They are- Eradicate Poverty and hunger, Achieve Universal Primary Education, Promote Gender Equality and Empower Women, Reduce Child Mortality, Improve Maternal Health, Combat HIV/AIDS, malaria and other diseases, Ensure Environmental Sustainability and Develop a Global Partnership for Development

Ans. to Q.4: i. True ii.False iii. False

Ans. to Q.5: The MDGs were able to send the message that the issues being faced around the world are not the sole responsibility of the heads of states of the developing - nations or developed nations, but it is a collective responsibility that the people of this world must share and be held accountable for. This brings in the role of inter national co-operation

Ans. to Q.6: i. False ii. False iii. True

Ans. to Q.7: The number of people now living in extreme poverty has declined by more than half, falling from 1.9 billion in 1990 to 836 million in 2015. Similarly, after the adoption of MDGs the number of people in the working middle class, living on more than $4 a day, nearly tripled.

15.10 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q.1: What are millennium development goals?

Q.2: Write the background of the adoption of MDGs?

Q.3: "The MDGs are more than just goals." Comment.

Q.4: What are the features of MDGs?

Easy type Questions (Answer each question in about 300-500 words)

Q.1: Explain the eight goals in MDGs.

Q.2: Discuss the importance of MDGs.

Q.3: Briefly analyze the achievements of MDGs.

Q.4: Mention the failures of MDGs.

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REFERENCES

- Agarwal, R.C (2002). Economics of Development & Planning, Vikas Publishing House, First edition.
- Agarwal, M. & A. S. Ray (ed.) (2007). Globalization and the Millennium Development Goals: Negotiating the Challenges, New Delhi: Social Science Press
- Clark, M & Simon Feeny (2013). Millennium Development Goals- Looking Beyond 2015, New York: Routledge
- Dhar, P.K. (2014). Indian Economy: Its Growing Dimensions, Kalyani Publishers.
- Dreze, J. & Amartya Sen (2013). An Uncertain Glory: India and its Contradictions, Penguin, UK.
- Ghatak, S. (2003). Introduction to Development Economics, Routledge, New York
- Gupta, S. K. & Joshi, R. (2010). Human Resource Management. New Delhi, Kalyani Publishers
- Harbison, F. and Charles A. Myers (1998). Education, Manpower and Economic Growth, New Delhi, Oxford & IBH Publishing Co.
- Jhingan, M. L. (1992). Economics of Development and Planning, Konark Publishers Pvt. Ltd., Delhi.
- Lekhi, R. K. (2014). Introduction to Development Economics. New Delhi, Kalyani Publishers
- Lekhi, R, K (2008). The Economics of Development and Planning, Kalyani Publishers
- Lekhi, R.K.(2013). Development Economics, Kalyani Publishers
- Lekhi, R. K. & Aarti Nayar (2005). Development and Environmental Economics. New Delhi: Kalyani Publishers
- Mahanta, P. J., C. Sharma & B. Saikia (ed.) (2012). MDGs and Human Development: Performances in North East India, Morigaon, Assam, Morigaon College
- Meier, G.M., & James E. Rauch (2009). Leading Issues in Economic Development, Oxford University Press
- Mishra, R. K. & Jayasree Raveendram (ed.) (2011). Millennium Development Goals and India. New Delhi: Allied Publishers Pvt. Ltd
- Misra S,K & V K Puri (2006). Economics of Development and Planning, Himalaya Publishing House

- Raj F, Mukherjee M, Ghose A & Nag RN (2011). Contemporary Development Economics, New Central Book Agency (P) Ltd., Kolkata.
- Ray, Debraj (1998). Development Economics, Princeton University Press, New Jersey.
- Ronald, G (2014). Development Economics, Routledge, New York.
- Sharma, R. (2011). Human Resource Development. Delhi, Lakshmi Narayan Agarwal Publisher
- Somashekhar, Ne. Thi (2003). Development and Environmental Economics, New Age International Publishers, New Delhi
- Thirwall, A.P.(2011). Economics of Development, Edward Elgar Publishing
- Todaro, Michael P. and Stephen C. Smith (2009). Economic Development, Pearson.
- UNDP, Human Development Report (various issues), New York: Oxford University Press