

ENVIRONMENT & SUSTAINABLE DEVELOPMENT



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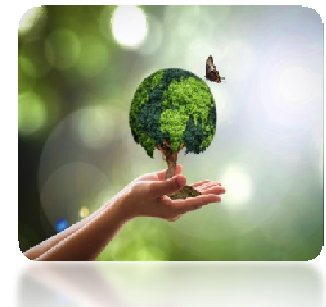
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INTRODUCTION

The concept of “**environment**” has evolved/developed since it started to become a **global issue** in the early 1970s.

The Earth’s ecosystems are in fact **fragile**, and that human beings have been contributing much to its **degeneration**.

The social and economic welfare of human beings is ***closely linked to their environment.***



1. Environment

Environment is a system which provides **natural surroundings** for the **existence of organisms** and it is a prerequisite/requirement for their further evolution.

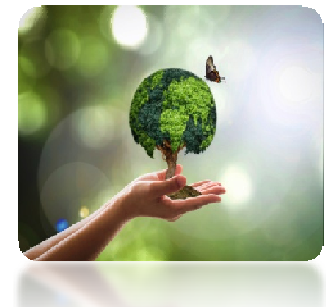
Environment is a set of all factors with which *a living subject interacts, and of all surroundings which encompass it.*



Environment can be seen in different approaches.

Abiotic components of environment (atmosphere, water, minerals, energy etc.)

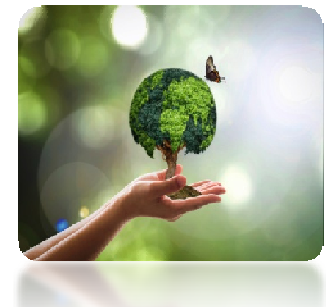
Biotic components of environment (organisms – from the simplest to the most complex) are its main elements.



2. Development

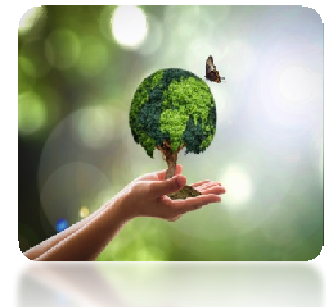
Economic growth was regarded as central to the development endeavors/activities up to the 1980's.

However, development came to be interpreted as **multi-dimensional concept** which should encompass ***material, social, environmental, political and cultural components*** (with all of them having a direct impact on the quality of human life).



Development emphasized over exploitation of resources which in turn, compel human societies to compromise their ability to meet the essential needs of their people in future.

Therefore, sustainable environmental development is recommended by many scholars /intellectuals.



3. Sustainable Development

The term sustainable development began to gain wide acceptance in the late 1980s.

The concept of sustainability has evolved along with our worries about the possible impact of our lifestyle on the environment.

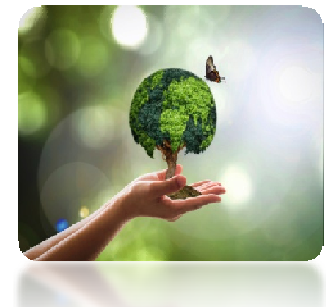
Sustainability means sustaining life within limited capacity of biosphere.



The World Commission on Environment and Development (WCED), in 1987 defined **sustainable development** as:

“development that meets the needs of the present generation without compromising the ability of future generation to meet their own needs“.

This definition has **two crucial elements** – the notion of **needs** and the idea of **inter-generation equity**.



Later the *concept of sustainable development* has been changed from a mere concentration on environmental problems towards comprehension of *three different factors: social, economic and environmental.*

*Ability to meet the needs of present as well as of future generation depends on our ability to **balance all three elements**, so that not a single one is neglected.*



3.1. Four Principles of Sustainable Development

- 1. Decision-making process*** should depend on the best available scientific information and risk analysis.
- In case of uncertainty and threat of serious risks, the ***precautionary /protective principle*** should be involved.
- Environmental impact*** should be taken into account, especially in cases of nonrenewable resources or possible non-reversible effects of human activities.
- Polluters should be responsible*** for effects of their activities according to “polluters pay principle“(PPP).



How to Achieve Sustainable Development?

To achieve the objectives of sustainable development, empowering the following sections of society is a mandatory condition.

1. Women
2. Children
3. Youth
4. Indigenous people and their communities.
5. Scientific and technological organizations
6. Local authorities
7. Workers and trade unions
8. Business and industry.
9. Farmers.
10. NGOs

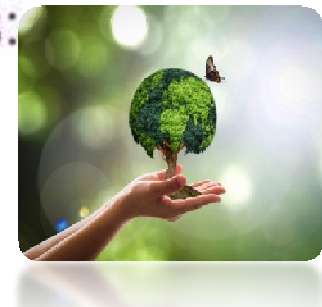


4. The Natural Environment and Economic Growth

The natural environment plays a key role in our economy, as a direct **input into production** and through the many **services it provides**.

The benefits of natural environment range from the essentials for life, including ***clean air and water, food and fuel, to things that improve our quality of life and wellbeing, such as recreation and beautiful landscapes.***

Generally, the natural environment plays an important role in supporting economic activities in **two ways:**



- *Directly*, by providing resources and raw materials such as water, timber and minerals that are required as inputs for the production of goods and services; and
- *Indirectly*, through services provided by ecosystems including carbon sequestering/restoring or removal, water purification, managing flood risks, and nutrient cycling.

Natural resources are, therefore, vital for securing economic growth and development, not just today but for future generations.



5. The Impact of Development on the Environment

Development programs or projects can have **negative or positive impacts on living environment** after/during implementation of the development. For example,

- ***Negative impacts:***

Programs: construction of transport infrastructure, great water dams, cities; mining of natural resources of raw materials and energy etc.

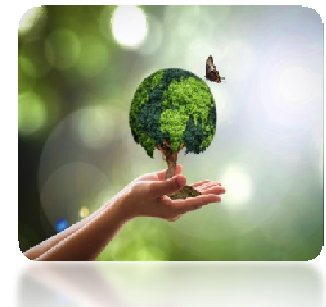


Effects: fragmentation of natural habitats; loss of fertile soil; deforestation and soil degradation; pollution of environment; local climate change etc.

- ***Positive impacts:***

Programs: construction of smaller water dams; application of environment – friendly technologies etc.

Effects: increase in biodiversity; enrichment of landscape by cultural features; sustainable exploitation of environment for present as well as future generations.

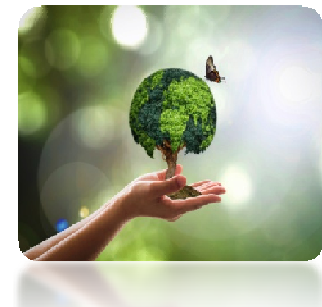


6. The Debate over Economic Growth and the Environment

Economic growth has produced many benefits – raising standards of living and improving quality of life across the world –But, it has also resulted in the depletion of natural resources and the degradation of ecosystems.

For example, the Millennium Ecosystem Assessment (2003) found that 15 out of the 24 ecosystems services it examined were being degraded or used unsustainably.

Therefore, many believed that, the finite resources of the Earth place limits on the extent to which economies can keep expanding in the long-term.



7. The Relationship between Development and the Environmental Condition

The interaction is characterized as *one of interdependence*.

There is *close link between environment and sustainable development* which is used in the broad perspective and the overall development of human beings without any distinction/difference.

Just as development is *impossible without a good condition of living environment*, so quality environment cannot be maintained in inhabited or intensively exploited areas without their *sustainable development*.



Generally, the relationship between economic growth and the environment is **complex and multi-dimensional**.

The economy-environment relationship, can broadly be divided into **three effects** .These are:

1. **The scale effect** – economic growth has a negative effect on the environment.

Increased production and consumption causes increased environmental damage.



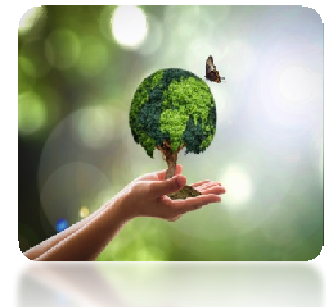
2. **The composition effect** – initially economic growth leads to industrialization and then environmental damage increases.

But through, time the **balance shifts** from producing manufactured goods to producing services, and reducing the level of domestic environmental damage.



3. The technical effect – *technological developments lead to a change in the environmental impacts of production.* For example **improvements in energy efficiency.**

But, it could also represent technological advances that lead to **greater environmental damage** (such as through increased energy use).



8. Policy Implications/Suggestions

Maintaining balance between economic growth and environmental degradation is an uphill or difficult task. Therefore, government interventions are advisable.

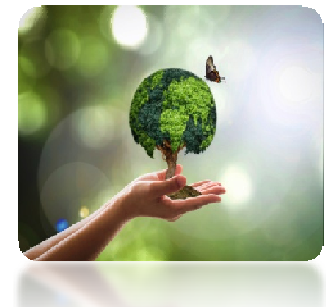
- ❖ For example, developed countries which consume over 70% of the earth's resources can directly contribute to environmental improvement by:
 - A. Reducing harmful emission;
 - B. Developing clean technology for themselves and for less developed countries (LDCs);



C. Changing their own environmentally harmful pattern of demand;

D. Stopping the shifting of dirty industries and dangerous chemicals to underdeveloped countries.

❖ Development of *cleaner technologies and more efficient use of natural resources* should be considered as a major key to reduce the environment impacts of production and of economic activity.



- ❖ Improving the environmental efficiency of production at the global level **should** occurred through **technology and knowledge transfer from developed economies** – for example, in terms of more environmentally sustainable agricultural practices.
- ❖ To replace the old infrastructure and reduce future risks from environmental change, ***investment in new technologies and innovation is required.***



- ❖ Industries should play a great role in reduction of the environmental impact of production, *through greater use of low carbon and renewable energy.*
- ❖ Generally, *well-coordinated efforts* at international, regional and national levels are *imperative/vital* to check depletion of environmental resources and to *ensure sustainable economic development.*





THANKYOU