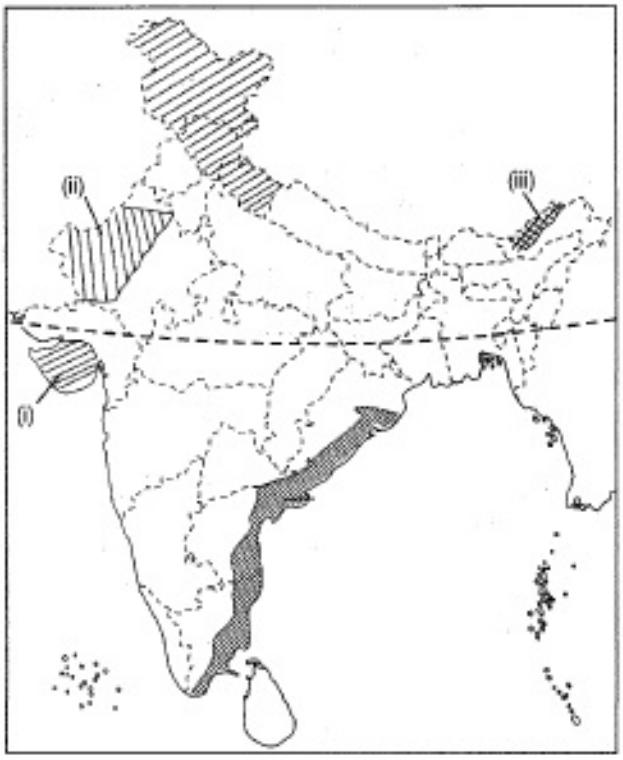
CBSE Test Paper - 02

Chapter - 09 Resources and Development

1. Choose the method that restricts soil erosion in hilly areas. **(1)**
   a. contour ploughing
   b. terrace farming.
   c. strip cropping
   d. shelter belt
2. The state of is very well endowed with solar and wind energy but lacks in water resources. **(1)**
   a. Gujarat
   b. Chhattisgarh
   c. Haryana
   d. Rajasthan
3. Which one of the following resources can be acquired by the Nation? **(1)**
   a. National resources
   b. Potential resources
   c. Public resources
   d. International resources
4. Which soil type is the result of intense leaching due to heavy rainfall? **(1)**
   a. red soil
   b. alluvial soil
   c. sandy soil
   d. Laterite soil
5. Who wrote the book 'Small is Beautiful'? **(1)**
   a. Gandhiji
   b. Schumacher
   c. Hitler
   d. Jawaharlal Nehru
6. What is responsible for sheet erosion? **(1)**
7. What condition makes sustainable development different from development? **(1)**
8. Do you think, the desired objective of National Forest Policy, 1952 is achieved

successfully? **(1)**

9. In which part of India excessive irrigation is a major cause of land degradation? **(1)**
10. Distinguish between stock and potential resource. Give one example of each. **(3)**
11. Explain the interdependent relationship between nature, technology and institutions. **(3)**
12. What type of soil is found in the river deltas of the eastern coast? Give four main features of this type of soil. **(3)**
13. On the political outline map of India given below, identify the soil types in (i), (ii), (iii). **(3)**



14. Explain the land use pattern in India. **(5)**
15. Describe alluvial soil under the following heads **(5)**
    i. Formation
    ii. Distribution
    iii. Classification
    iv. Nutrients

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Answers

1. b. terrace farming.
   Explanation: Terraces reduce both the amount and velocity of water moving across the soil surface, which greatly reduces soil erosion. Terracing thus permits more intensive cropping than would otherwise be possible. Western and central Himalayas have well developed terrace farming.
2. d. Rajasthan
   Explanation: The state of Rajasthan is very well endowed with solar and wind energy but lacks in water resources. Rajasthan faces one the greatest scarcity of water resources in the country. It has 14% of India's cultivable area, 6% of population and about 11% of country's livestock but it has only 1% of surface water and 2% of ground water. Thus, Rajasthan a state with about 10% of land area has only around 1% of country's water resources.
3. a. National resources
   Explanation: National Resources: Technically, all the resources belong to the nation. The country has legal powers to acquire even private property for public good. Urban Development Authorities get empowered by the government to acquire land. All the minerals,water resources, forests, wildlife, land within the political boundaries and oceanic area upto 12 nautical miles (22.2 km) from the coast termed as territorial water and resources therein belong to the nation.
4. d. Laterite soil
   Explanation: The laterite soil is formed under conditions of high temperature and heavy rainfall with alternate wet and dry periods, which leads to leaching of soil, leaving only oxides of iron and aluminum. It lacks fertility due to a lower base-exchanging capacity and a lower content of nitrogen, phosphorus, and potassium.
5. b. Schumacher

Explanation: It is a collection of essays by German born British economist E. F. Schumacher. The phrase "Small Is Beautiful" came from a phrase by his teacher Leopold Kohr. It is often used to champion small, appropriate technologies that are believed to empower people more, in contrast with phrases such as "bigger is better".

6. Water is responsible for sheet erosion. Water flows as a sheet over larger areas down a slope, leads to erosion of top soil.
7. The condition that development should take place in such a way that there is no damage to the environment and sustains natural resources and the environment for future generations.
8. No, because National Forest Policy set a target for 33 percent of desired forest cover in India, but it is only about 23 percent in India now. Mining, grazing, development projects have contributed to the loss of forests.
9. The North-Western part of India including Punjab, Haryana and Western part of Uttar Pradesh are suffering from land degradation which is due to excess irrigation. Over irrigation is responsible for land degradation due to waterlogging leading to increase in salinity and alkalinity in the soil.
10. **Stock :**
    i. Meaning: Materials in the environment which have the potential to satisfy human needs but human beings do not have the appropriate technology to access these.
    ii. They are found in the environment.
    iii. **Example:** Water is a compound of two inflammable gases—hydrogen and oxygen, which can be used as a rich source of energy. But we do not have the required technical knowledge on how to use them for this purpose.

    Potential resources:

    i. **Meaning:** Resources which are found in a region, but have not been utilised.
    ii. They are found in a region.
    iii. **Example:** Rajasthan and Gujarat have enormous potential for the development of wind and solar energy, but so far these have not been developed properly for various reasons.
11. The process of transformation of things available in our environment involves an interdependent relationship between nature, technology and institutions. Human beings interact with nature through technology and create institutions to accelerate

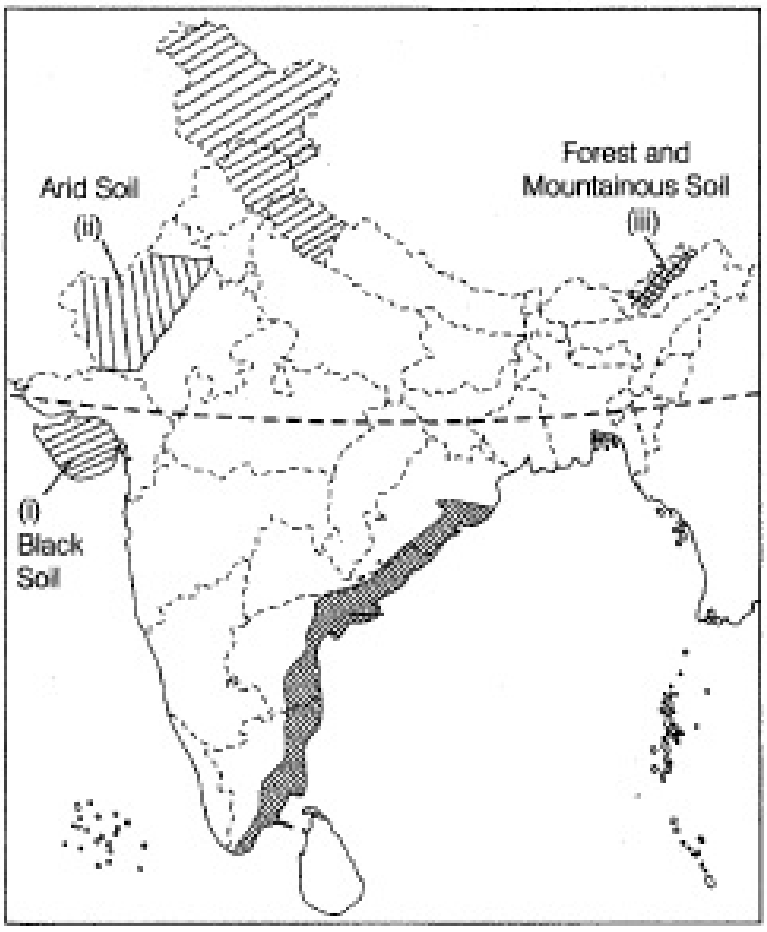
their economic development. Resources are the functions of human activities.

12. Alluvial soil is found in the eastern coastal plains particularly in the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri.

    Main features of alluvial soil:

    i. It is highly fertile.
    ii. It consists of various proportions of sand, silt and day.
    iii. It is rich in potash, phosphoric acid and lime but deficient in organic matter.
    iv. The soil is porous because of its loamy (equal proportion of sand and clay) nature. Porosity and texture provide good drainage and other conditions favorable for agriculture.

13. i. Black soil covering Gujarat region
    ii. Arid soil covering Rajasthan
    iii. Forest and Mountainous soil covering Arunachal Pradesh



14. The land use pattern in divided in the following ways:

    i. The net sown area in India has decreased from 45.26 per cent to 43.41 per cent. This means that more and more agricultural land is being shifted to other

activities.

ii. The pattern of the net sown area varies gently from one state to another. In Punjab and Haryana the net sown area is 80 per cent of the total area but in Arunachal Pradesh, Mizoram, Manipur and Andaman and Nicobar Islands, it is less than 10 per cent of the total area.

iii. The area under forests has been increased from 18.11 per cent in 1960-61 to 22.57 per cent in 2000-2003 and to 23 per cent in 2005-06, yet it is far below than the scientific norms.

iv. The land under permanent pastures is very low, i.e., only 3.45 per cent.

v. Area under fallow land has also decreased which shows, that subsistence agriculture is being replaced by commercial agriculture.

15. Alluvial soil can be described as follows:

i. **Formation:** Alluvial soil is made-up of silt, sand, and clay. It is deposited by three important Himalayan river systems the Indus, the Ganga, and the Brahmaputra. It is bigger and coarser in the upper reaches of the river and becomes finer as the river flows down.

ii. **Distribution/Area:** This soil is prevalent in the river valleys of the Northern Plains (Indus, Ganga, Brahmaputra), strips in Gujarat and Rajasthan, as well as in the Eastern coastal plains in the deltas of rivers of the Peninsular plateau (Mahanadi, Krishna, Kaveri).

iii. **Classification:** According to their age, alluvial soils can be classified as (Bangar) old alluvial and Khadar (new alluvial). The Bhangar is the older alluvium along the river beds forming terraces higher than the flood plain (about 30 metres above the flood level). It is of a more clayey composition and is generally dark colored. The Khadar is composed of newer alluvium and forms the flood plains along the river banks.

iv. **Nutrients/Minerals:** This soil is rich in nutrients like **calcium**, sodium, potassium, silicon, phosphorus (typically phosphates), nitrogen (as nitrates or ammonium salts) which is suitable for growing paddy, wheat, sugarcane, and other cereal and pulse crops.