

## Natural Resource

### Solution 1.a:

The things such as soil, water, air, plants and animals which we obtain from nature are called natural resources.

### Solution 1.b:

There are two types of natural resources – renewable and non-renewable resources.

### Solution 1.c:

Uses of soil:

1. Soil is used for growing food grains as it contains nutritious elements and useful bacteria necessary for growing crops.
2. Soil is useful for the conservation of water. Rainwater falling on the Earth percolates into the soil and forms underground reservoirs of water which are used for drinking and agriculture by sinking wells and tube-wells.

### Solution 1.d:

Nulla bunding is the technique of storing flowing rainwater. Lateral trenches are dug at regular intervals across the sloping ground where the flowing rainwater collects and seeps into the soil. The soil flowing along with water is also collected in these trenches. Various crops can be grown through the technique of nulla bunding.

### Solution 1.e:

Biotechnology is the modern technique of producing desired plant and animal species. It involves the production of living organisms in the laboratory and their manipulation by transferring specific genes with desired characteristics from one organism to another.

### Solution 1.f:

**Differences between renewable and non-renewable resources:**

	Renewable resources	Non-renewable resources
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1.	Resources which can be produced again and again are called renewable resources.	Resources which cannot be produced by any method are called non-renewable resources.
2.	Renewable resources can be recovered.	Non-renewable resources once exhausted cannot be recovered.
3.	Examples: Plants, animals	Examples: Air, water, soil, minerals

### **Solution 2.a:**

Growth in the number of factories and vehicles is responsible for air pollution. Use of fuels such as petrol and diesel emits carbon dioxide and other poisonous substances and cause air pollution. Because of these factors, air pollution has increased.

### **Solution 2.b:**

Burning of fuels such as petrol and diesel increases the proportion of carbon dioxide in the air and causes more heat to be retained in the atmosphere. Use of public transport would reduce the number of private vehicles being used. This in turn would reduce the amount of carbon dioxide released into the air and thereby control the crisis of global warming to a considerable extent. Therefore, we should make greater use of public transport.

### **Solution 2.c:**

Diversity in plants is reducing day by day because forests are being cut down to clear land for building houses and factories, and for agricultural purposes. Moreover, there is a tendency to grow only those crops which have a greater demand in the market, e.g. rubber, medicinal plants and plants from which cosmetics are made. This has an adverse effect on both environment and diversity in plant life.

### **Solution 2.d:**

Wet garbage and biodegradable waste can be converted into excellent manure with the help of earthworms or by adding a culture of certain bacteria. All kinds of food crops can be grown using this manure. The conversion of waste matter into manure reduces the strain on the soil and the environment. It helps to profitably dispose of wet garbage. Therefore, wet garbage should be properly managed.

**Solution 3:**

Group 'A'	Group 'B'
(a) animals	2. renewable sources
(b) soil	1. non-renewable sources
(c) new species	4. biotechnology
(d) stopping soil	3. nulla bunding

**Solution 4:**

1. It takes thousands of years for a **layer** of soil to be formed. (According to data, it takes thousands of years for a one-centimetre thick layer of soil to be formed.)
2. We must use a fuel like **CNG** rather than fuels which are getting depleted.
3. **Carbon dioxide** gas causes heat to be trapped in the Earth's atmosphere.
4. 20 August is observed as **Akshaya Urja** Day.
5. **Animals** are also an integral part of a forest.
6. The trapping of heat in the Earth's atmosphere causes the danger of **global warming**.

**Solution 5:**

Right	Wrong
(b) Tree plantation	(a) Use of chemical fertilisers
(c) Use of drip irrigation	(d) Throwing away stored water
(e) Nulla bunding	(f) Letting slag from factories into rivers
(g) Using public transport	(h) Wanton hunting of animals
(i) Using alternative sources of energy	(j) Clearing forests