

UNIT

1

Understanding Development: Perspectives, Measurement and Sustainability

Learning Objectives

- To know the meaning of development from different perspectives
- To know the indicators of economic development
- Understand the meaning of economic development
- To know the policies for sustainable development



Introduction

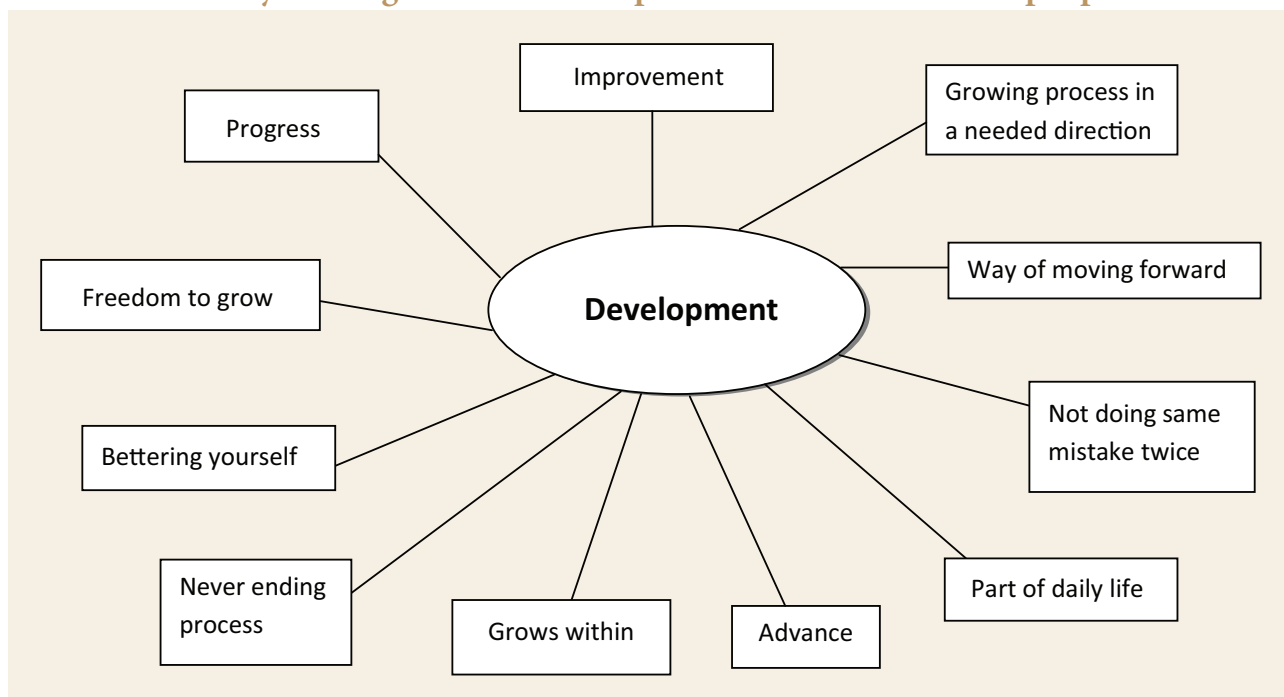
The word 'development' is used widely. It refers to the progress of a particular field or a particular person. Similarly, the economic progress of a country is known as 'economic development'. However, the interpretation of the concept development keeps on changing from time to time, from person to person and its meaning gets extended further.

1.1

Different Perspectives About Development

Every human being has an ambition or desire of his or her own to achieve progress in life. Similarly, we have ideas about how a country should progress. If our thinking turns towards progress and about the ways to achieve the many goals for progress, it leads to development.

Let us try to imagine what development means to different people.



From the above chart, you will notice that other than income, people seek freedom to grow on their own. Thus, development refers to the improvement in quality of life such as higher income, better education, better health and nutrition, less poverty and more equal opportunity.

The term 'economic development' refers to the overall growth of all sectors of the economy by adoption of new technologies. Economic development improves the living standards of the people as well as the status of the country.

1.2 Indicators of Economic Development

The major indicators to measure the level of economic development are Net National Product (NNP), Per Capita Income (PCI), Purchasing Power Parity (PPP) and Human Development Index (HDI).

DO YOU KNOW? Final money value of total goods and services produced within the geographic boundaries of a country during a specified period of time, normally a year is known as Gross Domestic Product (GDP).

Net National Product

The Net National Product (NNP) is considered as a true measure of national output. It is also known as national income. A rise in per capita income means an increase in aggregate real output. Hence, this is a better indicator than national income for measuring development.

For measuring a country's development, its income is considered to be one of the most important factors. Countries with higher income are considered to be more developed than those with lesser income. So, income itself is considered to be one of the indicators of economic development.

Per Capita Income

However, for comparing the development of various countries, total income is not satisfactory measure. Since countries have different populations, comparing total income will not be suggestive of what an average person is likely to earn, as people in one country are better off than others in a different country? The average income is calculated by dividing the country's total income by its total population. The average income is also called per capita income. Calculations on the per capita income of all countries are calculated only in the US dollar in order to compare International level.

Per Capita Income



According to the World Bank report, new income measurements of countries are classified as below (2017-18)

S. No.	Types of Countries	Per Capita Income (US Dollar)
1	Low Income	< 1005
2	Lower Middle Income	1006-3955
3	Upper Middle Income	3956-12,235
4	High Income	> 12,235

Source: www.worldbank.org

Purchasing Power Parity

Purchasing power parity is defined as the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as one dollar would buy in the US.

The technique of purchasing power parity allows us to estimate what exchange between two currencies is needed to express the accurate purchasing power of the two currencies in the respective countries. Recently, India became the third largest

economy in terms of PPP. China became the largest defeating the US to the second position.

Human Development

Human resource is necessary for the progress of any country. The term 'human resources' refers to the collective abilities of people, which can be utilised in the production sector.



Human resource development means the development of a person's physical and mental abilities through education, health care and training. Therefore, investment in education and health of people can result in a high rate of returns in the future for a country. For example, if a child is invested with good education and health, he or she may turn to be very productive in future in the form of higher earnings and greater contribution to the society. Human Development Index (HDI) which indicates all round development of the people in the society.

In the past, economists believed that the rate of economic growth of nations could be increased only by increasing investment in physical capital. But they have realised over time that investment in human capital is as important as investment in physical capital.



The Ministry of Human Resource Development is responsible for the development of human resources in India. Its headquarters is situated at Shastri Bhavan in New Delhi.



1. 3 Sustainability of Development

Sustainable economic development is taken to mean development without damaging the environment and not compromising with the needs of the future generation.



The consequences of environmental degradation do not respect to national or state boundaries. Sustainability of development is comparatively a new area of knowledge in which scientists, economists, philosophers and other social scientists are working together.

Natural resources can be divided into renewable resources and non-renewable resources.

Renewable resources are replenishable. eg. Solar energy

Non renewable resources are non replenishable eg. Coal, Petroleum.

Groundwater is an example of a renewable resource. The question arises as to how sustainable development is possible if the resources are over-used rather than getting replenished. Non-renewable resources get exhausted after certain number of years of extracting and using them and they cannot be replenished.



Literacy rate of Tamil Nadu is the second highest among the southern states. Tamil Nadu's literacy rate is higher than the national average.

The enrolment for higher education in Tamil Nadu is the highest in India.

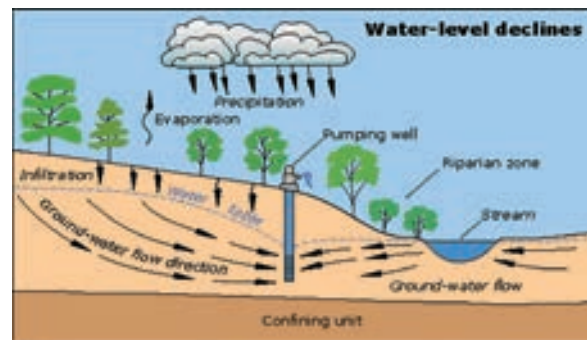
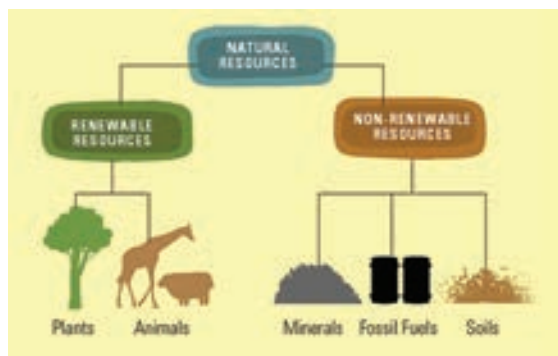
To achieve real sustainability, we need to balance economic, social and environmental sustainability in equal harmony.

In general, the question of development or progress is continuous. At all times, as a member of society and as individuals, we need to ask where we want to go, what we wish to become and what our goals are.



S. No	Parameter	States						India
		Andhra Pradesh	Karnataka	Kerala	Gujarat	Uttar Pradesh	Tamil Nadu	
1	Literacy Rate % (2011)	67.02	75.36	94	78.03	69.72	80.09	74.04
2	Sex Ratio (Females per 1000 Males) (2011)	993	973	1084	919	912	996	943
3	Enrolment in Higher Education% (2015–16)	30.8	26.1	30.8	20.7	24.5	44.3	24.5

Source: Niti Aayog



Renewable resources

Renewable resources are replenishable resources are pollution free and environment friendly. These resources take a short time for renewal.

Example: Solar energy, wind energy, water, wood, paper.

Non-renewable resources

Non-renewable resources are non-replenishable resources pollute and damage the environment. Million of years are needed for the formation of these resources.

Example: Metals, glass, fossil fuels (coal, petroleum, natural gas, diesel)

1.4

Policies for Sustainable Development

Use of Non-conventional Sources of Energy

India depends on thermal and hydro power plants to meet its power needs. Both

these sources have an adverse environmental impact. Thermal power plants emit large quantities of carbon dioxide, which pollute the environment.



Solar Power in India

Solar power is the conversion of energy from sunlight into electricity either directly using photovoltaic cells or indirectly using concentrated solar power. Solar panels absorb the sunlight as a source of energy to generate electricity. A solar electric system can reliably produce electricity for our home and offices. These distributed solar systems are often installed by home and business owners to reduce their electricity costs. Solar power in India is a fast-developing industry.

Tamil Nadu is the state with highest installed solar capacity in India. Tamil Nadu is one of the leading solar power producing states in India. As on 31 July 2017, the total installed capacity in Tamil Nadu is 1,697 MW.



1.5

Environmental Policies in India

Environmental policies in India have been evolved considerably over the past three decades. These policies have covered a wide range of issues such as air, water pollution, waste management and biodiversity conservation.

India faces challenges in economic development, which has to be achieved with limited resources, minimum externalities and in the presence of an uncertain climate. One of the approaches to overcome this challenge is through the path of sustainable development.

The Supreme Court of India has interpreted and introduced new changes in environmental protection through a series of directions and judgements.

Article 51A(g) of the Constitution states that “it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.”

Development increases the quality of life. This means that people will have higher incomes, better education, better health and nutrition, less poverty and more equality of opportunity.

List of Environmental Acts in India

S. No	Act	Action
1	National Green Tribunal Act, 2010	Environmental protection and conservation of forests and other natural resources
2	Biological Diversity Act, 2002	To provide for conservation of biological diversity
3	The Environment (Protection) Act, 1986	Providing for the protection and improvement of the environment.
4	Forest (Conservation) Act, 1980	Check deforestation and encourage afforestation of non-forest areas.
5	Water (Prevention and control of pollution) Act, 1974	Provides maintenance and restoration and quality of all types of surface and groundwater.
6	Wildlife Protection Act, 1972	Providing protection to wild animals and birds.

The Growth Story of Tamil Nadu

Tamil Nadu is one of the states having achieved rapid progress with a relatively short period, despite it started from appalling levels of poverty, deprivation and inequality.

During the short period, Tamil Nadu much to the consternation of many economists, initiated bold social programmes such as universal midday meals in primary schools and started putting in place an extensive social infrastructure – schools, health centres, roads, public transport, water supply, electricity connections, and much more. Today, Tamil Nadu has some of the best public services among all Indian states, and many of them are accessible to all on a non-discriminatory basis.

Last but not least, there is no evidence that the cultivation of human capability has been at the cost of conventional economic success, such as fast economic growth. Tamil Nadu have some of the highest per capita incomes and lowest poverty rates among all Indian states. Economic growth, in turn, has enabled these states to sustain and consolidate active social policies. This is an important example of the complementarity between economic growth and public support.

Source: *An Uncertain Glory* by Nobel laureate **Prof. Amartya Sen**.



Recap

- Development refers to the progress of a particular field or a particular person.
- Economic development means overall growth of all sectors of the economy.
- The major indicators of economic development are Per Capita Income, Net National Product, Purchasing Power Parity and Human Development Index.
- Human resource is necessary for the progress of any country.
- Sustainable development means development should take place without damaging the environment and preserve it for the future.
- The Wildlife Protection Act 1972 is aimed at protection to wild animals and birds.
- Thermal power plants emit large quantity of carbon dioxide, which is harmful to the environment



EXERCISE



I. Choose the correct answer

1. Assertion(A):

Development increases the quality of life.

Reason(R): People will have higher incomes, better education, better health and nutrition, less poverty.

- a. Both (A) and (R) are true and (R) explains (A)
- b. Both (A) and (R) are true and (R) does not explain (A)
- c. (A) is correct and (R) is false
- d. (A) is false and (R) is true



2. The term 'Human resources' refers to
- investment on poor people
 - expenditure on agriculture
 - investment on assests
 - collective abilities of people
3. For comparing development between countries, their _____ is considered to be one of the most important attributes.
- growth
 - income
 - expenditure
 - savings
4. _____ is considered a true measure of national income.
- GNP
 - GDP
 - NNP
 - NDP
5. The _____ income is also called per capita income.
- average
 - total
 - people
 - monthly
6. Which one of the following country is not a G-8 country
- Japan
 - Canada
 - Russia
 - India
7. Which one of the following country is not a member of SAARC
- India
 - Pakistan
 - China
 - Bhutan
8. **Assertion (A):** The Net National Product (NNP) is considered as a true measure of national output.
- Reason (R):** It is also known as national income.
- Both (A) and (R) are true and (R) explains (A)
 - Both (A) and (R) are true and (R) does not explain (A)
 - (A) is correct and (R) is false
 - (A) is false and (R) is true
9. **Assertion (A):** Human resource is necessary for the progress of any country.
- Reason (R):** Investment in education and health of people can result in a high rate of returns in the future for a country.
- Both (A) and (R) are true and (R) explains (A)
 - Both (A) and (R) are true and (R) does not explain (A)
 - (A) is correct and (R) is false
 - (A) is false and (R) is true
10. The Human Development Index (HDI) does not take into account the following dimension in its calculation
- Gender
 - Health
 - Education
 - Income
11. Among the following states which state have the literacy rate (2011) higher than national average
- Andhra Pradesh
 - Uttar Pradesh
 - Tamil Nadu
 - None of these
12. Sex-ratio means
- the ratio between adult-male and adult female in a population
 - the ratio between female and male in a population
 - the relationship between male of female
 - the number of females per thousand males
13. Inter-generational equality is ensured under the process of
- Industrial progress
 - Economic development
 - Sustainable development
 - Economic growth



14. Find the odd one
- Solar energy
 - Wind energy
 - Paper
 - Natural gas
15. _____ is the state with highest installed solar capacity in India.
- Tamil Nadu
 - West Bengal
 - Kerala
 - Andhra Pradesh
16. _____ resources are those which will get exhausted after years of use.
- Natural
 - Renewable
 - Non-Renewable
 - New
17. Thermal plant emits large quantity of _____, which pollutes the environment.
- Oxygen
 - Nitrogen
 - Carbon
 - Carbon dioxide

II. Fill in the blanks

- Economic progress of any country is known as _____
- The head quarters of HRD Ministry is in _____
- The state having the highest literacy rate in India is _____
- Human Development Report of the world prepared and released by _____
- Groundwater is an example of _____ resource.
- The book *An Uncertain Glory* was written by _____

III. Match the following

- Development - Wild life Protection Act
- Human resource - Renewable resources
- Solar energy - Part of daily life
- 1972 - Education

IV. Give Short answers:

- What do you mean by development?
- What are the indicators of development?

- Why NNP is not considered as an useful measure to compare a country's development with other countries?
- Why human resources is considered as the foremost resource of any country?
- Expand the following: 1. PPP 2. HDI
- Expand the following: 1. NNP 2. PCI
- What is 'Solar Power'?

V. Answer in detail

- Discuss the policies for sustainable development.
- Describe in detail about environmental policies in India.
- Differentiate between renewable and non-renewable resources.
- Mention any five environmental acts and their action.

VI. Projects and Activities

List the various ways in which the problems of garbage and emissions are being dealt with around the world.

VII. HOTS

Write in detail what kind of environmental problems you face in your locality.

VIII. Life Skill

How is the Per Capita income calculated?



INTERNET RESOURCES

- www.imf.org (The International Monetary Fund)
- https://en.wikipedia.org/wiki/sustainable_development
- www.worldbank.org
- Niti Aayog
- hdr.undp.org/en/composite/trends (The United Nations Development Programme)
- http://vikaspedia.in/energy/policy_support/environment_1/forests/generalenvironmental-acts