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# Natural Resources



Natural resources are resources that exist without human intervention. The sources of value for the characteristics include uses such as commercial and industrial, aesthetics, scientific interest, and cultural interest. Earth's ecosystem includes sunlight, air, land, water, minerals, and vegetation along with all animal life. Nature reserves and our natural heritage can protect our natural resources. Biodiversity and geodiversity are often noted in the ecosystems of certain areas (such as the rainforest in Fatu-Hiva). It is possible to classify natural resources in various ways.

## Define Natural Resources

Humans require many useful things available in nature to live on this planet. These are referred to as natural resources. Air, water, woods, animals, and minerals are some examples. When humans use natural things to make a new thing that increases its value, it is known as a man-made resource.



## Types of Natural Resources

Natural resources are important for living beings. There are many ways of classifying natural resources. The most general category is the amount of resources available for human

consumption. There are two types of energy resources: renewable and non-renewable energy resources.

### Renewable Resource

Renewable resources are those that cannot be depleted. They are always available and thus could be reused. The various types of Renewable resources are given below:

#### Examples of Renewable Resources

**Sun** - The energy obtained from sunlight is solar energy. The sun is the ultimate natural resource for all living beings on the earth. Plants utilize solar energy and make their own food through photosynthesis.

**Wind** - It is an important renewable resource required for the survival of living organisms. Air is important to carry out photosynthesis (the process by which green plants turn carbon dioxide and water into food using energy from sunlight) and respiration (the inhaling of oxygen and the exhaling of carbon dioxide) in plants and animals, respectively. The energy that is obtained from wind is termed as wind energy.

**Water** - Water is required for survival. Humans use water for a variety of reasons, including drinking, washing, cooking, and cultivating crops. Hydro energy is generated by water flowing into a river or water held in a dam. Hydro energy is power that is generated from moving water such as rivers.

Converting hydro energy into electrical energy is a simple way to utilize it. Electrical energy is a specific form of energy that is the result of an electric charge. Electrical energy is a specific form of energy that is the result of an electric charge.

**Soil**- Soil is a valuable resource as it is the layer in which plants grow. Living beings require food to live. Plants produce most of the food that is required by living organisms.

**Biogas**- Biogas is a form of fuel that is a mixture of gases such as methane, carbon dioxide, hydrogen, and other gases produced by the breakdown of animal and plant wastes such as animal dung in the presence of water with the help of microorganisms. It is commonly used as a fuel for gas stoves, particularly in rural regions.

## Non-renewable Resource

Natural resources that are limited in quantity are referred to as non-renewable resources. These resources cannot be supplied or regenerated in a short duration of time. These resources cannot be reused. The various types of non-renewable resources are as follows.

### Examples of Non-renewable Resources

**Fossil Fuels-** Fossil fuels are non-renewable energy sources. This means that they will ultimately be finished, which is why energy prices are rising. Fossil fuels consist of coal, natural gas and petroleum.

**Coal-** Coal is used as a fuel, to generate electricity, and in factories and steam engines.

**Natural gas-** Natural gas, often known as compressed natural gas, is an excellent alternative to petrol and diesel. It burns quickly and generates a large amount of heat. It's an excellent source of hydrogen.

**Petroleum-** Mineral oil or crude oil are other names for petroleum. Petrol, diesel, cooking gas, and kerosene are all made from this liquid mineral. It can be found deep within the earth.

**Nuclear energy-** This energy source involves use of radioactive material that is found in nature. Uranium is primarily used to make nuclear reactor fuel rods. Heat is generated when neutrons (neutral particles present in the atom) hit with the fuel rods. This converts water to steam, which is used to move turbines. As a result, it generates electricity.

### Difference Between Renewable and Non-renewable Resources

	Renewable Resources		Non-renewable Resources
1.	It can be reused or recycled and used multiple time.	1.	It cannot be reused or recycled.
2.	Can be replaced by natural processes in a short duration of time or can be recycled.	2.	These are natural resources that either cannot be replaced or may take millions of years to be replaced by natural processes like coal and oil.



3.	Some of the examples are: wind energy, solar power, hydroelectricity, geothermal.	3.	Some of the examples are: petrol, coal, Natural gas, nuclear energy, fossil fuels.
4.	There is no harm to the environment by using renewable resources.	4.	Huge harm done to the environment because of the harmful emissions.

### Facts

- Non-renewable resources like fossil fuels release harmful chemicals into the air when they are burned.
- Renewable resources are so abundant that they almost never run out.
- One wind turbine can generate enough electricity to power 1,400 households.
- Renewable energy creates three times more jobs than fossil fuels can create.

### Natural Resources Associated Problems

#### Exploitation of Resources



Natural resources are prone to exploitation, which is their biggest problem. As a result of the use of these resources, economic expansion often degrades the environment. When methods of extracting raw materials were developed in the 19th century, this problem gained momentum. The development of mining, steam power, and various machines during this time helped mankind gain

access to these materials more easily. Over the course of the 20th century, we continued to consume energy at a faster and faster rate, and today fossil fuels provide most of our energy needs. Getting energy in this manner is causing environmental damage. Our continued exploitation of natural resources also leads to the destruction of the environment via intensive agriculture. Intensive agriculture is a major hindrance to our natural environment. For example, forests are deforested and waterways are polluted. Economic growth and depletion of natural resources are increasing as the world population increases. Due to our destruction of our environment and natural resources, this problem is becoming more severe.

### Overpopulation that brings over exploitation



Almost all natural resources are under pressure due to the growing human population. Overexploitation of these resources often results. Due to overexploitation to support the ever-growing population, resources such as arable land, fresh water, fossil fuels, coral reefs, and wilderness forests are at record low levels. There is an incredible decline in quality of life as a result of this competition for the vital resources that sustain life.

Farmers have converted forests and grasslands into cropland because of intensive agricultural methods. Due to modern-day pressures, natural resources are depreciating, especially forests, wild life, and fertile land, as land is converted into fields for farming, crop-production, and livestock raising. As a result of agricultural waste, fertilizers, and pesticides polluting marine and freshwater environments, a number of natural crop species and aquatic life are also endangered.



## Climate change



Human activities and overpopulation are generating greenhouse gases and carbon footprints in the atmosphere, causing severe changes to climate patterns that threaten biodiversity as well as many other natural resources. As global warming and climate change alter the favorable conditions for survival, species that have adapted to particular environments are highly affected. A profound consequence of global warming and climate change is the destruction of habitats to a degree that threatens biodiversity and the survival of species. Wildlife such as mountain gorillas and rock rabbits may soon become extinct due to global warming because they require cool temperatures high in the mountains.

## Environmental pollution



In addition to being destroyed, a large portion of natural resources is under immense threat from pollution produced by industries and manufactured utilities as well as agricultural products. There are long-term cumulative impacts of soil, air, and water pollution on natural resources and the quality of the environment where they occur. Consequently, serious pollution has reduced the

value of natural resources since it is harsh for the sustainability of both biotic and abiotic components. Natural processes such as water chemistry, soil composition, ocean water, underground water and rock composition are affected by pollution. Acidic lakes, for instance, are unsupportive of aquatic life.

### Land use and development



Lands that are converted into urban settings, housing development projects, commercial centers, industrial sites, parking lots, highway systems, and so on, deprive wildlife and other living organisms of natural habitats. In addition to destroying millions of acres of habitat, this method has also caused much deforestation.

### 20th century



Natural resources are hugely threatened by the lifestyle of modern humans. Humans are expecting a higher standard of living this century, including education, entertainment, recreation,



transportation, clothing, and shelter, all of which will cost more resources and require more production. In other words, it means a greater demand for energy, natural resources and raw materials due to more industrial processes. A sustainable lifestyle is the answer.

