Resources and Development

LONG ANSWER TYPE QUESTIONS (4 MARKS)

PREVIOUS YEARS' QUESTIONS

1. What is resource planning ? Why is resource planning essential ? Explain with three reasons. [Delhi 2008]

Ans. Resource Planning. Resource planning refers to the strategy for planned and judicious utilisation of resources. Resource planning is essential for sustainable existence of all forms of life. Resource planning is essential for India as there is enormous diversity in the availability of resources. For example the state of Rajasthan has vast potential for the development of solar and wind energy but is deficient in water resources. The cold desert ofLadakh has rich cultural heritage but is deficient in water and some strategic minerals.

The state of Arunachal Pradesh has abundance of water resources but lacks infrastructure which shows mere availability of resources in the absence of technology and institutions hinders development.

This shows that the resource planning is needed at the national, regional, state and local levels for balanced development of a country.

2. Classify resources on the basis of the status of development into four groups. Explain the main features of each group. [AI 2008]

Ans. On the basis of the status of development, resources are classified into four groups, namely potential, developed, stock and reserve.

(i) **Potential Resources**: Potential resources are those which are found in a region, but have not been utilised. For example, solar energy and wind energy, available in Rajasthan and Gujarat, have not been developed properly.

(ii) **Developed Resources** : Developed resources are those which are estimated in terms of their quantity and quality for utilisation, *e.g.*, water, soil, forests.

(iii) **Stock Resource*** : Materials in the environment which have the potential to satisfy human needs but are not technologically accessible to human beings, *e.g.*, use of water as a rich source of energy.

(iv) **Reserve Resource** : Reserve is a part of stock which can be put to use in the near future with the help of existing technology, *e.g.*, water in dams, forests.

3. Which is the most widely spread and important soil of India ? State any six characteristics of this type of soil. [Foreign 2008]

- Ans. The most widely spreadand important soil of India is alluvial soil.
 - Six characteristics of this soil are :
 - (i)Alluvial soil is formed by the deposition of materials brought down by the Himalayan rivers.
 - (ii) Highly fertile.
 - (iii) Consists of various proportions of sand, silt and clay.
 - (iv) It is rich in potash, phosphoric acid and lime but deficient in organic matter.
 - (v) Soils in dry regions are more alkaline and can be made productive after proper treatment and irrigation.
 - (vi) They are of two types Khader and Bangar. Khader soils is new alluvial soil which is fine and fertile, while Bangar soils is old alluvial soil which is coarse and less fertile.
 - (vii) It supports a large variety of crops like paddy, sugar cane, wheat and pulses. (Any six)

4. How does land degradation takes place through human activities in India. Explain any three measures to control their degradation. [Foreign 2007]

Ans. Land degradation is caused due to

- (i) Soil erosion in hills, arid and semi arid areas.
- (ii) Human activities such as over grazing by animals, shifting cultivation.
- (III) Deforestation.
- (iv) Careless management of forests.
- (v) Mining and industry are the two important activities which cause land degradation.

Measures of controlling land degradation:

- (i) Check soil erosion by construction of terraces for farming and plugging of gullies by construction of check dams.
- (ii) Preparation of shelter belt of plants.
- (iii) Control of overgrazing.
- (iv) Stabilisation of sand dunes by growing thorny bushes.
- (v) Moisture conservationand weed control in agricultural lands.
- (vi) Regularization of grazing.
- (vii) Proper management of wastelands.
- (viii) Control of mining.

5. What is land degradation ? Describe any five measures of controlling land degradation.

[Delhi 2006: Foreign 06, AI 05]

Ans. Land degradation refers to the processes both natural andman-made which makes the land unfit for use. Refer to Ans. 4 (4 marks).

6. Explain any five causes of land degradation.

[Foreign 2006, 04]

Ans. Refer to Ans. 4 (4 marks).

7. What is resource planning ? What is the need for planning of resources ? Describe the three stages involved in resource planning. [AI 2005]

Ans. Resource planning is a technique of plannedutilisation of resources. As resources are limited and unevenly distributed over the country, their planning is very essential. The three stages of resource planning are :
(i) Preparation of inventory of resources.

(ii) Evaluation in terms of economy, need and available technology.

(iii) Planning for exploitation of resources which involves action oriented planning involvinguse and reuse of resources.

8. How are alluvial soils formed ? How is Bangar alluvium different from Khadar.

[Foreign 2001]

Ans. Alluvial soils are formed by the deposition of materials brought down by the rivers. This process of deposition continues for millions of years leading to accumulation of soil into thick layers.

These have been deposited by three important Himalayan rivers namely the Indus, Ganga and the Brahmaputra.

Difference :

Khadar Soils	Banger Soils
(i) These are the new alluvium deposited	(i) These are the old alluvium deposited in the
recently.	recent past.
(ii) These are fine and fertile	(ii) These are coarse and less fertile. (presence of
	'Kankar' nodules)
(iii) These are found near the river in the flood	(iii) These are found away from the river especially
plains and detals.	along the foothills,
(iv) These are sandy and light in colour.	(iv) These are clayey and dark in colour.

NCERT Questions

- 9. Explain land use pattern in India and why has the land under forest not increased much since 1960-61 ?
- Ans. The present land use patternin India for he year 2000-03 is as follows :

Land use categories 2000-03.

- 4(i) Forests 22.5%
- (ii) Area undernon agricultural use 7.92%
- (iii) Barren and wasteland 6.29%
- (iv) Permanent pastures and grazing lands 3.45%
- (v) Area undermiscellaneous tree crops 1.1%
- (vi) Culturable waste 4.4%
- (vii) Fallow other than currentfallow 3.82%
- (viii) Current fallow 7.03%
- (ix) Net sown Area 43.4%.

Forest area has increased marginally from 18% in 1960-61 to 22% in 2000-03. This is mainly due to increasing pressure of population on land. Land is a fixed asset. The ever increasing population has resulted in increased demand for land for various purposes like agriculture and other non agricultural purposes. Henceit hasincreased marginally by 4% only.

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

Ans. The consumption of resources depends on the needs and aspirations of the people which changes with the development of technology and economic development of the country. In developed nations the needs of the people are high and they consume more resources, while in developing nations the needs of the people are less resulting in low consumption of resources. For example, In USA mineral consumption is five times more than the world average. With the economic development, the demand for resources increases faster than their population growth. The wealth combined with rapid economic development enables individuals to consume more resources. The development of technology contributed to increased production of quality goods and provide better services to the people. Hence greater the technical and economic development, greater the consumption of resources.

Additional Questions

11. Explain the factors responsible for resources development in India.

Ans. India's vast natural resources have enormous potential for economic development. After Independence India's concerted efforts for planned development of resources through Five Years Plans have led to overall development of the economy. For example, in the field of agriculture the green revolution techniques have led to increased agricultural productivity. Development of technology has also contributed to production of quality goods in industrial sector also. To meet the growing needs of the population and higher quality of life, resources are exploited and consumed on a larger scale. India has not only become self sufficient but is also able to compete with

other industrialised countries of the world. Thus resource development in India not only depends on the availability of resources but also on their development, the latest technology and organisations for resource development.

12. Explain briefly any four types of soils found in India.

- Ans. Different types of soils found in India are :
- (i) Alluvial Soil. This is the most widespread soil in India. This soil is formed by the deposition of materials by the rivers namely the Indus, the Ganga, the Brahmaputra. It is mainly found in northern plains and eastern coastal plains. It is the most fertile soil. Due to high fertility they are intensively cultivated and are densely populated.
- (ii) Black Soil. This soil is black in colour and cotton grows best in this soil. This-soil is formed by the weathering up of igneous rocks. It is mainly confined to the north western part of peninsular plateau, deccan lava plateau which includes the states of Maharashtra, Saurashtra, Malwa, MadhyaPradesh and Chhattisgarh.
- (iii) Red and Yellow Soil. Red soil develops on crystalline igneous rocks in areas of low rainfall in the Eastern and South eastern parts of the Deccan plateau. This soil is rich in iron compounds and is reddish in colour due to diffusion while it is yellowish in colour when it occurs in hydrated form.
- (iv) LateriteSoil. These soils are formed by intense leaching in tropical regionswhere the both temperature and rainfall is high. This soil is devoid of nutrients and has low humus content and is not suitable for crop cultivation. It is mainly found in Karnataka, Kerala, Tamil Nadu, Madhya Pradesh and hilly areas of Orissa and Assam. Through soil conservation techniques they are useful for growing tea and coffee.
- (v) Arid Soils. These soils are sandy and saline in nature. They lack humus and moisture. They can be suitable for crop cultivation where irrigation is available. This soil is mainly found in Rajasthan. (Any four)