Topic:

Concepts of natural resources and reserves

What Are Resources?

Anything that can be used to satisfy a need is a resource.

For example: land, minerals, air.

Value of a Resource:

* + - The purely economic value of a resource is controlled by supply and demand.
    - This is, however, a narrow perspective on resources.
    - There are many things that cannot be measured in money.
    - Natural resources like forests, mountains etc. are considered beautiful so they have aesthetic value.
    - Resources also have an ethical value as well, because it is widely recognized that it is our moral duty to protect and conserve them for the future generations.

**Types of Resources**:

Biotic resources:

Biotic resources are those obtained from the biosphere.

Example:

Forests and their products, animals, birds and their products, fish.

Abiotic resources:

Abiotic resources comprise non-living things.

For examples include land, water, air and minerals such as gold, iron, copper.

.Renewable resources:

The resources that can be replenished through rapid natural cycles are known as renewable resource.

These resources are able to increase their abundance through reproduction and utilization of simple substances. Examples of renewable resources are plants and animals who are being replaced from time to time because they have the power of reproducing and maintain life cycles.

Non-renewable resources:

Non-renewable resources are formed over very long geological periods.

* Minerals and fossils are included in this category.
* Since their rate of formation is extremely slow, they cannot be replenished once they are depleted.
* Out of these, the metallic minerals can be re-used by recycling them, but coal and petroleum cannot be recycled.

There are further two types of non-renewable resources:

1. Re-cycle able
2. Non-recycle able

Re-cycle able:

These are non-renewable resources, which can be collected after they are used and can be recycled. These are mainly the non-energy mineral resources, which occur in the earth’s crust and deposits of fertilizer nutrients e.g. phosphate sock and potassium and minerals used in their natural state asbestos, clay, mica etc.

Non-recycle able:

These are non-renewable resources, which cannot be recycled in any way. Examples of these are fossil fuels and uranium, which provide 90% of our energy requirements.

**Natural resources**

1. Forest resources
2. Water resources
3. Mineral resources
4. Food resources
5. Energy resources
6. Land resources

Forest resources:

It is a dense growth of trees, together with other plants, covering a large area of land.About 1/3rd of the world’s land area is forested which includes closed as well as open forests.Forests provide us a large number of commercial goods which include timber, firewood, pulpwood, food items, gum, resins, non-edible oils, rubber, fibers, lac, bamboo canes, fodder, medicine, drugs and many more items, the total of which is estimated to be more than $ 300 billion per year.

Deforestation:

Cuttings of trees call deforestation.

Deforestation rate is relatively less intemperate countries, but it is very alarming in tropical countries where it is as high as 40-50 percent and at the present rate is it estimated that in the next 60years we would lose more than 90 percent of our tropical forests.

Causes of Deforestation:

* Shifting cultivation.
* Fuel requirements
* Raw materials for industrial use
* Development projects.
* Growing food needs
* Urbanization

Water resources:

Water is an indispensable natural resource on this earth on which all life depends. About 97% of the earth’s surface is covered by water and most of the animals and plants have 60-65% water in their body.

It exists as a liquid over a wide range of temperature i.e. from 0 to 100 C. It has the highest specific heat, due to which it warms up and cools down very slowly without causing shocks of temperature jerks to the aquatic life.

Ground water:

About 9.86% of the total fresh water resources is in the form of groundwater and it is about 35-50 times that of surface water supplies.

Surface Water:

The water coming through precipitation when does not percolate down into the ground or does not return to the atmosphere as evaporation or transpiration loss, assumes the form of streams, lakes, ponds, wetlands or artificial reservoirs known as surface water.

Mineral resources:

Minerals are naturally occurring, inorganic, crystalline solids having definite chemical composition and characteristic physical properties. There are thousands of minerals occurring in different parts of the world. However, most of the rocks, we see every day are just composed of few common minerals like quartz, feldspar, biotitic etc. These minerals in turn are composed of some elements like silicon, oxygen, iron etc.

Food resources:

There are thousands of edible plants and animals over the world out of which only about three dozen types constitute major food of humans. The main food resources include wheat, rice, maize, potato, barley, oats etc. about twenty or so common fruits and vegetables, milk, meat, fish and seafood.

Energy resources:

Energy consumption of a nation is usually considered as an index of its development. This is because almost all the development activities are directly or indirectly dependent upon energy. There are wide disparities in per capita energy use between developed and the developing nations.

Land resources:

Land is a finite and valuable resource upon which we depend for our food, fiber and fuel wood, the basic amenities of life.