



INDIAN SCHOOL NIZWA

Class: X	Department: Social Science	Subject: Geography
Chapter 01	Resources and development	Year :2025-26

1. What are Resources? Give two examples.

Answer: Everything available in our environment which can be used to satisfy our needs, provided, it is technologically accessible, economically feasible and culturally acceptable can be termed as 'Resource'. Coal, water, air, minerals, etc. are some examples of resources.

2. What is the role of human beings in resource development? OR. Resources are the functions of human beings' Justify the statement. OR. Do you think that resources are the free gifts of nature as is assumed by many? Justify your answer with any three suitable arguments/examples.

Answer: Resources are not the free gifts of nature.

- Human beings interact with nature through technology, and create institutions to accelerate their economic development.
- Human beings themselves are essential components of resources.
- They transform the material available in our environment into resource, and use them. For example, river is a natural resource but river become a resource when its water is used for irrigation or power production.

3. Discuss the problems which have been caused due to the over utilization of resources. OR The Indiscriminate use of resources had led to numerous problems.' Justify this statement. OR. Why is there a need to conserve resources?

Answer. Resources are vital for human survival. The indiscriminate use of resources led to the following problems:

- Depletion of resources: - Overutilization has led to the depletion of the resources for meeting the greed of few individuals. For example, over utilization of petroleum products has led to a situation where most of the countries of the world are facing energy crisis.
- Concentration of resources in few hands: - This has divided the society into haves and have not or the rich and the poor.
- Global ecological crisis: - Over-utilization of resources has led to the global ecological crisis such as global warming, depletion or ozone layer, pollution and land degradation.

4. "Development in India does not only involve the availability of resources but also the technology, quality of human resources and the historical experience of the people." Justify the statement.

Answer. 1. Resources can contribute to development only when they are accompanied by appropriate technological development and institutional changes.

2. The history of colonization reveals that rich resources in colonies were the main attractions for the foreign invaders.

3. It was primarily the higher level of technological development of the colonizing countries that helped them to exploit resources of other regions and establish their supremacy over the colonies.

5. What is leaching? Name the soils which develop due to leaching.

Answer. Leaching is the process by which nutrients in the soil are washed away due to heavy rainfall and high temperatures. As a result of excessive rainfall, lime and silica are leached out of the soil. Laterite soil develops due to leaching.

6. How over irrigation and mining leads to land degradation?

Answer. i) Over irrigation is responsible for land degradation due to water logging which leads to increase in salinity and alkalinity in the soil.

ii) The minerals procession like grinding of limestone for cement industry and calcite and soapstone for ceramic industry generate huge quantity of dust in the atmosphere. It retards the process of infiltration of water into the soil after it settles down on the land.

7. How is land a natural resource of utmost importance? Explain with four facts.

- Answer.** i) . All economic activities are performed on land.
ii). It supports natural vegetation and wildlife.
iii). Most of the minerals are formed in land.
iv). It is used for transport and communication system.

8. Mention any five characteristics of black soil.

- Answer.** i) The black soils are made of extremely fine materials i.e., clayey materials.
ii) These soils are rich in soil nutrients such as calcium carbonate, magnesium carbonate, potash and lime.
iii) These soils are generally poor in phosphoric content
iv) The soil is well known for its capacity to hold moisture.
v) They develop deep cracks during hot weather, which helps in the proper aeration of the soil.
vi) These soils are sticky when wet and difficult to work on unless tilled immediately after the first shower.
vii) These soils are found in Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chhattisgarh.

9. Write important features of laterite soil.

- Answer.** i) The laterite soil develops in areas with high temperature and heavy rainfall.
ii) This is the result of intense leaching due to heavy rain.
iii) Humus content is low due to micro-organisms particularly the decomposers, like bacteria, get destroyed due to high temperature.
iv) Laterite soils are suitable for cultivation with adequate doses of manures and fertilizers.
v) These soils are found in Karnataka, Kerala, Tamil Nadu, hilly areas of Orissa and Assam. This soil is useful for growing coffee and cashew nut.

10. Explain the process of soil erosion.

- Answer.** i) The denudation of the soil cover and subsequent washing down is described as soil erosion.
ii) The processes of soil formation and erosion go on simultaneously and generally there is a balance between the two.
iii) Sometimes, this balance is disturbed due to human activities like deforestation, over-grazing, construction and mining etc., while natural forces like wind, glacier and water lead to soil erosion.
iv) The running water cuts through the clayey soils and makes deep channels as **gullies**.
v) The land becomes unfit for cultivation and is known as bad land. In the Chambal basin such lands are called **Ravines**.
vi) Sometimes water flows as a sheet over large areas down a slope. In such cases the top soil is washed away. This is known as **sheet erosion**.
vii) Wind blows loose soil off flat or sloping land known as wind erosion.
viii) Soil erosion is also caused due to defective methods of farming.
ix) Ploughing in a wrong way i.e. up and down the slope form channels for the quick flow of water leading to soil erosion.

11. What major steps can be taken for soil conservation.

- Ans. i) Afforestation:** Afforestation and proper management of grazing can help to some extent as the grass binds the soil.
ii) Contour Ploughing: along the contour lines can decelerate the flow of water down the slopes. This is called contour ploughing.
iii) Terrace farming: Steps can be cut out on the slopes making terraces. Terrace cultivation restricts erosion. Western and central Himalayas have well developed terrace farming.
iv) Strip cropping: Large fields can be divided into strips. Strips of grass are left to grow between the crops. This breaks up the force of the wind. This method is known as strip cropping.
v) Shelter belts: Planting lines of trees to create shelter also helps in soil conservation. Rows of such

trees are called shelter belts. These shelter belts have contributed significantly to the stabilization of sand dunes and in stabilizing the desert in western India.

12. Discuss some of the ways to solve the problem of land degradation.

Ans: There are many ways to solve the problems of land degradation.

- i) Afforestation and proper management of grazing can help to some extent as the grass binds the soil.
- ii) Planting of shelter belts of plants, control on over grazing,
- iii) Stabilization of sand dunes by growing thorny bushes are suitable in arid and semi-arid regions. They help in binding the soil with the roots and also reduce the speed of the wind.
- iv) Proper management of waste lands, control of mining activities.
- v) Proper discharge and disposal of industrial effluents and wastes after treatment can reduce land and water degradation in industrial and suburban areas.

13. Explain the human activities which are mainly responsible for land degradation in India.

Ans. Continuous use of land over a prolonged period of time without taking necessary steps to conserve and manage it, has resulted in land degradation.

Human activities responsible for land degradation in India are as follows:

- (i) In states like Jharkhand, Chhattisgarh, Madhya Pradesh and Orissa deforestation due to mining has caused severe land degradation. Mining sites are dug, drilled or quarried and abandoned after excavation work is over, leaving the land over-burdened and in a highly degraded state.
- (ii) Mineral processing like grinding of limestone for cement industry and calcite and soapstone for ceramic industry generate huge quantity of mineral dust in the atmosphere which ultimately settles down on the land. It retards the process of infiltration of water into the soil, thus, degrading the land.
- (iii) In states like Gujarat, Rajasthan, Madhya Pradesh and Maharashtra overgrazing is one of the main reasons for land degradation.
- (iv) In Punjab, Haryana and Western Uttar Pradesh over-irrigation is responsible for land degradation. It leads to water logging which in turn increases salinity and alkalinity in the soil and reduces its fertility.
- (v) Discharge of industrial effluents and wastes cause pollution and land degradation in industrial regions.

14. How has technical and economic development led to more consumption of resources?

Ans: Technical and economic development led to more consumption of resources on account of various factors:

- i) Human beings interact with nature through technology and create institutions to expand their economic development, as a result they often consume resources more in quantity.
- ii) Technological development also leads to economic development. It again results into more consumption of resources.
- iii) In colonial times, imperial powers used their technological and economic superiority to establish control over other countries thus utilizing more resources.
- iv) Technical progress also results in inefficient machinery, increased production, and greater consumption of resources.

Hence, greater the technical and economic development, the greater the consumption of resources.

15. Which is the most widely spread and important soil of India? State the characteristics of this type of soil.

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

The main characteristics of this soil type are: -

- (i) Alluvial soil is riverine soil, transported and deposited by rivers. So, they are also called transported soil. 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.
- (ii) Alluvial soil consists of various proportions of sand, silt and clay. As we move inland towards the

river valleys, soil particles appear bigger in size. In the upper reaches of the river valley, the soils are coarse. Such soils are more common in piedmont plains such as Duars, Chos and Terai.

iii) According to their age alluvial soil can be classified as old alluvial (Bangar) and new alluvial (Khadar). The Bangar soil has higher concentration of Kanker nodules than the Khadar. Khadar has more fine particles and is more fertile than the Bangar.

(iv) Alluvial is very fertile and regions with alluvial soil are agriculturally most productive and densely populated.

(v) They mostly contain adequate proportion of potash, phosphoric acid and lime.

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

vii) Soils in the drier areas are more alkaline and can be productive after proper treatment and irrigation.

16. Write the classification of resources on four different bases.

Answer: Resources can be classified in the following four ways:

(a) On the basis of Origin: (i) Biotic (ii) Abiotic

(b) On the basis of exhaustibility: (i) Renewable (ii) Non-renewable

(c) On the basis of ownership: (i) Individual (Personal) (ii) Community (iii) National (iv) International

(d) On the basis of status and development: (i) Potential (ii) Developed (iii) Reserve (iv) Stock

17. What is Agenda 21? List its two principles.

Ans : Agenda 21 was adopted at first International Earth Summit held in 1992 at Rio de Janeiro Brazil.

The two principles are as follows:

a. To combat environmental damage, poverty, disease through global cooperation on common interests, mutual needs and shared responsibilities.

b. Every local government should draw its own local Agenda 21.

18. In India, some regions are rich in certain types of resources but deficient in some other resources". Do you agree with the statement? Support your answer with any three examples.

Ans : Yes, there are regions which are rich in certain types of resources but are deficient in some other resources.

a. Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits.

b. Arunachal Pradesh has abundance of water resources but lacks in infrastructural development.

c. Rajasthan is endowed with solar and wind energy but lacks in water resources.

d. Ladakh has rich cultural heritage but lacks in water resources and infrastructure.

19. Explain the Gandhi philosophy of conservation of resources.

- According to Gandhiji, "There is enough for everybody's need and not for anybody's greed.
- Greedy and selfish individuals and the exploitative nature of modern technology are the root cause for resource depletion.
- He was against mass production and wanted to replace it with production by masses.

20. Distinguish between Khaddar and Bangar.

Ans. According to their age alluvial soils can be classified as old alluvial (Bangar) and new alluvial (Khadar). The Bangar soil has higher concentration of Kanker nodules than the Khadar. It has more fine particles and is more fertile than the Bangar.

21. Describe any five distinct characteristics of 'Arid soils'.

- Ans :
- a. Arid soils range from red to brown in colour.
 - b. Sandy in texture and saline in nature.
 - c. Evaporation is faster, soil lacks humus and moisture.
 - d. Soil occupied by Kankar.
 - e. Kankar restricts the infiltration of water.