**8TH JUNE 2020 JESUS AND MARY SCHOOL MODULE – 3**

**CLASS-IV**

 **SOCIAL STUDIES**

**Natural Resources-Water Resources of India**

**Text book**

**Natural Resources**-

A natural resource is something that is found in nature and can be used by people. Earth's natural resources include light, air, water, plants, animals, soil, minerals, and fossil fuels. Human beings need some natural resources to stay alive, for example, air and water. Some other natural resources are converted into other items of utility by various industries to be used by human beings. For example, cotton is used to make cotton cloth, sugar cane is used to make sugar. Items made by using the natural resources are called human-made resources. Types of Natural Resources-

Natural resources are of two types-inexhaustible' (or renewable) and exhaustible

(or non-renewable).

Inexhaustible Resources (Renewable)-

Some natural resources will never finish, so they are called inexhaustible resources. They can be renewed so they are also called renewable resources.

Let us read about some of the inexhaustible natural resources. Air, water, wind, solar energy, soil, trees, forests, and animals are a few examples of inexhaustible natural resources.

**Air-**Human beings, animals, and plants need air to breathe and live. Without air, life would not be possible on earth. Air is a natural resource which sustains life. Moving air is called wind. Windmills use wind energy to produce electricity. Windmills have been set up in Tamil Nadu,

Maharashtra, and Gujarat.

**Wate**r: Water is one of the world's most precious natural resources. There is a very small amount of freshwater on this planet. 97 per cent is salt water and only 3 per cent is fresh water. Human beings cannot survive without fresh water.

**Soil**: Soil is the top layer of the Earth's surface on which plants grow. Soil provides nutrients for plants and animals. Some of our basic needs like food and clothing come from soil. There are different types of soils. Various types of crops are grown in these soils.

**Trees and Forests**: Trees and plants provide oxygen to breathe, shade and shelter, fruits and vegetables, and food for herbivorous animals. Trees prevent soil erosion. Forests are a very important natural resource because they provide shelter to wildlife, wood, medicinal herbs, timber, and pulp for manufacturing paper.

**Animals:** Animals are a source of a variety of food, For example, milk, cheese, eggs, and meat. We also make clothing from animal fur, for example wool for making woollen clothes.

Solar Energy: Solar energy is derived from the Sun. Nowadays, solar energy is tapped and used for street lighting, in water heaters, and solar cookers. Many villages are getting electricity with the help of solar power.

**Exhaustible Resources (Non-renewable)**

Some natural resources will finish, if they are not used wisely. They are called exhaustible resources. They are also called non-renewable resources.

Let us read about some of the exhaustible natural resources.

Minerals: Minerals are important for industries. Minerals can be broadly divided into two types-non-metallic minerals and metallic minerals. Non-metallic minerals are sand, clay, mica,

limestone, etc. Metallic minerals are found deep inside the Earth, for example iron and manganese. They are available in limited quantity. Once they are used up, we cannot create more of it. Therefore, they are called exhaustible or non-renewable resources.

Fossil Fuels: Fossil fuels' are the remains of plants, animals, and other living things that lived long ago. Fossil fuels include petroleum (oil), coal, and natural gas. These are called fossil fuels because they were buried under the Earth millions of years ago. Fossil fuels are natural fuels.

Coal is a fossil fuel which is found under the Earth. It is an important source of energy. It is used as a fuel to cook, heat, and to generate electricity. It is used in factories. India has large deposits of coal, but they are getting used up. They may not last for a hundred years. Petroleum is the crude form of oil. It is refined to produce petrol and diesel which are used as fuels in many vehicles. Petroleum is known as 'black gold'. Just like coal, this natural resource has limited stock.

**Remember:** Natural resources should be used very carefully. We should not pollute' air and water. We should be careful in using the resources so that they last long. We should r not waste water. Water is an inexhaustible resource, but if we take out more water from the ground than what the rain can add, our underground water resource water will be wasted but used wisely.

**Water Resources of India-**

The different sources of freshwater are rivers, lakes, streams, and ponds. However, nowadays these sources of water are polluted. In the villages people use drinking water from wells, hand pumps (draw underground water to the surface), tanks, lakes, and rivers. In the cities we get water through taps. Rain is the most important source of freshwater. Most of the farmers in India depend on the monsoon for irrigating their fields. The monsoon season in India is only for a few months (June to September). The amount of rainfall varies in different parts of the country. At times the monsoon gets delayed or the rainfall may not be sufficient. This creates difficulties for the farmers.

Irrigation Facilities Farmers need water throughout the year to grow different types of crops. Therefore water is conserved by building canals, dams, reservoirs, tanks, etc. These irrigation facilities are very important for agriculture.

Let us read about them.

A tube well is a water well which has a pipe fitted to the underground source of water. An electric or diesel pump is used to pump water to the surface. In places where it is difficult to dig wells, rainwater is stored in ponds or tanks, and used for irrigation when required. This method is common in South India. The Persian wheel is a mechanical way of lifting water from open wells with the help of animals. The water is used to irrigate the crops in the fields.

Canals are small channels dug in the ground through which water from rivers or dams is carried to the fields and to Places where there is shortage of water.

A dam is made by constructing a well-like barrier across a river, to stop the flow of water, and store the water in a reservoir (an artificial lake). This reservoir is just behind the dam. Carried are dug to take the water from the reservoir to the fields. This type of irrigation is found in the Northern Plains, Central India, and the coastal areas of lndia. The Bhakra Dam is the largest dam in India and the second largest dam in Asia.

**Rainwater Harvesting-**

Rainwater harvesting is the process of collecting rainwater when there is rainfall, to use it later. Simple collection of rainwater can be done from the rooftop of houses or in the school campus. Harvested water can be used in the toilets or for watering the plants. In the rural areas, this water can be used for irrigation when there is shortage of water.

**Explanation –**

**Natural resources-** Natural Resource are resources that exist without actions of humankind. In other words-A natural resource is something that is found in nature and can be used by people. This includes all valued characteristics such as magnetic gravitational, electrical properties and forces etc. on earth it includes sunlight, atmosphere, water, land (include all mineral) along with all vegetation crops and animals life. Item made by using the natural resources are called human- made resources.

**Types of Natural Resources-**

Natural resources are of two types-inexhaustible' (or renewable) and exhaustible

(or non-renewable).

**Inexhaustible Resources (Renewable)-** Inexhaustible resources are those resources which are present in unlimited quantity and cannot be completely used by human activities are called inexhaustible resources

Air- Air is a natural resource which sustain life. Without air life is not possible on earth. Human beings, animals, and also plant need air to breathe and live.

Water- Human beings cannot survive without freshwater. Water is one of the most precious natural resources. There are 97 percent is salt and 3 percent is freshwater on this planet.

Soil- Soil is the top layer of the Earth's surface on which plants grow. Soil provides nutrients for plants and animals. Some of our basic needs like food and clothing come from soil. There are different types of soils. Various types of crops are grown in these soils.

Trees and Forest- Trees and plants provide oxygen to breathe. Trees prevent soil erosion while forest provide shelter to wildlife, wood, medicinal herbs. Trees are also used to making things.

Animals- Animals are a source of a variety of food, For example, milk, cheese, eggs, and meat. We also make clothing from animal fur, for example wool for making woollen clothes.

Solar Energy- Solar energy refers to capturing the energy from the sun and subsequently converting it into electricity. Many villagers are getting electricity with help of solar power.

**Exhaustible Resources (Non-renewable)-** Exhaustible are those resources which are present in limited quantity and can be completely used by human activities are called exhaustible resources.

Minerals- Minerals are important for industries. Minerals can be broadly divided into two types-non-metallic minerals and metallic minerals. Non-metallic minerals are sand, clay, mica,

limestone, etc. Metallic minerals are found deep inside the Earth, for example iron and manganese. They are available in limited quantity.

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Coal- Coal is a fossil fuel which is found under the Earth. It is an important source of energy. It is used as a fuel to cook, heat, and to generate electricity. It is used in factories. India has large deposits of coal, but they are getting used up.

Petroleum- Petroleum is the crude form of oil. Petroleum is known as 'black gold'. Just like coal, this natural resource has limited stock.

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Some uses of dams are given below.

1. Dams help in controlling floods in rivers.

2. Water stored in reservoirs is used for irrigation.

3. In a dam, the force of water falling from a height is used for generating electricity. The electricity that is generated from water is known as hydroelectricity or hydel power

4. Dams provide places for fish breeding.

**Rainwater Harvesting-**

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**WORKSHEET – 3**

**NOTE:Do the following exercises in your copy/ Note book**

**Exercise-1 word/meaning**

1. **Mineral**  : a solid substance
2. **Resources** : supply of material
3. **Inexhaustible**  : never ending
4. **Precious**  : great value
5. **Crude** : rough
6. **Survive** : continue to live or exist
7. **Exhaustible** : substance which can finish
8. **Herbivorous** : animal which eat only plants.

**Exercise-2 Short type Ques/Ans**.

Q1. *Why is water important to us?*

Ans. Water is very important to us because all living beings cannot survive without water.

 We need water to drink, to cook, to wash, to produce crops and many other things.

Q2. *Why must we save natural resources?*

Ans. Natural resources are gifts of nature so we should not waste it and use them carefully for better future.

Q3. *What is rain water harvesting?*

Ans. Rainwater harvesting is a method of saving rainwater in a large tank, dug in the ground.

Q4. *Name some important dams of our country.*

Ans. Some important dams of our country are-

1. Bhakra Nangal Dam 4. Damodar valley project
2. Nagarjuna Sagar Dam 5. Sardar sarovar Dam
3. Hirakud Dam

**Exercise-3 Long type Ques/Ans**.

Q1. *What is the importance of water in our life?*

Ans. The following point will show the importance of water in our life.

1. Water is use for drinking purpose.
2. Water is required to prepare food.
3. Water is useful for plants to prepare their food.
4. Water is also required to grow crops.

Q2. *Why are dams called multipurpose project?*

Ans. Dams are called multipurpose project because

1. Water stored in the reservoirs is used for irrigation through canals
2. Hydro electricity is generated from dam water.
3. Dam help in controlling floods.
4. It reservoir is an ideal place for fish breeding.

**Exercise-4 Fill in the blanks.**

1. A *natural* resource is something that is found in nature can be used by people.
2. *Windmills* use wind energy to produce electricity.
3. There is a very small amount of *freshwater* on this planet.
4. Water is an *inexhaustible* natural resource.

**Exercise-5 Tick (√) the correct answer.**

1. The top layer of the earth’s surface on which plants grow is called

(a) field (b) sand (c) soil [**√**]

1. Water is collected in tanks in

(a) North India (b) Central India (c) South India [**√** ]

1. A mechanical way of lifting water from open wells with help of animals is

(a) hand pump (b) canal (c) Persian wheel [√ ]

1. Hirakud Dam is built across river

(a) Mahanadi [√ ] (b) Narmada (c) satluj

**Exercise-6 Match the following.**

1. Solar energy (a) sun
2. Petroleum (b) fossil fuel
3. Dams (c) hydroelectricity
4. Hand pump (d) underground water

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