

Essay on Natural Resources and Associated Problems

Human population is growing day-by-day. Continuous increase in population caused an increasing demand for natural resources. Due to urban expansion, electricity need and industrialization, man started utilising natural resources at a much larger scale. Non-renewable resources are limited.

They cannot be replaced easily. After some time, these resources may come to an end. It is a matter of much concern and ensures a balance between population growth and utilisation of resources.

This overutilisation creates many problems. In some regions there are problems of water logging due to over irrigation. In some areas, there is no sufficient water for industry and agriculture. Thus, there is need for conservation of natural resources.

There are many problems associated with natural resources:

Forest resources and associated problems

1. Use and over-exploitation.
2. Deforestation.
3. Timber extraction.
4. Mining and its effects on forest.
5. Dams and their effects on forests and tribal people.

Water resources and associated problems

1. Use and overutilization of water.
2. Floods, droughts etc.
3. Conflicts over water.
4. Dams and problems.

Mineral resource and associated problems

1. Use and exploitation.
2. Environmental effects of extracting and using minerals.

Food resources and associated problems

1. World food problems.
2. Changes caused by agriculture and over grazing.
3. Effects of modern agriculture.

4. Fertilizer-pesticide problems.

5. Water logging and salinity.

Energy resources and associated problems

1. Growing energy needs.

Land resources and associated problems

1. Land degradation.

2. Man-induced landslides.

3. Soil erosion and desertification.

Natural resources

Natural resources are [resources](#) that exist without actions of humankind. This includes all valued characteristics such as magnetic, gravitational, and electrical properties and forces. On earth it includes: [sunlight](#), [atmosphere](#), [water](#), [land](#) (includes all minerals) along with all [vegetation](#) and animal life that naturally subsists upon or within the heretofore identified characteristics and substances. ^{[1][2][3]}

Some natural resources such as sunlight and air can be found everywhere, and are known as ubiquitous resources. However, most resources only occur in small sporadic areas, and are referred to as localized resources. There are very few resources that are considered inexhaustible (will not run out in foreseeable future) – these are solar radiation, [geothermal energy](#), and air (though access to clean air may not be). The vast majority of resources are theoretically exhaustible, which means they have a finite quantity and can be depleted if managed improperly.

Classification

There are various methods of categorizing natural resources, these include source of origin, stage of development, and by their renewability.

On the basis of origin, natural resources may be divided into two types:

- **Biotic** — Biotic resources are obtained from the [biosphere](#) (living and organic material), such as [forests](#) and [animals](#), and the materials that can be obtained from them. [Fossil fuels](#) such as [coal](#) and [petroleum](#) are also included in this category because they are formed from decayed organic matter.
- **Abiotic** – Abiotic resources are those that come from non-living, non-organic material. Examples of abiotic resources include [land](#), fresh [water](#), [air](#) and heavy metals including [ores](#) such as [gold](#), [iron](#), [copper](#), [silver](#), etc.

Considering their stage of development, natural resources may be referred to in the following ways:

- *Potential resources* — Potential resources are those that exist in a region and may be used in the future. For example, [petroleum](#) occurs with sedimentary rocks in various regions, but until the time it is actually drilled out and put into use, it remains a potential resource.
- *Actual resources* — Actual resources are those that have been surveyed, their quantity and quality determined and are being used in present times. The development of an actual resource, such as [wood processing](#) depends upon the technology available and the cost involved.
- *Reserve resources* — The part of an actual resource which can be developed profitably in the future is called a reserve resource.
- *Stock resources* — Stock resources are those that have been surveyed but cannot be used by organisms due to lack of technology. For example: [hydrogen](#).

Renewability is a very popular topic and many natural resources can be categorized as either renewable or non-renewable:

- [Renewable resources](#) — Renewable resources can be replenished naturally. Some of these resources, like sunlight, air, wind, water, etc., are continuously available and their quantity is not noticeably affected by human consumption. Though many renewable resources do not have such a rapid recovery rate, these resources are susceptible to depletion by over-use. Resources from a human use perspective are classified as renewable only so long as the rate of replenishment/recovery exceeds that of the rate of consumption. And they can replenish easily compared to Non-renewable resources.
- [Non-renewable resources](#) – Non-renewable resources either form slowly or do not naturally form in the environment. Minerals are the most common resource included in this category. By the human perspective, resources are non-renewable when their rate of consumption exceeds the rate of replenishment/recovery; a good example of this are fossil fuels, which are in this category because their rate of formation is extremely slow (potentially millions of years), meaning they are considered non-renewable. Some resources actually naturally deplete in amount without human interference, the most notable of these being radio-active elements such as uranium, which naturally decay into heavy metals. Of these, the metallic minerals can be re-used by recycling them,^[5] but coal and petroleum cannot be [recycled](#).^[6] Once they are completely used they take millions of years to replenish.