

10<sup>th</sup> Grade - Chapter 1 Resources and Development -Book Exercise

I. Choose the right answer from the four alternatives given below:

1. Which of the following types of resource is iron-ore?
  - a. Renewable
  - b. Biotic
  - c. Flow
  - d. Non-renewable ✓
2. Under which of the following types of resource can tidal energy be put?
  - a. Replenishable ✓
  - b. Human made
  - c. Abiotic
  - d. Non-recyclable
3. Which of the following is the main cause of land degradation in Punjab?
  - a. Intensive cultivation
  - b. Deforestation
  - c. Over-irrigation ✓
  - d. Overgrazing
4. Which of the following types of soil is found in the river deltas of the Eastern Coast?
  - a. Black soil
  - b. Laterite soil
  - c. Red soil
  - d. Alluvial soil ✓
5. In which one of the following states is terrace cultivation practiced?
  - a. Punjab
  - b. Plains of Uttar Pradesh
  - c. Haryana
  - d. Uttarkhand ✓

II. Answer the following questions briefly.

Q.1. Which soil is ideal for growing cotton?

Black soil is ideal for growing cotton and so it is also known as cotton soil.

Q.2. Name the states having black soil.

Maharashtra, Gujarat and Madhya Pradesh are three states having black soil.

Q.3. Which are biotic and abiotic resources? Give some examples.

Or

Classify resources on the basis of origin. Explain them brief along with examples.

On the basis of origin, resources can be classified into biotic and abiotic resources. Biotic resources are substances obtained from living beings. They include flora, i.e., vegetation, fauna, i.e. birds, fishes, domestic and wild life as well as human beings. Everything within the biosphere which has some utility for man, is a biotic resource.

Abiotic resources are composed of non-living substances. They include air, water, land or soil rocks and minerals in the earth's crust. They occur solid, liquid and gaseous materials on the earth and its atmosphere.

Q.4. Explain the land use pattern of India and why land under forest not increased much since 1960-61. What is the impact of decrease of land under permanent pasture?

The total geographical area of India is 3.28 million sq. km. The land use has been classified under 5 broad categories. The land use pattern of India is as follows:

1. Forests: 22.57% of the total area is under Forest cover.
2. Land not available for cultivation:
  - i. Barren and wasteland: 6.29%
  - ii. Land put to non-agricultural area: 7.92%
3. Other Uncultivated land (excluding fallow land)
  - i. Permanent pastures and grazing land declined to 3.45%
  - ii. Area under miscellaneous crops, groves 1.10%
  - iii. Culturable wasteland (left uncultivated for more than 5 years) 4.41%
4. Fallow land
  - i. Current fallows (left without cultivation for 1 or less than 1 year) 7.03%
  - ii. Other than Current fallow: 3.82%
5. Net Sown Area: 43.41%

Q.5. Why land under Forest has not increased much since 1960-61?

In India in 1960-61 the area under forest cover was 18.11%. Whereas in 2002-03, the area under forest cover increased a little bit to 22.57%. The increase was roughly 4%. As per National Forest Policy, India should have 33% of the total area under forest. Not much increase in forest area is due the following reasons:

1. Expansion of agricultural by clearing the forest area
2. Expansion of developmental works, infrastructural facilities led to clearance of forests.
3. Industrialization and Urbanization led to decline of forest area.

What is the impact of decrease of land under permanent pasture?

The decrease of land under permanent pasture has great impact. If grazing or pasture lands decrease, rearing of animals and livestock becomes difficult as there is less grazing land to feed the animals. This affects the progress in livestock rearing and brings down the production of animal husbandry. That is the milk production, egg and meat production will go down. It also decreases the alternative and additional sources of income to the farmers.

5. Suggest measures of Soil Conservation in hilly and mountainous areas.

- i. Contour Ploughing i.e. Ploughing along the contour lines of a high land can decelerate the flow of water down the slopes.
- ii. Terrace cultivation or cutting of steps around the slopes to provide land for agriculture also checks downhill flow of water and controls soil erosion. Example: As in Western and Central Himalayan Region.
- iii. Afforestation i.e. planting of trees in the hilly regions can help in soil conservation.

Q.6. How have technical and economic development led to more consumption of resources?

Technical and economic development involves more utilization and exploitation of resources for the development. According to Mahatma Gandhi, the greedy and selfish individuals and exploitative nature of modern technology are the root cause for resource depletion at global level. For example, in the past, the colonizing countries exploited the resources other countries by using their high level of technology. Technical development makes the resources accessible and usable and it helps for finding out new resources. Thus the technical development always leads to more consumption of resources.

Economic development takes place through more and proper utilization of available resources. With the economic development the capacity of accessing or consuming of resources by the people increases.

Hence, technical and economic development leads to more consumption of resources.

Q.7. Which is the most widely spread and important soil of India? State any six characteristics of this type of soil.

Alluvial soil is the most fertile, widely spread and important soil of India.

The six main characteristics of Alluvial soil are:

- i. Alluvial soil is riverine soil, transported and deposited by rivers. So they are also called transported soil.
- ii. Alluvial soil consists of various proportions of sand, silt and clay. They are coarse in upper reaches of the river valley and finest at the deltas.
- iii. Alluvial is very fertile and regions with alluvial soil are agriculturally most productive and densely populated.
- iv. They mostly contain adequate proportion of potash, phosphoric acid and lime.
- v. According to their age alluvial soil is divided into new alluvium or khadar which is fine, sandy and fertile and older alluvium or bangar which is clayey, dark in colour, contains kankar nodules and is less fertile.
- vi. Alluvial soil forms the Northern Plains. The soil has been deposited by the three great Himalayan River systems – the Indus, the Ganga, and the Brahmaputra. They are also found in the Eastern Coastal Plains, mainly in the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri rivers.

The rich soil is ideal for growth of paddy, wheat, sugarcane and other cereals and pulses.