# ENVIRONMENTAL STUDIES

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Environmental studies is a multidisciplinary academic field which systematically studies human interaction with the environment. Environmental studies connects principles from the physical sciences, commerce/economics, the humanities, and social sciences to address complex contemporary environmental issues.

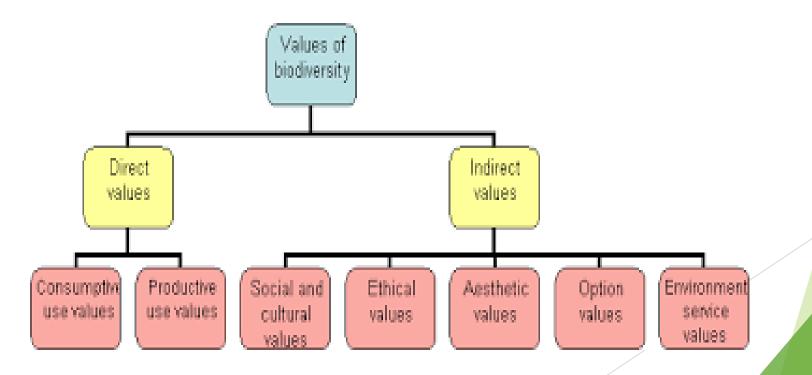
## WHAT ARE THREE ENVIRONMENTAL CONSEQUENCES OF GLOBAL WARMING?

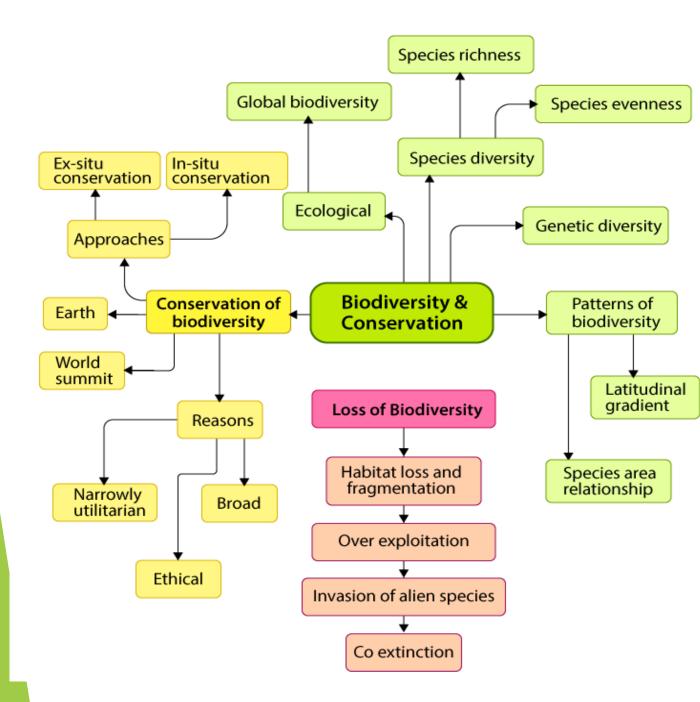
Increased heat, drought and insect outbreaks, all linked to climate change, have increased wildfires. Declining water supplies, reduced agricultural yields, health impacts in cities due to heat, and flooding and erosion in coastal areas are additional concerns.



## **Biodiversity**

The variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable.





**Biodiversity conservation** refers to the protection, upliftment, and management of biodiversity in order to derive sustainable benefits for present and future generations." Table of Contents. Explanation.

#### **Conservation of natural resources**

- take the responsibility to conserve natural resource;
- reduce the consumption of natural resources;
- use non-conventional energy instead of conventional;
- strictly control consumption of resources that are nonrenewable;
- · use smokeless fuel efficient motors.



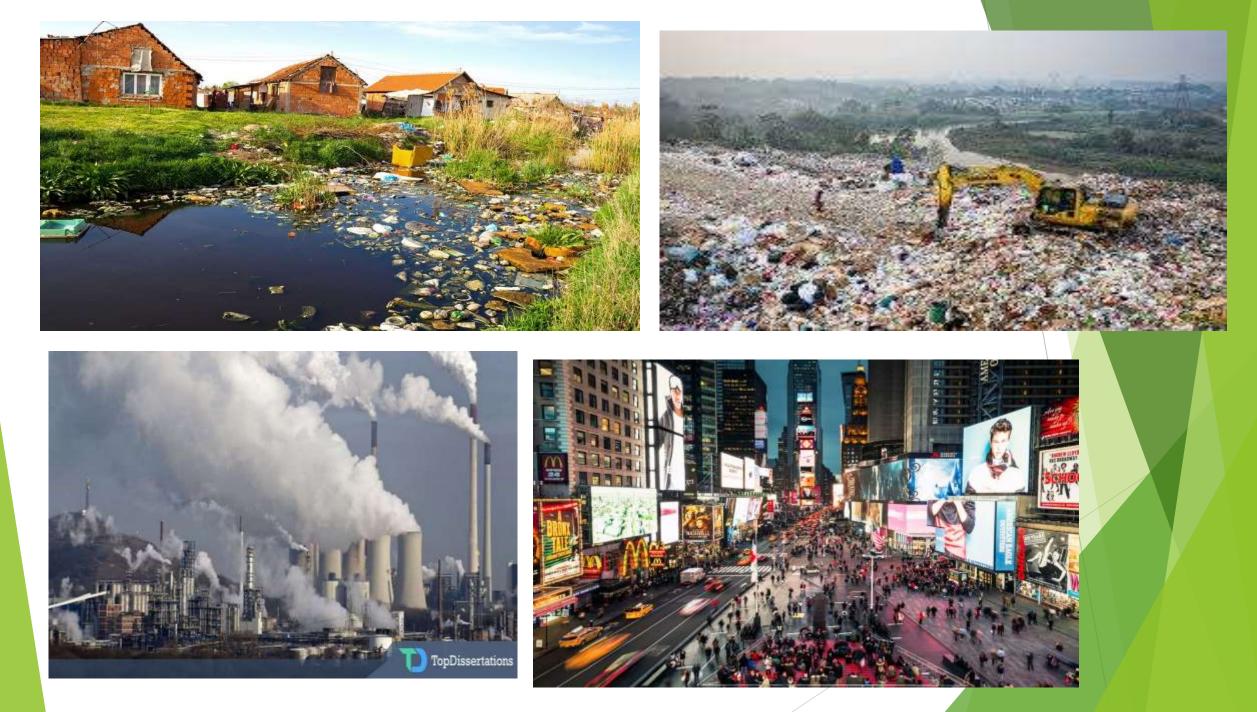
### **SCOPE:**

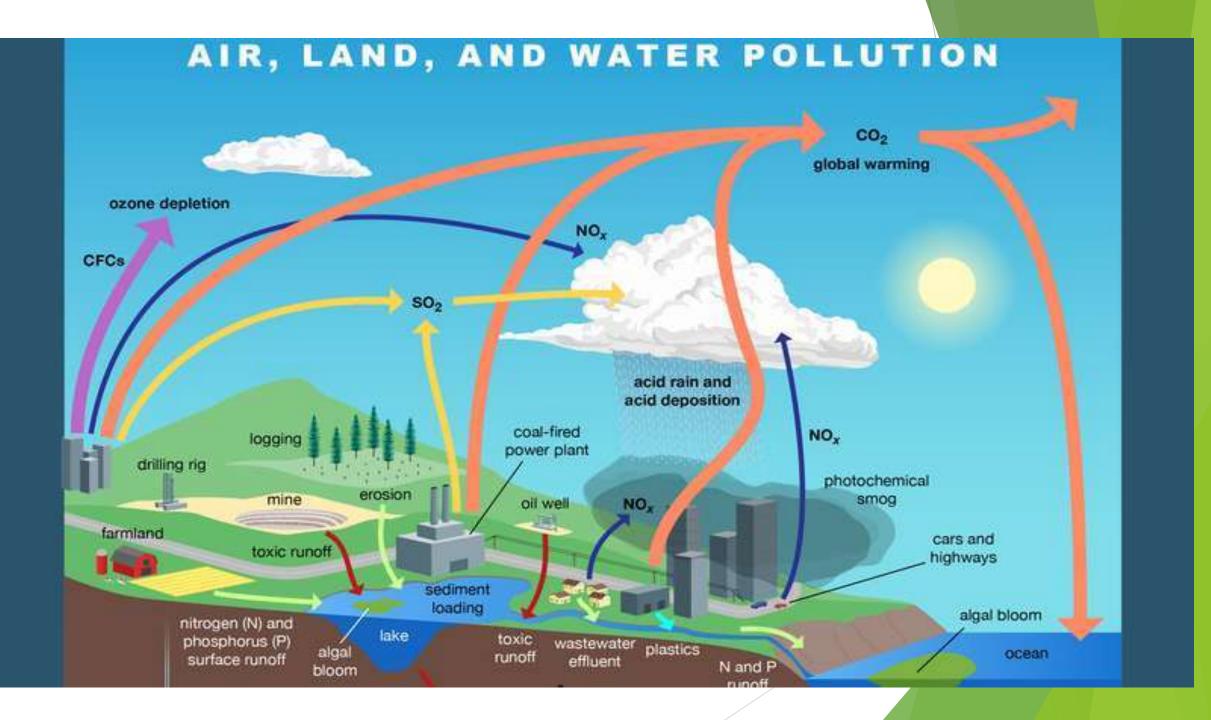
The scope of environmental studies is very wide and it deals with many areas like i) Conservation of natural resources, ii) ecological aspects, iii) pollution of the surrounding natural resources, iv) controlling the pollution, v) social issues connected to it, and vi) impacts of human population on the environment.



### Social Issues

- Urban problems related to ENERGY
- WATER CONSERVATION
- Resettlement and Rehabilitation issues
- Environmental ethics
- Climate Change
- Global Warming
- Acid Rain and Ozone layer Depletion
- Nuclear Accidents and Holocaust
- Wasteland Reclamation
- Consumerism and waste products

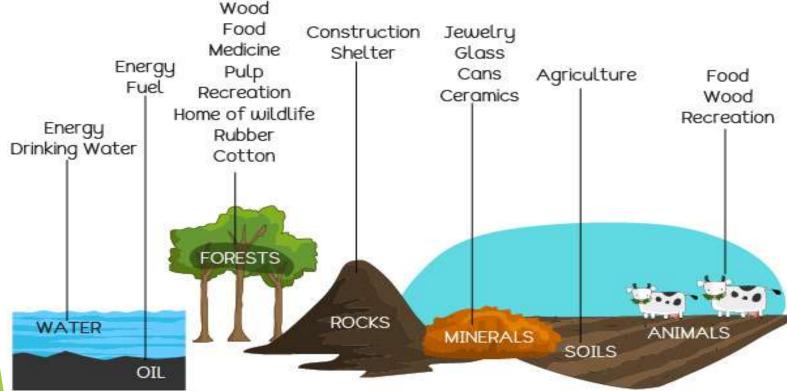




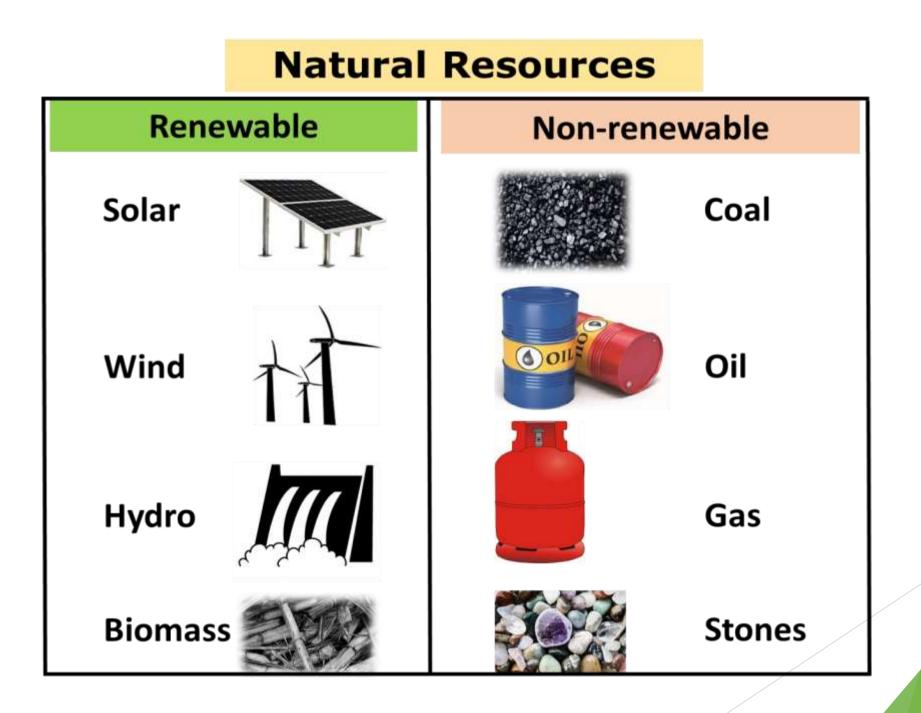
#### **BIOGEOGRAPHICAL CLASSIFICATION OF INDIA**

- Historical Biogeography
- Ecological biogeography
- > Phytogeography
- Floristic regions of India
- Vegetation of India
- Forests of India
- Zoogeography
- Diverse fauna of India
- Classification of Indian region
- Characteristics of this region
- Biosphere reserve

## WHAT IS THE 5 NATURAL RESOURCES?



Oil, coal, natural gas, metals, stone and sand are natural resources. Other natural resources are air, sunlight, soil and water. Animals, birds, fish and plants are natural resources as well.



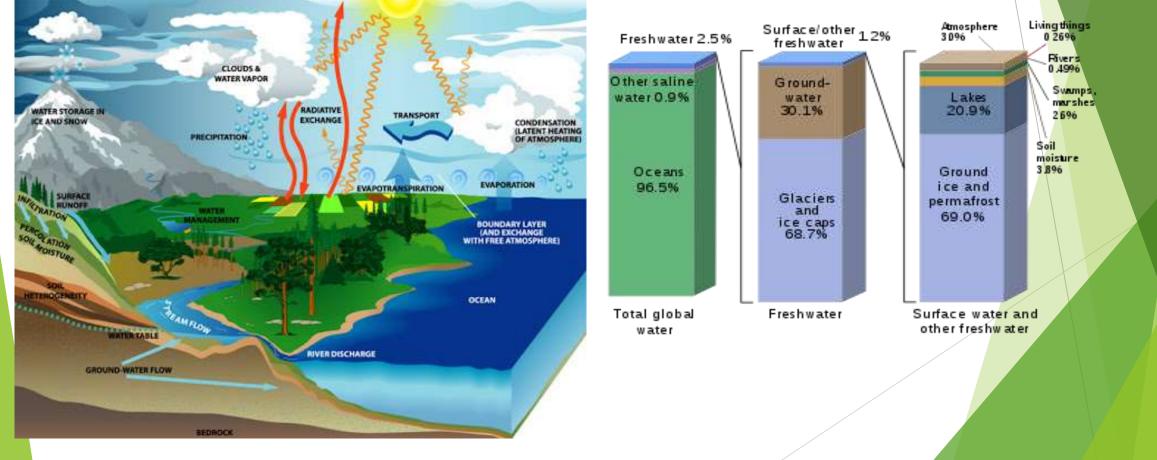
## **Forest Resource:**

Forests provide clean water and air, timber for wood products, wildlife habitats, stable soil, and recreational opportunities, and they beautify the environment. Furthermore, they are also an important economic resource producing marketable timber.



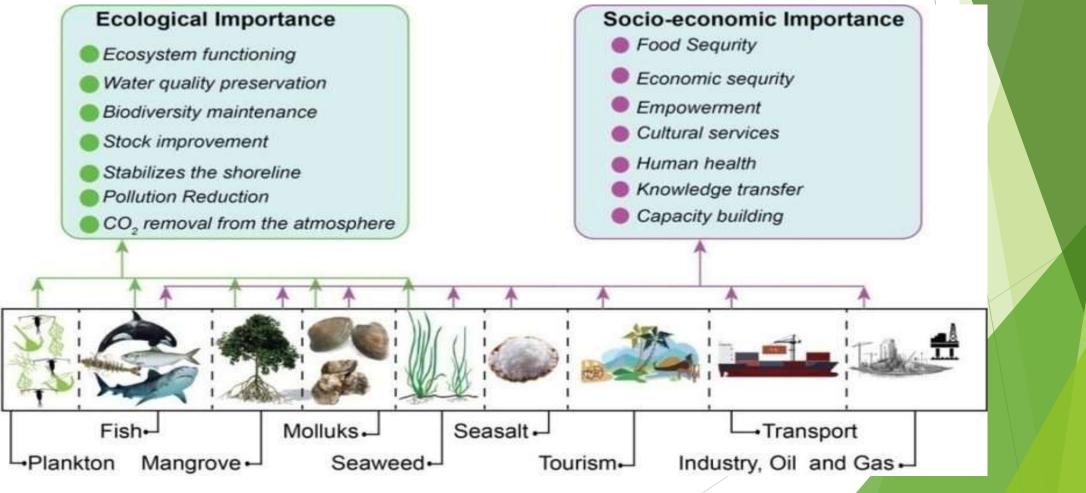
#### Water resources

Water resources are natural resources of water that are potentially useful as a source of water supply. 97% of the water on the Earth is salt water and only three percent is fresh water; slightly over two thirds of this is frozen in glaciers and polar ice caps.



#### Where is Earth's Water?





Marine conservation, also known as ocean conservation, is the protection and preservation of ecosystems in oceans and seas through planned management in order to prevent the overexploitation of these resources. A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.





## Food Resources

 Their Food refers to "any substance that is ingested and is utilised by the body for growth and sustenance of life".

In other words, "natural or artificially produced materials which are used as food to derive metabolic energy are called food resources".

Food is the ultimate source of metabolic energy required for
growth,
body repair,
body heat balance,
daily activities.

#### WHAT ARE LAND RESOURCES?

- Land resources includes all the naturally occurring components of land which can be used for different purposes.
- This may include:-
  - Minerals
  - Agriculture
  - Forests





#### **ENERGY SOURCES:**

The sun is the main source of energy on Earth. Other energy sources include coal, geothermal energy, wind energy, biomass, petrol, nuclear energy, and many more. Energy is classified into various types based on sustainability as renewable sources of energy and non-renewable sources of energy.





Sunlight is one of our planet's most abundant and freely available energy resources. The amount of solar energy that reaches the earth's surface in one hour is more than the planet's total energy requirements for a whole year. Although it sounds like a perfect renewable energy source, the amount of solar energy we can use varies according to the time of day and the season of the year as well as geographical location. In the UK, solar energy is an increasingly popular way to supplement your energy usage. Find out if it's right for you by reading our <u>guid</u> to solar power.

Wind is a plentiful source of clean energy. Wind farms are an increasingly familiar sight in the UK with wind power making an ever-increasing contribution to the National Grid. To harness electricity from wind energy, turbines are used to drive generators which then feed electricity into the National Grid. Although domestic or 'off-grid' generation systems are available, not every property is suitable for a domestic wind turbine. Find out more about wind energy on our wind power page.

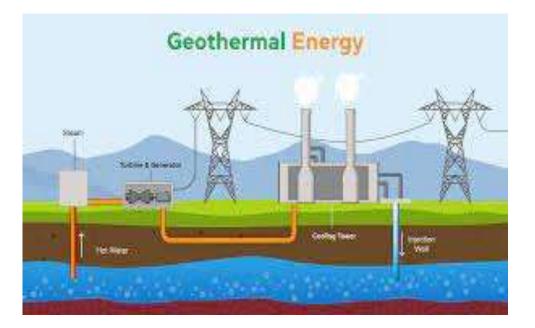


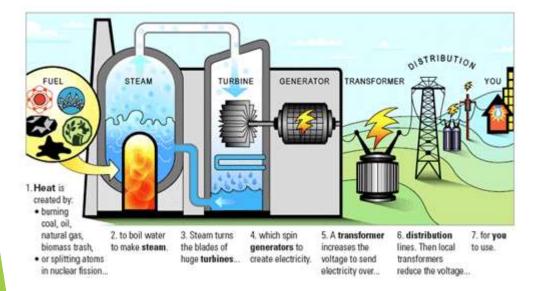


As a renewable energy resource, hydro power is one of the most commercially developed. By building a dam or barrier, a large reservoir can be used to create a controlled flow of water that will drive a turbine, generating electricity. This energy source can often be more reliable than solar or wind power (especially if it's tidal rather than river) and also allows electricity to be stored for use when demand reaches a peak. Like wind energy, in certain situations hydro can be more viable as a commercial energy source (dependent on type and compared to other sources of energy) but depending very much on the type of property, it can be used for domestic, 'off-grid' generation. Find out more by visiting our hydro power page.

#### Tidal energy

This is another form of hydro energy that uses twice-daily tidal currents to drive turbine generators. Although tidal flow unlike some other hydro energy sources isn't constant, it is highly predictable and can therefore compensate for the periods when the tide current is low. Find out more by visiting our marine energy page.





#### Geothermal energy

By harnessing the natural heat below the earth's surface, geothermal energy can be used to heat homes directly or to generate electricity. Although it harnesses a power directly below our feet, geothermal energy is of negligible importance in the UK compared to countries such as Iceland, where geothermal heat is much more freely available.

#### **Biomass Energy**

This is the conversion of solid fuel made from plant materials into electricity. Although fundamentally, biomass involves burning organic materials to produce electricity, and nowadays this is a much cleaner, more energy-efficient process. By converting agricultural, industrial and domestic waste into solid, liquid and gas fuel, biomass generates power at a much lower economic and environmental cost.