Environment Studies :

-Introduction

-Multidisciplinary approach

-Scope

-Importance

-Public Awareness

Introduction to Environmental Studies

- "Environmental studies" is the scientific study of our environment and our place in it.
- Environmental studies deals with every issue that affects a **living being**.
- **Def:** "Environmental studies" is the study of earth, air, water, living organisms and the man with his impact on environment
- Its components include biology, geology, chemistry, physics, engineering, sociology, health, anthropology, economics, statistics, computers and philosophy.

- Environment Issues Being of International Importance:

  (global warming and ozone depletion, acid rain, marine pollution and biodiversity)

- Problems Cropped in The Wake of development:

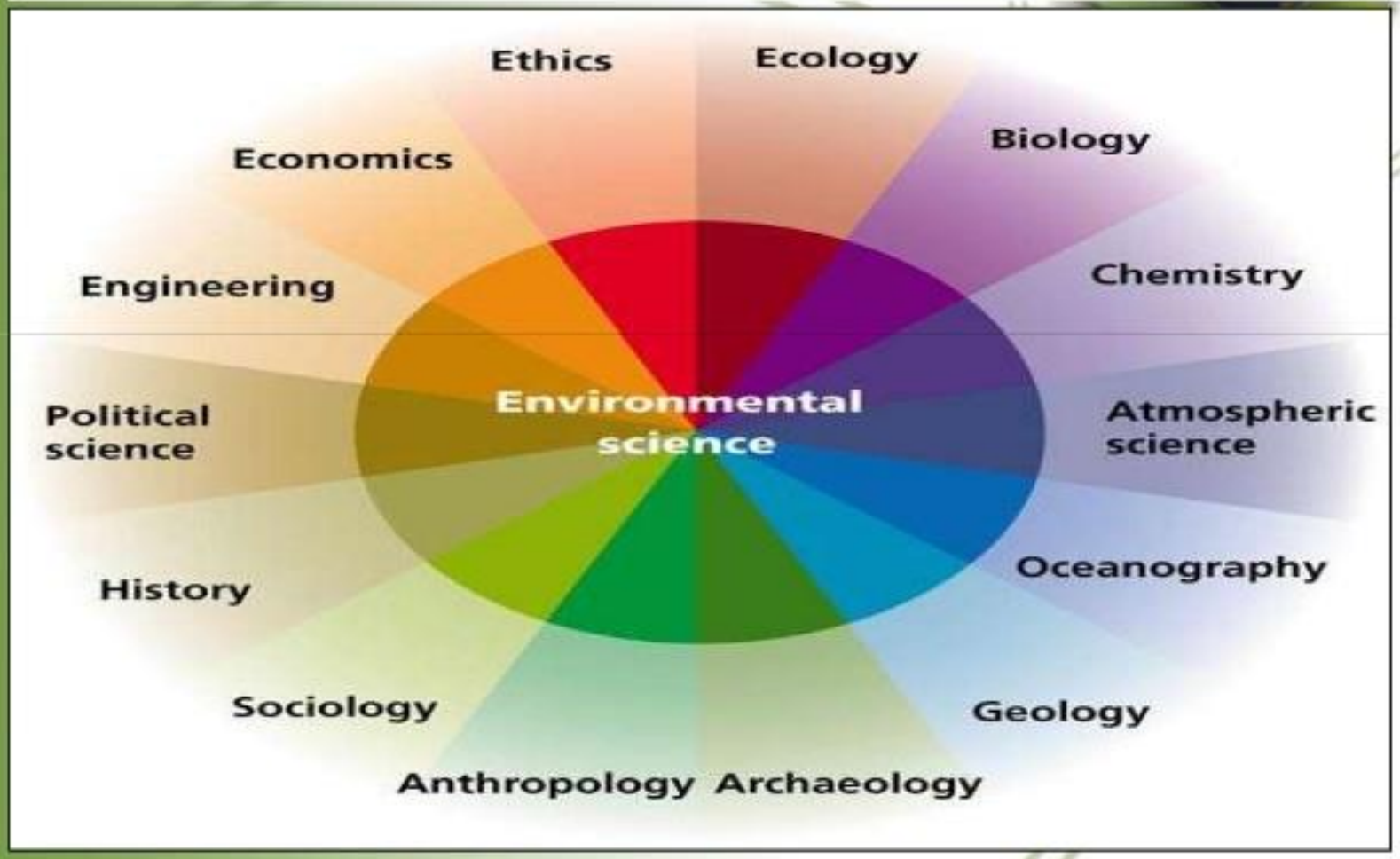
  (Urbanization, Industrial Growth, Transportation Systems, Agriculture and Housing)

The Multidisciplinary nature of environmental studies :

- Environment studies deals with every issue that affects an living being. The components includes biology, geology, chemistry, physics, engineering, sociology, health, economics, statistics, computers and philosophy.

- When one or more such disciplines combine to work together, then it is known as Multidisciplinary Nature

Multidisciplinary nature



- All areas are directly or indirectly affects each other & environment is connected with each of these.
- We can say environment is multidisciplinary in nature.

Scope

- There are two types of Environment

  Natural & Man Made

- When we look around the area we live in, was actually a forest, a river, a mountain or a combination of these – a Natural Landscape. But it has been heavily modified by human beings that is man made.

- We use water – to drink and many other way
- We breath air
- We use resources – to make food
- We are largely depended on the community of living plants and animals.
- All these combined to form a web of life, and we are a part of it.
- Everything around us forms our environment and our lives depend on keeping its vital systems as intact as possible. Our dependence on nature is so great that we cant live without it. So protection of it is very important for our life.

- Most traditions refer to our environment as ‘Mother Nature’
- Due to High population & growing more food by using fertilizers and pesticides, Mega industrial devlopment ,population etc led to rapid economic growth,the ill effects of this type of development generates the **environmental degradation**.

- Two types of natural resource :

  Renewable :

  can be regenerated

  Ex:Air,Water etc

  Non-renewable :

  can't be regenerated(or not in short time)

  Ex:Fuel,oil,Gas etc

- We all are using these directly or indirecly without thinking of its totality in environment.

- In easy words, Our natural resources can be compared with money in a bank. If we use it rapidly, the capital will be reduced to zero. On the other hand, if we use only the interest, it can sustain us over the longer term. This is called **sustainable utilization or development.**

- **For every resource we use we must ask ourselves the following questions:**

  - What is the rarity of the resource and where does it originate?
  - Who uses it most intensively and how?
  - Is it being overused or misused?
  - Who is responsible for its improper use – the resource collector, the middleman, the end user?
  - How can we help to conserve it and prevent Its unsustainable use?

IMPORTANCE :

- Environment is not a single subject. It is an integration of several subjects that include both Science , Social Studies and manyn more .
- So ,It is Multidisciplinary in nature.

Value of mul. dis. Approach:

-Productive value of nature

-Recreational value of nature

-Option value of nature

Productive value of nature

- Biotechnology is fast advancing in this modern world.

- Nature has species(variety) which contain an incredible and uncountable number of complex chemicals that are raw material and can be used for developing new medicines and industrial products.

- Destruction of these species due to human activity is happening rapidly and hence these species might become extinct in near future.

  Hence there is an urgent need to protect these species. Protection of these species by individual or group efforts.

Recreational value of nature :

- Nature encompasses (surround and have or hold within) every aspect of living

  (biodiversity: flora and fauna) and non-living (sea, forest, desert) part of the earth.
- Developing national parks and wildlife sanctuaries in relatively undisturbed areas.
- Enjoy the wilderness – nature tourism or wildlife

  tourism – pleasurable experience and also creates a deep respect and love for nature.

- Urban setting there will be green spaces and gardens– psychological and physical health of city . It also gives access to certain amount of peace and tranquility.

Option value of nature :

- Day-to-day activities have adverse impacts on nature's integrity.
- Present generation's lifestyles and economies are based on unsustainable pattern which can lead to destruction of biodiversity and will leave nothing for future generations.
- So environment study is urgent need of today for us.

- Nature provides us with options to utilize it resources which we can use it either greedily (destroy its integrity and long term values) or sustainably and reducing our impacts on environment.
- Allows us to use its resources sustainably and preserve its goods and services for the future.

Need for public awareness

- Sustainable use of natural resources
- Join an environmental group
- Prevention is better than cure (Prevention of Environmental degradation)
- Importance of green area
- Awareness using mass media (News papers, Radio, T.V.

  etc.,)

Objective of ES

1. An AWARENESS of the environment and its problems.
2. Basic KNOWLEDGE and understanding of the environment and its inter-relationship with man.
3. Social VALUES and ATTITUDES which are in harmony with environmental quality.
4. SKILLS to solve environmental problems.
5. Sense of responsibility and urgency towards environment so as to ensure appropriate ACTIONS to solve environmental problems.
6. Consider environment in its totality.

Environmental Engineering

- Environmental engineering is based on the design and manipulation of environmental processes to obtain a desired outcome.

- Environmental engineers apply their knowledge of the natural sciences (chemistry, biology and microbiology) with their expertise in engineering to solve, prevent or correct environmental problems

Activities handled by Environmental Engineer

- Waste Management,
- Toxic Material Control,
- Water Supply,
- Storm Water Management,
- Solid Waste Disposal,
- Land Management,
- Public Health & safety,
- Radiation Protection,
- Industrial Hygiene,
- Air Quality Control