



CLASS –X

SUBJECT: GEOGRAPHY

CHAPTER -1 RESOURCES AND DEVELOPMENT

**Resource:** 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'.

### TYPES OF RESOURCES

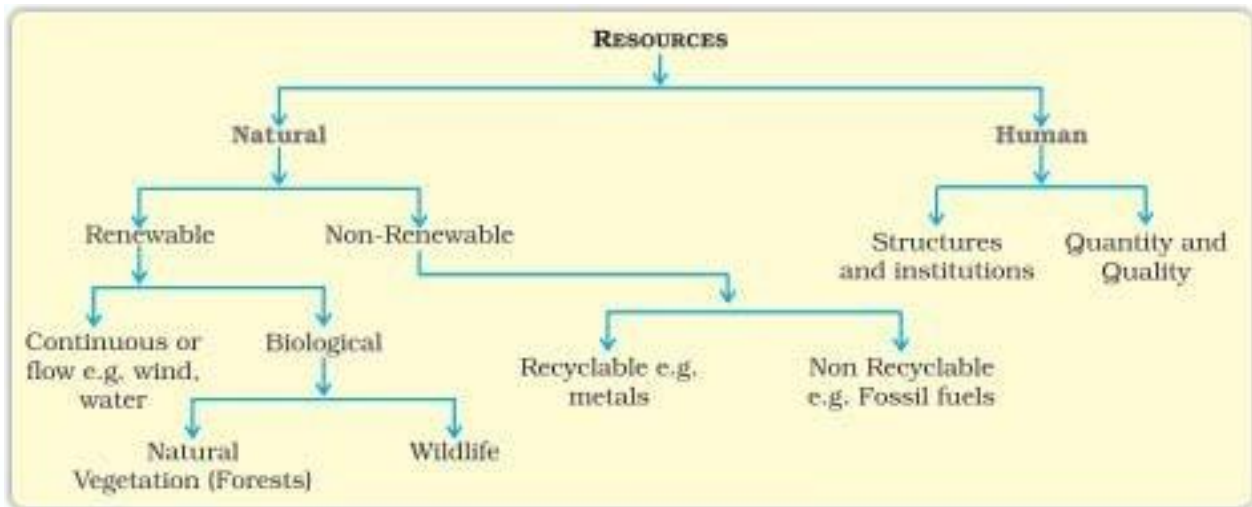
These resources can be classified in the following ways –

- (a) On the basis of origin – biotic and abiotic
  - (b) On the basis of exhaustibility – renewable and non-renewable
  - (c) On the basis of ownership – individual, community, national and international
  - (d) On the basis of status of development – potential, developed stock and reserves.
- Biotic Resources obtained from biosphere and have life such as human beings, flora and fauna, fisheries, livestock etc.
  - All those things which are composed of non-living things are called abiotic resources. For example, rocks and metals.
  - Renewable Resources can be renewed or reproduced by physical, chemical or mechanical processes For example, solar and wind energy, water, forests and wildlife, etc.
  - Non-Renewable Resources occur over a very long geological time. Minerals and fossil fuels are examples of such resources. These resources take millions of years in their formation.
  - Individual Resources are owned privately by individuals. Example: Many farmers own land which is allotted to them by government against the payment of revenue.
  - Community Owned Resources are resources which are accessible to all the members of the community. Example: Village commons (grazing grounds, burial grounds, village ponds, etc.) public parks, picnic spots, playgrounds in urban areas etc.
  - National Resources Technically, all the resources belong to the nation. The country has legal powers to acquire even private property for public good.
  - International Resources are international institutions which regulate some resources.
  - The oceanic resources beyond 200 km of the Exclusive Economic Zone belong to open ocean and no individual country can utilise these without the concurrence of international institutions.
  - Potential Resources: Resources which are found in a region, but have not been utilised. For example, the western parts of India particularly Rajasthan and Gujarat have enormous potential for the development of wind and solar energy, but so far these have not been developed properly.
  - Developed Resources Resources which are surveyed and their quality and quantity have been determined for utilisation.

### DEVELOPMENT OF RESOURCES

Resources are vital for human survival as well as for maintaining the quality of life. It was believed that resources are free gifts of nature. Human beings used them indiscriminately and this has led to the following major problems:

- Depletion of resources for satisfying the greed of few individuals.
- Accumulation of resources in few hands, which, in turn, divided the society into two segments i.e. haves and have nots or rich and poor.
- Indiscriminate exploitation of resources has led to global ecological crises such as, global warming, ozone layer depletion, environmental pollution and land degradation.



## RESOURCE PLANNING IN INDIA

- Identification and inventory of resources across the regions of the country. This involves surveying, mapping and qualitative and quantitative estimation and measurement of the resources.
- Evolving a planning structure endowed with appropriate technology, skill and institutional set up for implementing resource development plans.
- Matching the resource development plans with overall national development plans.

## CONSERVATION OF RESOURCES

Resource conservation at various levels is important. Gandhiji was very apt in voicing his concern about resource conservation in these words: “There is enough for everybody’s need and not for anybody’s greed.”

## LAND UTILISATION

Land resources are used for the following purposes:

- Forests
- Land not available for cultivation

(a) Barren and waste land

(b) Land put to non-agricultural uses, e.g. buildings, roads, factories, etc.

Other uncultivated land (excluding fallow land)

(a) Permanent pastures and grazing land,

(b) Land under miscellaneous tree crops groves (not included in net sown area),

(c) Cultivable waste land (left uncultivated for more than 5 agricultural years).

- Fallow lands

(a) Current fallow - (left without cultivation for one or less than one agricultural year),

(b) Other than current fallow-(left uncultivated for the past 1 to 5 agricultural years).

- Net sown area

Area sown more than once in an agricultural year plus net sown area is known as gross cropped area.

#### **LAND USE PATTERN IN INDIA**

- Total geographical area of India is 3.28 million sq. km.
- Land use data however is available only for 93% of the total area because the land use reporting for most of the North-East States except Assam has not been done fully.
- Some area of Jammu and Kashmir occupied by Pakistan and China have also not been surveyed.
- The land under permanent pasture has also decreased.
- Fallow land - left without cultivation for one or less than one agricultural year.
- Net sown area total -total area sown in an agricultural year.
- More net sown area in Punjab and Haryana.
- Less net sown area in Arunachal Pradesh, Mizoram, Manipur and Andaman Nicobar Islands.
- National Forest Policy in India in 1952.
- Waste land includes rocky, Arid and desert area and land put to other non agricultural uses includes settlements, roads, railways, industry etc.
- Continuous use of land over a long period of time without taking appropriate measures to conserve and manage it.

#### **LAND DEGRADATION AND CONSERVATION MEASURES**

- At present, there are about 130 million hectares of degraded land in India.
- Some human activities such as deforestation, over grazing, mining and quarrying too have contributed significantly in land degradation.
- In states like Jharkhand, Chhattisgarh, Madhya Pradesh and Orissa deforestation due to mining have caused severe land degradation.
- In states like Gujarat, Rajasthan, Madhya Pradesh and Maharashtra overgrazing is one of the main reasons for land degradation.
- In the states of Punjab, Haryana, western Uttar Pradesh, overirrigation is responsible for land degradation.









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## CHAPTER -1 RESOURCES AND DEVELOPMENT

### Exercises questions and answers:

Question 1: Multiple choice questions.

- (i) Which one of the following type of resource is iron ore?  
(a) Renewable (b) Biotic (c) Flow (d) Non-renewable
- (ii) Under which of the following type of resource can tidal energy be put?  
(a) Replenishable (b) Human-made (c) Abiotic (d) Non-recyclable
- (iii) Which one of the following is the main cause of land degradation in Punjab?  
(a) Intensive cultivation (b) Deforestation (c) Over irrigation (d) Overgrazing
- (iv) In which one of the following states is terrace cultivation practised?  
(a) Punjab (b) Plains of Uttar Pradesh (c) Haryana (d) Uttarakhand
- (v) In which of the following states is black soil found?  
(a) Jammu and Kashmir (b) Gujarat (c) Rajasthan (d) Jharkhand

Answer: (i) (d) non-renewable

Explanation: Once they have been used up, there will be no more. Most non-renewable resources are minerals, which are mined, for example, gold, iron ore, titanium. Coal and oil are known as fossil fuels and are also non-renewable.

(ii) (a) Replenishable

Explanation: Tidal energy is a replenishable resource since tides keep coming over and over again due to the moon's force.

(iii) (c) over irrigation

Explanation: In Punjab, Haryana, western Uttar Pradesh, over irrigation is responsible for land degradation due to waterlogging leading to increase in salinity and alkalinity in the soil.

(iv) (d) Uttarakhand

Explanation: Terrace farming is done on hill slopes and Uttarakhand is the region having hill slopes and here terrace farming is practiced.

(v) (b) Gujarat

Explanation: It is mostly found in areas such as Gujarat, Madhya Pradesh and Maharashtra. It is formed by weathering of Deccan basalt from last 60 million years and paleo organic carbon resource.

Question 2. Answer the following questions in about 30 words.

- i. Name three states having black soil and the crop which is mainly grown in it.
- ii. What type of soil is found in the river deltas of the eastern coast? Give three main features of this type of soil.
- iii. What steps can be taken to control soil erosion in the hilly areas?
- iv. What are the biotic and abiotic resources? Give some examples.

Answer:

- i. Maharashtra, Gujrat, Madhya Pradesh and Chhattisgarh are states having black soil. Cotton is mainly grown in black soil. Other crops which can be grown in black soil are rice, sugarcane, wheat, Jawar, linseed etc.
- ii. Alluvial Soil is found in the river deltas of the eastern coast.  
Three features of alluvial soil:
  - Alluvial soils are very fertile.
  - It contains varied amounts of sand, silt and clay.
  - These soils contain ample amount of phosphoric acid, potash and lime so they are ideal for growing sugarcane, wheat and paddy.
  - The regions of alluvial soils are intensively cultivated and densely populated.
- iii. In hilly areas, soil erosion can be controlled by contour which refers ploughing across contour-lines, making use of terrace farming techniques and using strips of grasses to check soil erosion by wind and water.
- iv. Biotic Resources: The resources which are obtained from the biosphere, from forest and the materials derived from them and have life are called Biotic Resources. For example, animals and plants including human beings.  
Abiotic Resources: The resources which are composed of non-living things are called Abiotic Resources. For example rocks, water, minerals, metals, wind, solar energy etc.

Question 3. Answer the following questions in about 120 words.

- i. Explain land use pattern in India and why has the land under forest not increased much since 1960-61?
- ii. How has technical and economic development led to more consumption of resources?

Answer: (i) The use of land is determined by both physical factors such as topography, climate, soil types as well as human factors such as population density, technological capability and culture and traditions. Land resources in India are primarily divided into agricultural land, forest land, land meant for pasture and grazing, and waste land.

Wasteland includes rocky, arid and desert areas and land used for other non-agricultural purposes such as housing, roads and industry. According to the recent data, about 54% of the total land area is cultivable or fallow, 22.5% is covered by forests and 3.45% is used for grazing. The rest is wasteland, with traces of miscellaneous cultivation.

The land under forest has not increased since 1960-61 because in the post-independence era demand for more land to expand agriculture, mainly after Green Revolution, developmental works and infrastructural facilities, led to clearance of forests areas. Industrialisation and urbanisation also decreased the forest area. Thus, land under forest has increased by only about 4% since 1960-61.

(ii) Technical and economic development has led to more consumption of resources on account of various factors such as:

- Technological development provides sophisticated equipment. As a result, production increases ultimately leading to consumption of more resources. Technological advancement leads to the conversion of more natural resources into useful resources thus the consumption also increases.
- Technological development also leads to economic development. When the economic condition of a country rises, the needs of people also rise. It again results in more consumption of resources.
- Economic development provides favourable environment for the development of latest technologies. It helps to make or convert various materials found around us into resources. Finally, it results in the consumption of newly available resources too.



## **CLASS –X**

### **SUBJECT: GEOGRAPHY**

#### **CHAPTER -2 AGRICULTURE**

Agriculture is a primary activity which produces most of the food that we consume besides food grain it also produces raw material for various industries.

Some agriculture product like tea, coffee, spice, etc...

#### **Types of farming:**

Cultivation method has changed significantly depending upon the characteristics of physical environmental, technological know – how and socio – culture practices. Farming varies from subsistence to commercial type. At present in different parts of India.

#### **Primitive Subsistence Farming:**

This type of farming is still practiced in few pockets of India

1. The help of primitive tools like hoe, dao and digging sticks, and family /community labour.
2. This type of farming depends upon monsoon, natural fertility of the soil and suitability of other environmental conditions to the crops grown.
3. It is 'salsh and burn' agriculture.
4. The soil fertility decreases.
5. The farmers shift and clear a fresh patch of land for cultivation.

#### **Intensive Subsistence Farming:**

1. This type of farming is practiced in areas of high population pressure on land .
2. It is labour intensive farming.
3. The biological inputs and irrigation are used for obtaining higher production. There is enormous pressure on agriculture land.

#### **Commercial Farming:**

1. This type of farming is the use of higher doses of modern inputs.
2. The degree of commercialization of agriculture varies from one region to another.
3. A single crop is grown on a large area.



4. The help of migrant labourers.
5. The produces is used as raw material in respective industries.

### **Cropping Pattern:**

1. These are also reflected in agricultural practices and cropping pattern in the country.
2. India has three cropping seasons – rabi, kharif and zaid.
3. Rajasthan has also been an important factor in the growth of the above-mentioned rabi crops.
4. The crops produced during 'zaid' are watermelon, muskmelon, cucumber, vegetables and fodder crops.

### **Major crops:**

Major crops grown in India are rice, wheat, millets, pulses, tea, coffee, sugarcane, oilseeds. Cotton and jute, etc.,

### **Non – Food Crops:**

#### **Rubber:**

1. It is an equatorial crop, but under special conditions.
2. It requires moist and humid climate with rainfall of more than 200cm. and temperature above 25°C

#### **Fibre Crops:**

1. Cotton, jute, hemp and natural silk are the four major fibre crops grown in India.
2. Rearing of silkworms for the production of silk fibre is known as sericulture.

#### **Cotton:**

1. India is believed to be the original home of the cotton plant.

#### **In 2008 India was second largest producer of cotton after china. Jute:**

1. It is known as the golden fibre.
2. It is losing market to synthetic fibres and packing materials, particularly the nylon.

#### **Technological and Institutional Reforms:**

1. The pace of agricultural development.
2. Agriculture which provides a livelihood for more than 60 per cent.
3. The government of India embarked upon introducing agricultural in the 1960s and 1970s
4. The government also announces minimum support prices remunerative and procurement prices for important crops.

5. Consolidation of holdings, cooperation and abolition of zamindari, etc. were given priority to bring about institutional reforms in the country after independence.
6. The green revolution based on the use of package technology and the white revolution (operation flood) were some of the strategies initiated to improve a lot of Indian agriculture.
7. Land reform was the main focus of our first five-year plan.
8. Development in few selected areas. In the 1980s and 1990s, a comprehensive land development programme was initiated, which includes both institutional and technological reforms.
9. Provision for crop insurance against drought, flood, cyclone, fire and disease.
10. Establishment of Grameen Banks, cooperative societies and banks for providing loan facilities to the farmers at lower rates of interest.
11. Kissan credit cards and personal accident insurance schemes introduced.
12. Special weather bulletins and agricultural programmes for farmers were introduced on radio and T.V.
13. The government also announces minimum support price.
14. Remunerative and procurement prices for important crops to check the exploitation of farmers by speculators and middleman.

**Contribution of agriculture to the national economy, employment and output:**

1. Gross Domestic Product has registered a declining trend from 1951 onwards. The population continues to be as high as 63 per cent in 2001.
2. The government of India made concerted efforts to modernize agriculture in India.
3. India made concerted efforts to modernize agriculture Establishment of Indian Council of Agriculture.
4. The growth rate in agriculture is decelerating which is an alarming situation.
5. Agriculture backbone of Indian Economy.
6. Share in the gross domestic product.
7. Providing employment.
8. Livelihood to the population.
9. The government of India made concerted efforts to modernize agriculture.
10. Establishment of Indian Council of Agricultural Research, agricultural universities.
11. Veterinary services and animal breeding centers.

12. Horticulture development. Research and development in the field of meteorology and weather forecast.

**Food Security:**

1. The number of people who do not have food security is disproportionately large in some region of our country particularly in economically less developed states with the higher incidence of poverty.
2. The focus of the policy is on fixing the support price for procurement of wheat and rice to maintain their stocks. Food Corporation of India.
3. The FCI procures food grains from the farmers at the government announced minimum support price.
4. The competition for land between non – agriculture uses such as housing etc.,
5. The farmers are badly affected by the uncertainties of production and market.
6. The higher the supply the lower is the demand.

**Impact of Globalisation on Agriculture:**

1. Globalisation is not a new phenomenon. It was there at the time of colonisation.
2. Till today it is one of the important items of export from India.
3. Cotton textile industry in Manchester and Liverpool flourished due to the availability of good quality cotton from India.
4. The Champaran movement which started in 1917 in Bihar.

Under globalisation, particularly after 1990, the farmer in India have been exposed to new challenges.



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CHAPTER -2 AGRICULTURE

**Question 1. Multiple choice questions.**

**(i) Which one of the following describes a system of agriculture where a single crop is grown on a large area?**

- a. Shifting Agriculture
- b. Plantation Agriculture
- c. Horticulture
- d. Intensive Agriculture

**Answer:** (b) Plantation Agriculture

**Explanation:** Plantation agriculture is a form of commercial farming where crops are grown for profit. Large land areas are needed for this type of agriculture.

**(ii) Which one of the following is a rabi crop?**

- (a) Rice (b) Gram (c) Millets (d) Cotton

**Answer:** (b) Gram

**Explanation:** Rabi crops or rabi harvest are agricultural crops that are sown in winter and harvested in the spring in South Asia.

**(iii) Which one of the following is a leguminous crop?**

- (a) Pulses (b) Jawar (c) Millets (d) Sesamum

**Answer:** (a) Pulses

**Explanation:** Commonly known as the legume, pea, or bean family, are a large and economically important family of flowering plants. These plants are used in a crop rotation to replenish soil nitrogen.

**(iv) Which one of the following is announced by the government in support of a crop?**

- a. Maximum support price
- b. Minimum support price Moderate support price
- c. Influential support price

**Answer:** (b) Minimum support price

**Explanation:** Minimum Support Price is the price at which government purchases crops for the farmers, to safeguard the interests of the farmers.



**Question 2. Answer the following questions in 30 words.**

- i. Name one important beverage crop and specify the geographical conditions required for its growth.
- ii. Name one staple crop of India and the regions where it is produced.
- iii. Enlist the various institutional reform programmes introduced by the government in the interest of farmers.
- iv. The land under cultivation has got reduced day by day. Can you imagine its consequences?

**Answer:**

- i. Tea is an important beverage crop. This plant grows well in tropical or subtropical climates, 21°C to 29°C is ideal for the production of tea. The high temperature is required in summer. The lowest temperature for the growth of tea is 16°C, 150-250 cm of rainfall is required for tea cultivation. Tea shrubs require fertile mountain soil mixed with lime and iron. The soil should be rich in humus. Tea cultivation needs well drained land. Stagnation of water is not good for tea plants. Heavy rainfall but no stagnancy of water, such mountain slopes are good for tea cultivation. Deep and fertile well-drained soil which is rich in humus and organic matter. Tea bushes require warm and moist frost free climate through the year.
- ii. Rice is a staple food crop in India. It grows in the Indo-Gangetic plain and north-east India, coastal areas and the deltaic regions. The major rice producing areas are northern plain and coastal and deltaic regions while minor rice producing areas are Punjab plain and part of Deccan plateau. Development of a dense network of canal irrigation and tube wells have made it possible to grow rice in areas of less rainfall such as Punjab, Haryana and western Uttar Pradesh and parts of Rajasthan.
- ii. The various institutional reform programmes introduced by the government for the benefit of farmers are:
  - Provision for crop insurance against drought, flood, cyclone, fire, disease etc. Establishment of
  - Grameen banks, cooperative societies and bank for providing loan facilities to the farmers at a lower rate of interest. Government also announces Minimum Support Price.
  - Subsidy on agricultural inputs and resources such as power and fertilisers. Facilities of Kissan
  - Credit Card and Personal Accident Insurance Scheme.
  - Special weather bulletins and agricultural programmes for farmers were introduced on radio and television.
- iii. A declining area of land under cultivation coupled with increasing population has many consequences. These are:
  - Food shortage for the rising population.
  -

Rise in price of food grains.

- Unemployment and loss of livelihood for farmers. Shortage of
- supply of raw material for agro-industries.
- Adverse effect on export trade as agricultural products comprise a major section of international trade.

Question 3. Answer the following questions in about 120 words.

- i. Suggest the initiative taken by the government to ensure the increase in agricultural production.
- ii. Describe the impact of globalisation on Indian agriculture.
- iii. Describe the geographical conditions required for the growth of rice.

**Answer:** (i) Various initiative taken by the government to ensure the increase in agricultural production are:

- Collectivisation, consolidation of holdings, cooperation and abolition of Zamindari etc. were given priority to bring about institutional reforms in the country after independence.
- Land Reform was the main focus of our 'First Five Year Plan' The Green Revolution was based on the use of package technology and the White Revolution were some of the strategies initiated to improve a lot of Indian agriculture. Minimum Support Price policy, provision for crop insurance, subsidy on agricultural inputs and resources such as power and fertilizers, Grameen Banks, Kissan Credit Card and Personal Accident Insurance Scheme are also some of the reforms brought by Indian Government.

(ii) The impact of globalisation on Indian agriculture has been felt since colonial times. Raw cotton and spices were important export items from India. In 1917, Indian farmers revolted in Champaran against being forced to grow indigo in place of food grains, in order to supply dye to Britain's flourishing textile industry. Thus, globalisation has had its boons and banes for Indian agriculture.

Post liberalisation, Indian farmers face new challenges in the form of competition from highly subsidised agriculture of developed nations. This prompts the need for making Indian agriculture successful and profitable by improving the conditions of small and marginal farmers, countering the negative effects of Green Revolution, developing and promoting organic farming, and diversifying cropping pattern from cereals to high-value crops.

(iii) The geographical conditions required for growth of rice are as follows :

- It is a Kharif crop and requires a hot and humid climate for cultivation. Temperature above 25°C and high humidity with annual rainfall above 100 cm are favourable for the growth of rice.
- Rich alluvial soils of the floodplains and deltaic areas which are renewed every year are ideal for rice cultivation.
- Rice requires abundant rainfall or good water supply through irrigation and flooded fields during the

earlier part of its growing season in June-July.

- Plenty of cheap labour as most of the farming involves manual labour..

