

## 19. CONCEPT OF SUSTAINABLE DEVELOPMENT

- The present day environmental deterioration provides evidence that misuse and overuse of resources by humans is responsible for unsustainable environment.
- Rapid industrialization, urbanization and the associated consumerism is leading to unsustainable development.
- Sustainable development includes **environmental protection, economic growth and social equity.**



- Humans have made impressive economic progress specially during the past two centuries. This economic growth is primarily directed with the aim of comfortable and luxurious life style for humans. *But at what cost?*



- In United Nations Conference on Environment and Development (the "Earth Summit") held in Rio de Janerio in year 1992, the world leaders signed Framework

Convention on Climate change and Biological Diversity. They adopted Rio Declaration for achieving Sustainable Development in the 21st century.

- Economic growth and development absolutely necessary for the welfare of people even though it causes damage and destruction of our environment.
- Population growth along with unplanned and ruthless exploitation of resource in the name of development is the root cause of our present state of environment.
- We owe the responsibility of handing over the earth and its environment clean and intact to our future generation so we cannot exploit our environment beyond its carrying capacity.



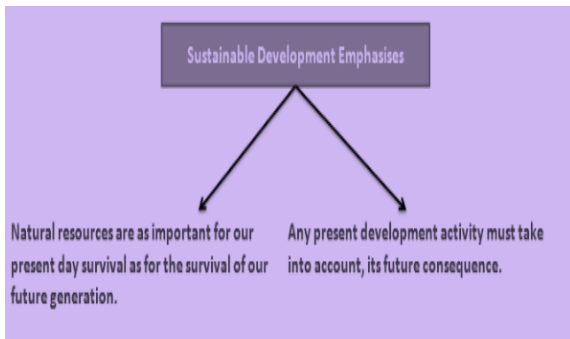
- Earth also has a capacity to bear pressure of continued use, its carrying capacity would be in terms of maximum amount of natural resource drawn from it and maximum amount of pollution discharged into it.



- The **carrying capacity** of the environment may be defined as the environment may be defined as maximum load or pressure or use

that the environment can withstand by economic or other human activities.

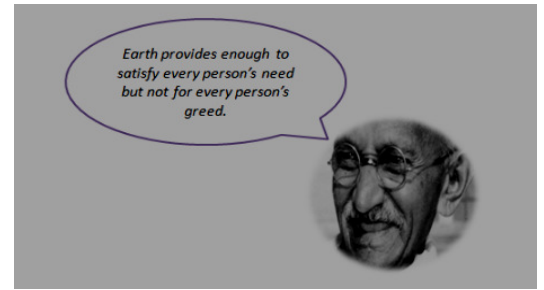
- Nature is finite and we have almost reached a critical point beyond which ecological decline would lead to disaster.
- The World Commission on Environment and Development defined Sustainable development as **"development that meets the needs of the present without compromising the ability of the nature generation to meet their needs"**.



- The various Human activities meant to improve the quality of life are usually accompanied by environment degradation.
- Study the table below that depicts how human activities affect sustainability of the biosphere (based on Lubchenco et. al. 1991)

Human Activities	Intended Results	Improved quality of life
Land cleaning	*Food production	*Fibre production
Agriculture	*Shelter	*Water supply
Forestry	*Consumer goods	*Enjoyment
Fisheries	*Culture	*Knowledge
Grazing		
Water diversion		
Mineral extraction	Unintended Results	Environmental cost
Fuel consumption	*Habitat fragmentation	*Soil degradation
Industrialisation	*Shelter	*Pollution
Urbanisation	*Consumer goods	*Eutrophication
Recreation	*Culture	*Loss of biodiversity

- Mahatma Gandhi's principle of "enoughness" is more relevant at present time than ever before.

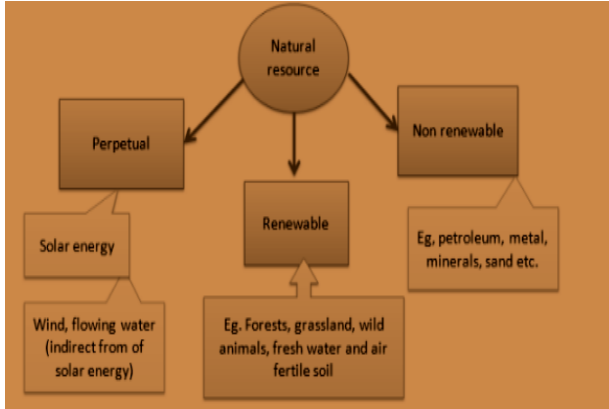


- We must check our "personal greed" and promote a "community need of providing a beautiful life for our posterity/next generation."
- The main causes of unsustainability are "Pressure of ever increasing human population coupled with economic wealth of people (especially in developed countries)." These have significantly increased the degradation of natural resources and threatened biodiversity.

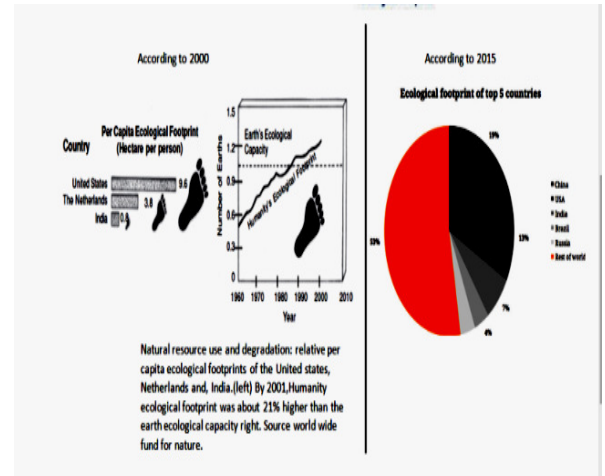


- Resource = anything useful/can be made useful to humans to meet their needs.
- Resources that are freely available to everyone are everybody's property and belongs to no one in particular.
- No one owns these resources and are available to users at little or no charge.
- Hence one feels that it can be damaged and degraded. Thus common properties get over exploited and damaged.
- Similarly roads, gardens, park, our heritage monuments are also public properties and we are generally apathetic and careless towards them or for their maintenance. On the other hand, privately owned houses, agricultural land, industries, offices, gardens etc are taken care of by the owners and beautifully maintained.

- A Change in mindset is needed to care for natural resources.
- Natural resources can be classified as follow.



- Natural resources can be replenished fairly rapidly through natural processes as long as they are not used faster than they are replaced.



- Ecological foot print data as well as the above description early demonstration that there is inequitable sharing of resources is the world today are developing and underdeveloped parts of the world live in a state of deprivation and poverty.
- Resources must be used wisely and judiciary
- Responsibility lies with those where have platy to make sure that enough resources are available to those who do not have



### Check Yourself

1. What was the Rio declaration?
  - a. To achieve sustainable development in 21<sup>st</sup> century.
  - b. To use natural resources judiciously.
  - c. To achieved goal for reducing green house gases.
  - d. To familiar with carrying capacity if environment.
2. Who said this statement?  
“Our earth has enough to our need but not our greed.”
  - a. J.C. Bose
  - b. M.K. Gandhi
  - c. AG Tansley
  - d. SL Bahuguna
3. Wind energy represents:
  - a. Renewable source
  - b. Perpertual source
  - c. Imperpetual source
  - d. Non-renewable source
4. New crops, petroleum products, biocides represents:
  - a. Commercial source of wealth
  - b. Degraded source of wealth
  - c. Perpetual source
  - d. Potential sources of wealth
5. Our motto for sustainable development should be:
  - a. Live and let live
  - b. Careless attitude
  - c. Think globally and act locally
  - d. Judicious use of natural resources

Ans: 1.a      2.b      3.c      4.d      5.c



### Stretch Yourself

1. Define the concept of sustainable development in your words.
2. Which steps can be taken for the development without destruction?
3. What is ecological foot print?
4. What did Gandhiji say about enoughness?
5. How can we conserve fossil fuel in day to day life?



### Test Yourself

1. What is the difference between common and private resource?
2. Explain the quote “think globally and act locally”
3. Suggest any four measures to keep air clean.
4. How can we correlate between population growth and resource availability?
5. Why do you think that there is a need to conserve and manage resources for posterity?