Biology

CLASS NOTES FOR CBSE

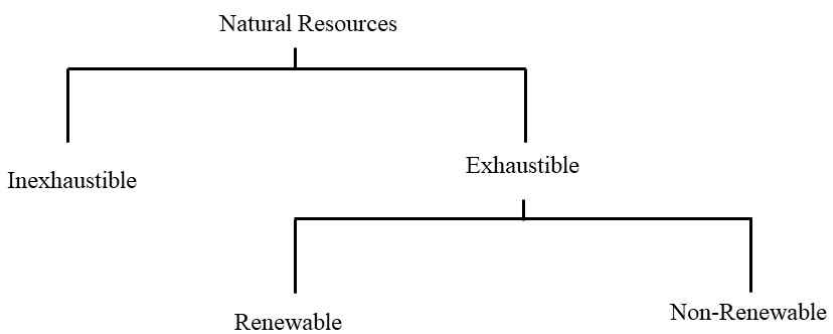
Chapter 06. Natural Resources

Everything that surrounds us is collectively termed as the environment Environment. acts as a life support system for us, since it is from the environment that we get food to eat, water to drink, air to breathe and all other requirements of our day-to-day life.

01. Biosphere and natural resources

Biosphere means regions of Earth's crust and atmosphere occupied by the living organism. Biosphere can be divided into three physical divisions – land or lithosphere, water or hydrosphere and air or atmosphere.
Lithosphere is the outer solid crust of Earth which we call land. its upper weathered part forms the soil.
Hydrosphere is the water component of Earth. 75% of the earth's surface covered 재소 water in the form of seas, rivers, lakes, ponds, impoundments (= reservoirs), dams, etc. Underground water is another component of the hydrosphere. Atmosphere is the blanket of air that covers the whole Earth.

02. Types of Natural Resources



Natural resources are living and non-living components of nature which are used by humans to meet their requirements. Since natural resources are available only from the Earth, they are called Earth resources. are two main types, inexhaustible and exhaustible.

(i) **Inexhaustiblenatural resources** :They are natural resources which occur in such abundance that they are not likely to get exhausted despite continuous use, e.g. , air , water, solar energy.

(ii) **Exhaustible natural resources :** They are natural resources which are available in limited quantity They may to get depleted by continuous and indiscriminate human consumption. Exhaustible resources are of two kinds, renewable and non-renewable.

- **Renewable resources :** They are exhaustible resources which get replenished regularly. These include both living and non-living resources which can replenish themselves by quick recycling, e.g., forests, wildlife soil and underground water. Renewable resources can last for ever if they are used responsibly

03. Air

The multilayered gaseous envelope surrounding the planet Earth is called atmosphere, It is divided into five distinct layers or zones : troposphere, stratosphere, mesosphere, thermosphere (ionosphere) and exosphere Troposphere is the lowest region of atmosphere which contains air It extends from the surface of Earth upto 8 to 20 km. Many important climatic events such as cloud formation, lightening ; thundering, thunder-strom formation etc., akk take place in troposphere air is a mixture of gases such as nitrogen oxygen and carbon dioxide air also contains water vapour and suspended dust particles. Oxygen is required by all living beings for respiration and for burning (combustion) of materials.

Component	Percentage of volume
(a) Nitrogen (N_2)	78.09
(b) Oxygen (O_2)	20.93
(c) Argon (A)	0.93
(d) Carbon dioxide (CO_2)	0.03
(e) Miscellaneous (moisture, dust, etc.)	0.02

Importance of Atmosphere

(i) **Role of Atmosphere in climate control :** Air is an inexhaustible natural resource In a world without air, there would be no plant or animal life, no winds, clouds or rain, no fires and no protection against harmful solar radiations. Air is a bad conductor of heat. the atmosphere keeps the average temperature of the earth fairly steady during the day and during the course of whole year

(ii) **The Movement of Air : Wind :** A cool evening breeze afer a hot day or rain after a few days of hot weather bring us considerable relief Following questions may strike our mind :

(a) What cause the movement of air?

(b) What decides whether this movement of air will be in the form of a gentle breeze, a strong wind or a terrible storm?

(c) What bring the rain ?

Air movement in coastal areas : In coastal areas, during daytime, there is a regular flow of cool air from the seas towards the land. At nigh, there is a reverse flow of air from land to sea. This happens because during the daytime, land gets heated than water. Re-radiation of heat from land air above it. The hot air rises and creates an area of low pressure. Sea water as compared to air over land. Therefore, cooler air over the sea, flows toward the land, where low pressure area exists the movement of air from one region to the other creates winds