

GEOGRAPHY - RESOURCES AND DEVELOPMENT

A. NCERT TEXTBOOK QUESTIONS

Q.2. Answer the following questions briefly.

(i) Which soil is ideal for growing cotton?

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

(ii) Name three states having black soil.

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

Q.3. What are biotic and abiotic resources, Give some examples.

OR

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

Ans. On the basis of origin, resources can be classified into biotic and abiotic resources.

BIOTIC RESOURCES are

1. substances obtained from **living beings**.
2. They include **flora**, i.e., vegetation, **fauna**, i.e., birds, fishes, domestic and wild life as well as human beings.
3. Everything within the biosphere, which has some utility for man, is a biotic resource.

ABIOTIC RESOURCES are

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

Q.4. Explain the landuse pattern of India and why land has under forest not increased much since 1960–61. What is the impact of the decrease of land under permanent pastures?

Ans.

(A) LAND USE PATTERN OF INDIA

• The total geographical area of India is **3.28 million sq. km.**

- Land use **data** are available for only **93 per cent of the total area** because
- Land use **reporting** for *most of the north-eastern states except Assam* have **not been fully done** and

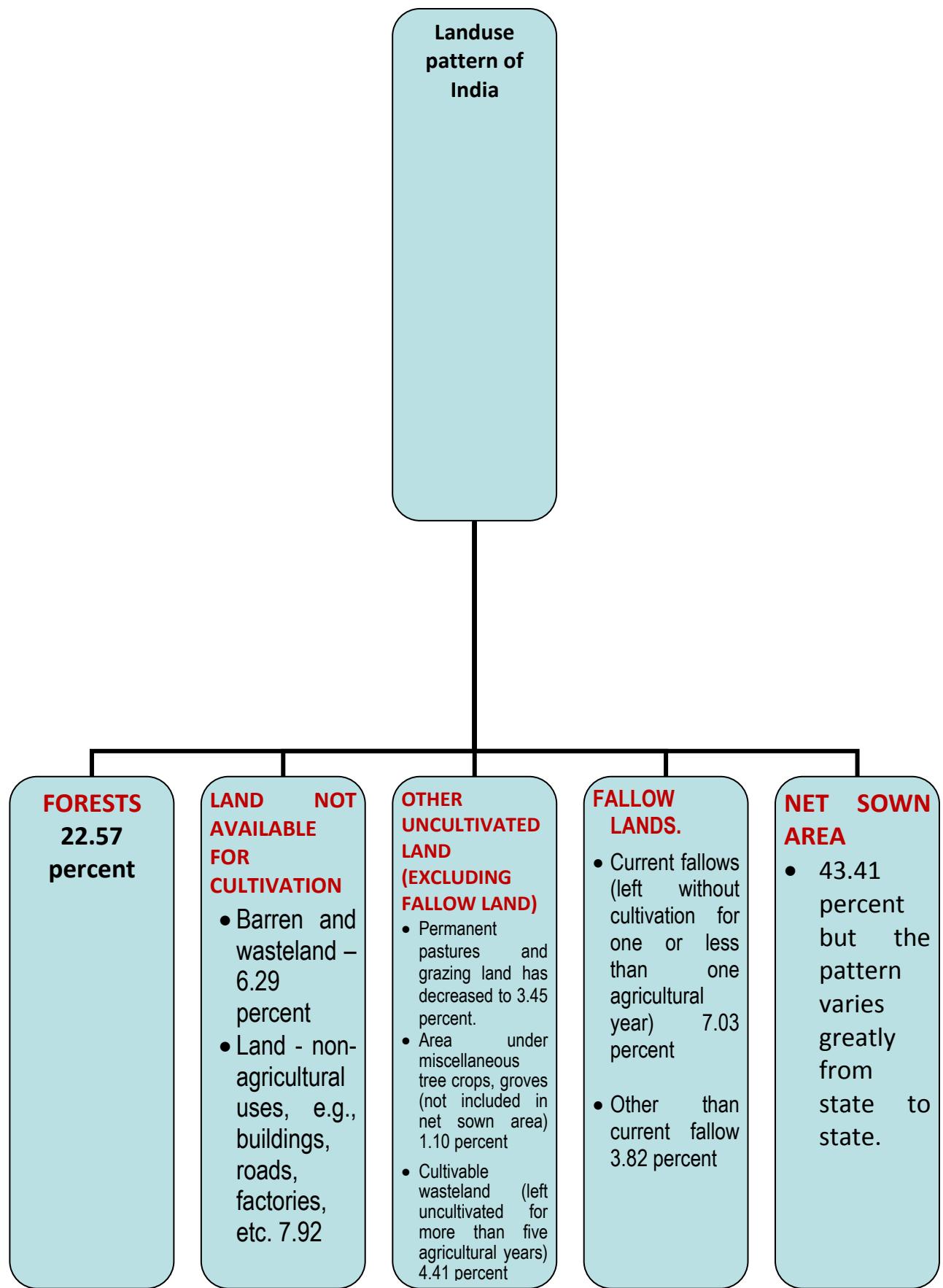
- The areas of **Jammu and Kashmir** under occupation of our neighboring countries **could not be surveyed**.

The present land use pattern shows:

- (i) **FORESTS** – **22.57 percent** much below the desired 33 percent as outlined in the National Forest Policy of 1952.
- (ii) **LAND NOT AVAILABLE FOR CULTIVATION**
 - Barren and wasteland – **6.29 percent**
 - Land put to non-agricultural uses, e.g., buildings, roads, factories, etc. **7.92 percent** of total area
- (iii) **OTHER UNCULTIVATED LAND (EXCLUDING FALLOW LAND)**
 - Permanent pastures and grazing land has decreased to **3.45 percent**.
 - Area under miscellaneous tree crops, groves (not included in net sown area) **1.10 percent**.
 - Cultivable wasteland (left uncultivated for more than five agricultural years) **4.41 percent**.
- (iv) **FALLOW LANDS.**
 - Current fallows (left without cultivation for *one or less than one* agricultural year) **7.03 percent**
 - Other than current fallow **3.82 percent**
- (v) **NET SOWN AREA** **43.41 percent** but the pattern varies greatly from state to state.

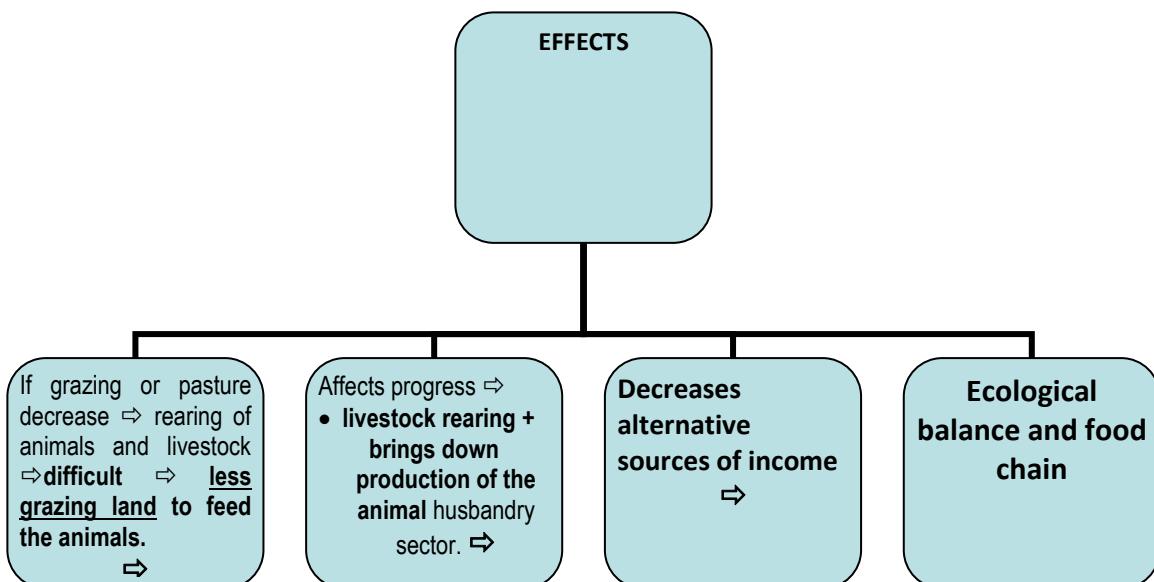
(B) WHY LAND UNDER FOREST HAS NOT INCREASED MUCH SINCE 1960–61

- 1) The land under forest has not increased since 1960–61 because in the post-independence era
 - a) demand for more land to expand agriculture, mainly after Green Revolution,
 - b) developmental works and
 - c) Infrastructural facilities led to clearance of forests areas.
 - d) Industrialization and urbanization also decreased the forest area.
- 2) **Forestation** was carried due to the concern of **ecological balance** and this led to **marginal expansion** from **18.11 per cent in 1960–61** to **22.57 percent in 2002–03** but it is much below the desired **33 percent of geographical area** as outlined in the **National Forest Policy**.



(C) EFFECTS

- a) If grazing or pasture lands decrease, rearing of animals and livestock becomes **difficult**, as there is **less grazing land to feed the animals**.
- b) This affects progress in **livestock rearing and brings down production of the animal husbandry sector**.
- c) It also decreases **alternative sources of income** for the farmers.
- d) This will disturb the **ecological balance and food chain**.



Q5. Suggest measures of soil conservation in hilly and mountainous areas.

Q.8. Explain any three steps that can be taken to solve the problem of land degradation/erosion. [2010, 2011 (T-1)]

OR Q.16. What steps can be taken to control soil erosion in hilly areas?

Q.19. Suggest any three measures of soil conservation.[2010 (T-1)]

Ans.

In hilly and mountainous areas the following measures can **control soil erosion** and help in **soil conservation**.

- A) **CONTOUR PLOUGHING OR PLOUGHING** along the contour lines of a highland can decelerate (*slow down*) the flow of water down the slopes.
- B) **TERRACE CULTIVATION OR CUTTING OF STEPS** around the slopes to (1) provide land for agriculture also (2) checks downhill flow of water and (3) controls soil erosion, e.g., as in Western and Central Himalayan region.
- C) **AFFORESTATION OR PLANTING OF TREES** in the hilly regions can help in soil conservation.
- D) **CREATING SHELTER BELTS** — planting of trees to create shelter. Rows of such trees are called shelterbelts.
- E) **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 reducing its effect.

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

LONG Q.5. What is the need for 'conservation of resources'? Elucidate in the light of Gandhiji's view.

Ans.

- 1) Technical and economic development **involves more utilization and exploitation of resources** for the purpose of present development.
- 2) According to Gandhiji, (1) **the greedy and selfish individuals** and (2) exploitative nature of **modern technology** are the *root cause for resource depletion at global level*.
- 3) The **history of colonization** reveals that it was primarily the **higher level of technological development of the colonizing countries** that helped them to (1) **exploit resources of other regions and (2) establish their supremacy over them.**
- 4) When **Economic development takes place, more** and proper **utilization of available resources** for the purpose of advancement takes place.
- 5) **Technical development makes it easy to access and exploit resources.**
- 6) Hence, technical and economic developments lead to more and 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.

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

The six 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.
- (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.**
- (vii) Uttar Pradesh and Bihar have alluvial soils.
- (viii) This rich soil is ideal for growth of **paddy, wheat, sugarcane and other cereals and pulses.**

C. SHORT ANSWER TYPE QUESTIONS (3 MARKS)

Q.1. Distinguish between potential resource and stock with the help of examples.

Ans.

POTENTIAL RESOURCE Have the knowhow but didn't take any action to use it	STOCK Do not have the knowhow to date
1) Resources which are found in a region, but have not been utilized are termed as potential resource this is mainly due to the lack development of technology and infrastructure.	1) Stocks, on the other hand, are materials in the environment which have the capacity to satisfy human needs but human beings do not have the appropriate technology to access these.
<ul style="list-style-type: none"> For example, the states of Rajasthan and Gujarat have enormous potential for development of wind and solar energy, but they have not been significantly developed yet. 	<ul style="list-style-type: none"> For example, water is a compound of two inflammable gases, hydrogen and oxygen, which can be used as a rich source of energy. However, the required technical knowhow to use these abundant gases for this purpose is not available at present.
<ul style="list-style-type: none"> Similarly, the hot springs of Himalayan region have potential for development of geothermal energy but their development is lacking. 	<ul style="list-style-type: none"> Similarly, by development of desalination project we can make ocean water useable for drinking purpose. But we do not have the proper expertise and funds to use them in India, but our future generations may be able to do so like with advancement of science and technology like it is done in the UAE
<ul style="list-style-type: none"> Mineral deposits lie buried in mountains and oceans but their exploitation is lacking. 	

Q.2. What does the term 'sustainable economic development' mean? How can we eradicate irrational consumption and over-utilization of resources? OR Why do we need to conserve our resources?

Ans.

- 1) **MEANS:** Sustainable economic development means '⇒(1) Development should take place without damaging the environment' and (2) development in the present should not compromise with the needs of the future generations.
- 2) **LEAD TO :** (1) Irrational consumption and (2) over-exploitation of resources lead to many socio-economic and environmental problems.
- 3) **ACTION:** To (1) overcome these problems and (2) to preserve resources for our future generation as well, we must
 - (a) Eradicate irrational consumption and over-exploitation of resources
 - (b) by proper management and conservation of resources.

Q.3. List the problems caused due to indiscriminate (unplanned) use of resources by human beings.

Ans. Indiscriminate use of resources by human beings has led to **economic, social and ecological problems**. The major problems that have arisen due to **over-exploitation, irrational consumption and indiscriminate use of resources** are :

- 1) Depletion of resources for satisfying the *greed of a few selfish individuals*.
- 2) Accumulation of resources in a few hands, which in turn, has led to **social segregation** into rich and poor. The society is divided into two segments, i.e., have and have-nots.
- 3) Indiscriminate and uncontrolled exploitation of resources without consideration for the future have led to **grave ecological problems** like global warming, ozone layer depletion, environmental pollution and land degradation.

Q.4. Why does the pattern of net sown area vary from one state to another?

Ans.

- 1) The pattern of net sown area **varies greatly** from one state to another.
- 2) It is over **80 percent** of the total area in Punjab and Haryana. Geographical conditions like (a) *climate and soil* here are favourable for cultivation. Further, due to (b) **agricultural advancement** through Green Revolution, more areas have been brought under cultivation.
- 3) On the other hand, **less than 10 percent** of the total area is net sown **area** in Manipur, Mizoram, Arunachal Pradesh and Andaman and Nicobar Islands. 1. **Topographical constraints**, 2. unfavourable climate as well as 3. socio-economic reasons account for the **low proportion of net sown areas** in these states.
- 4) On account of the vast expanse of India, its **1. relief, 2. climate, 3. soil and 4. socio-economic** set-up vary from region to region accounting for the **variation in the pattern** of net sown area from one state to another.

Q.5. Analyse the four main factors which help in the formation of soil.

Or What leads to formation of soil.

Ans.

1. **FACTORS FOR THE FORMATION OF SOIL:** Relief, climate, vegetation and other forms of life, especially decomposers, and time are **important factors** in the **formation of soil**.
2. **DISINTEGRATION OF THE PARENT ROCKS:** due to **climatic factors** like **change of temperature, wind and frost action and rainfall and natural forces** like **action of**

running water, wind, glaciers etc., lead to disintegration of rocks. This leads to the formation of soil.

3. The four most important **factors of soil formation** are thus :

- (i) **Relief** (*Relief is the difference in elevation (or height) between parts of the Earth's surface*) determines the **nature of weathering and erosion**.
- (ii) **Climate** determines the (1) **rate and (2) factor of denudation** (*denudation the act or process of removing Earth's surface by moving water, ice, wind and waves, leading to a reduction in elevation(height) and relief of landforms and landscapes*) of the rocks and **influences (3) weathering and (4) erosion**.
- (iii) **Nature of the parent rock** determines the **colour, texture and mineral content** of the soil.
- (iv) **Time** determines **maturity of the soil**; usually it takes millions of years to form soil upto few cms in depth.

PREVIOUS YEARS' QUESTIONS

Q.1. Distinguish between renewable and non-renewable resources. [2010, 2011 (T-1)]

Ans.	Renewable resources	Non Renewable resources
(i)	The resources which get renewed by physical, chemical or mechanical processes are known as Renewable resources	(i) These resources occur over a very long geological time . They gradually get exhausted with use .
(ii)	These resources are generally available throughout the world .	(ii) These resources are generally unevenly distributed on the earth
(iii)	Examples Water, solar energy, wind energy,	(iii) Example Minerals, coal, petroleum

Q.2. Distinguish between Khadar and Bangar. Name any two states where alluvial soils are found. [2010, 2011 (T-1)]

Ans.	KHADAR SOILS	BANGAR SOILS
(i)	On the basis of age these are new alluvial soils.	(i) On the basis of age these are old alluvial soils.
(ii)	These soils are fine, sandy and fertile .	(ii) These soils are clayey, dark in colour, contains kankar nodules and is less fertile than Khadar soils .
(iii)	They are found in the lower reaches of river valleys.	(iii) They are found in the upper reaches of river valleys.

Uttar Pradesh and Bihar have alluvial soils.

Q.3. What is resource planning? Give three phases of resource planning.
[2010, 2011 (T-1)] Ans.

- 1) Resource planning is **proper** and judicious planning of resources. Three processes are involved.
- 2) Resources are put **to use according to availability and needs for development** of the Economy. The three processes are :-
 - (a) **Identification and inventory** (*calculating how much resources we have*) of **resources** across various regions of the country. It involves (1) surveying, (2) mapping, (3) qualitative and quantitative **estimation** and (4) measurement of the resources.
 - (b) **Evolving (distributed)** by (1) planning structure, (2) endowed (*gifted*) with appropriate technological skill and (3) institutional set up for implementing resource development plans.
 - (c) **Synchronizing (match)** the **resource development** with **overall national development plans**.

Q.4. Differentiate between stock resources and reserves. [2010, 2011 (T-1)]

Ans.	Stock Resources	Reserves
	<p>(i) The things present in the nature which have the potential to satisfy the human needs but due to non-availability of appropriate technology these cannot be used for the time being, are called stock.</p> <p>(ii) For example water– it has oxygen and hydrogen, these can be used in energy sector but we cannot use them as much.</p>	<p>(i) These are the subset (part) of stock which can be put to use with the help of existing technology but they are still unused.</p> <p>(ii) They can be used for future generation or requirement.</p>

Q.5. Explain what is meant by **national resources and **individual resources**?**
[2010 (T-1)] Ans.

- 1) **National Resources** :-
 - a) Technically **all resource** belongs to the **nation**.
 - b) The country has **legal powers** to acquire even **private property for public good**.
 - c) All the **minerals, water, forest, wildlife, land** without the **political boundary and oceanic area up to 12 Nautical miles from the coast** are National Resources.
- 2) **Individual Resources** :-

- a) The resources that are **owned by individuals** - like farming own farms, residential plots, plantation, and all household goods, etc.

Q.6. Explain the resources on the basis of origin and exhaustibility. [2010, 2011 (T-1)]

Ans.

RESOURCES ON THE BASIS OF ORIGIN :-

- (a) **Biotic** :- Those resources which are available in biosphere and have life such as human beings flora and fauna etc.
(b) **Abiotic** :- All those things which are non-living are called abiotic resources. For example, rocks, soils and minerals

RESOURCES ON THE BASIS OF EXHAUSTIBILITY :-

- (a) **Renewable resources** :- The resource which can be renewed are Renewable resources. For Example water, forest wind etc
(b) **Non-renewable resources** :- These resources occur over a very long time and get exhausted minerals and fossil fuels are examples of these resources.

Q.7. What is soil erosion? Write two human activities that lead to soil erosion.

[2010 (T-1)] Ans. The denudation (losing top soil) of the soil cover and subsequent washing down is described as soil erosion.

Two human factors leading to soil erosion are :

- (a) **Deforestation** :- Due to heavy deforestation for rapid urbanization, building infrastructure and industrialization, **soil erosion** is increasing.
(b) **Overgrazing** :- In many regions people still practice grazing of cattle, goats and sheep. Gradually this leads to **soil erosion**.

Q.9. Explain the role of human in resource development. [2010, 2011 (T-1)]

Ans.

1. Human is at the **centre of resource development**.
2. Actually **all resources** become **resource** only when they are **put to use by humans and they can do it with help of technology**.
3. Had no **technology** been there, **development** would not have been **possible**.
4. There are **regions where natural resources** are in abundance but regions **not developed** for example Africa. But if **human are developed with the help of technology thus they make the region developed**, for example, Japan.

Q.10. Explain the importance of conservation of resources.

NOTE: Similar to sustainability write without using the word sustainability

[2010 (T-1)] Q.2. Page 6 What does the term 'sustainable economic development' mean? How can we eradicate irrational consumption and over-utilisation of resources?

- 1) **MEANS:** ~~Sustainable economic development means~~ \Leftrightarrow (1) Development should take place **without damaging the environment** and (2) development in the present should not **compromise with the needs of the future generations**.
- 2) **LEAD TO :** (1) Irrational consumption and (2) over-exploitation of resources **lead to many socio-economic and environmental problems**.
- 3) **ACTION:** To (1) **overcome these problems** and (2) **to preserve resources** for our future generation as well, we must
 - (a) **Eradicate** irrational consumption and over-exploitation of resources
 - (b) by **proper management and conservation of resources**.

Q.11. Why is it important to raise the land area under forests? [2010 (T-1)]

Ans.

1. It is very important to raise area under forest because **forests are essential for maintenance of the Ecological balance**.
2. The **livelihood of millions of people** who live on the fringes of these forests depends upon it.
3. Forest also provides **a number of goods** that are required for **industry and medicines** etc.
4. Forest also helps in **soil conservation and rainfall**.

Q.12. Describe any three main characteristics of arid soil of India. [2010 (T-1)]

Ans. There characteristics of Arid soils in India are —

1. They range from **red to brown colour**
2. They are generally **sandy in texture and saline in nature**
3. In some areas **salt content is higher** and **common salt is obtained by evaporation of water**.
4. Due to the **dry climate, high temperature, evaporation is faster and the soil lacks humus and moisture**.

Q.13. Highlight any three problems associated with the indiscriminate use of resources by the human beings. [2010, 2011 (T-1)]

Ans. Indiscriminate use of resources creates following problems :-

- (i) Global ecological crises such as **global warming**.
 - (ii) It has also led to **depletion of the ozone layer**.
 - (iii) It has also caused **environmental pollution and land degradation**.
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- | |
|--|
| (iv) NEW The resultant threat to ecology and environment has put the future of our planet in danger . |
| (v) Natural disasters have become very frequent. |
| (vi) Many species of flora and fauna have already become extinct . |

Q.14. "Consequences of environmental degradation do not respect national or state boundaries." Justify the statement. [2010 (T-1)]

Ans.

- (i) As environment belongs to the Earth **its impact felt by the whole planet.**
- (ii) For example if **carbon dioxide is being released** by some rich countries **global warming** is **affecting the lives of all the people** on the planet.
- (iii) **Air pollution moves** along with air and cannot be restricted to any place or country.
- (iv) **Ozone layer depletion** has **serious consequences for people all over the world.**

Q.15. Describe any three types of soil available in India. [2010 (T-1)]

Ans. Three important soils of India are :—

(i) **Alluvial Soils** :- It is most important and widespread soil of India. The entire northern plain is made of this soil. Alluvial have been deposited by three important Himalayan rivers — Ganga, Brahmaputra and Indus. These soils consist of various proportions of sand, silt, and clay. These are of two types : Khadar and Bangar. They contain potash, phosphoric acid and limestone.

(ii) Black Soil :-

- These soils are **black in colour** and are also known as Regur or cotton soils.
- This type of soil is found in **Deccan plateau region** and is made up of lava flows.
- They are well known for their **capacity to hold moisture.**
- They are **rich in calcium carbonate, magnesium, potash and lime.**

(iii) Laterite Soil :-

- Laterite soil develops in **areas of high temperature and heavy rainfall.**
- This is the result of **intense leaching** (*For understanding - leaching is the loss of mineral and organic solutes due to very heavy rainfall, high temperature and percolation (Percolation is the process of a liquid slowly passing through a filter. Laterites are formed from the leaching of parent sedimentary rocks (sandstones, clays, limestone); metamorphic rocks (schists, gneisses, migmatites); igneous rocks (granites, basalts, gabbros, peridotites); and mineralised proto-ores;).*
- **Humus content of soil is very low.**
- These are found in **Karnataka, Kerala, Tamil Nadu, Madhya Pradesh and the hilly areas of Orissa and Assam.**

Q.17. Mention advantageous and disadvantageous characteristics of black soil. [2011 (T-1)]

Ans.

Advantage

1. These soils are **black in colour** and are also known as Regur or cotton soils.
2. This type of soil is found in **Deccan plateau region** and is made up of lava flows.

3. They are well known for their **capacity to hold moisture**.
4. They are **rich in calcium carbonate, magnesium, potash and lime**.
5. **NEW:** Black soil **develops deep cracks during summer** which helps in proper aeration (*ventilation*) of the soil.

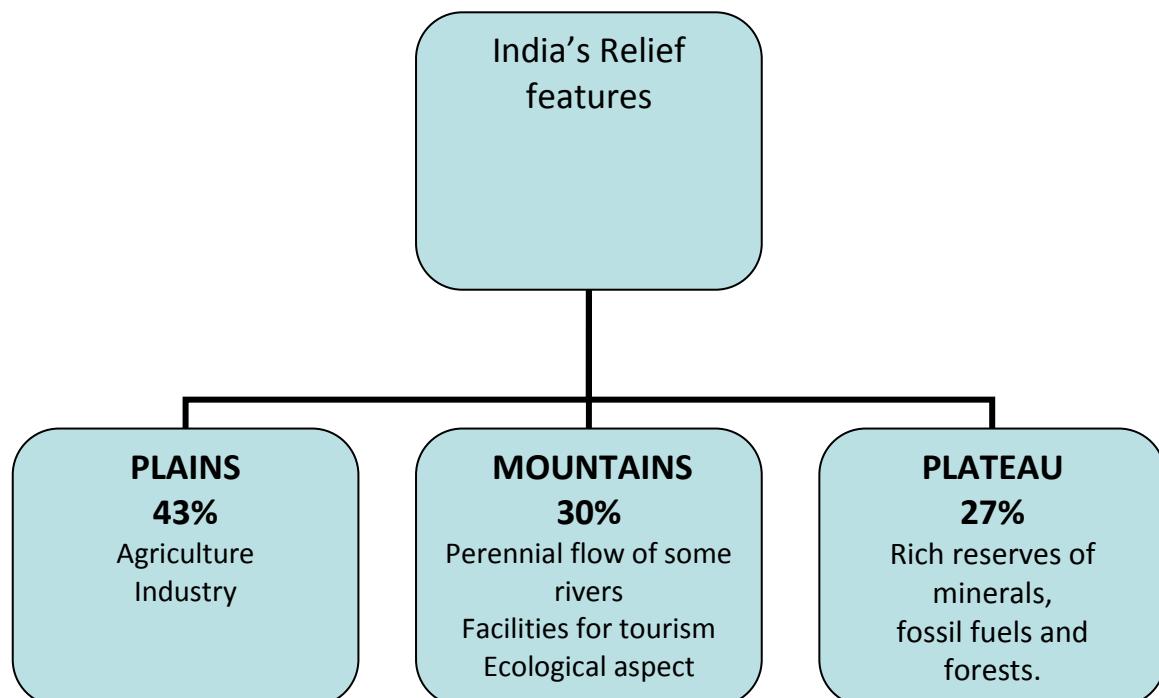
Drawback

1. But black soils are **poor in phosphoric contents**.
2. These soils are sticky **when wet and difficult to work on unless tilted (*shuffled*) just after the first shower**.

Q.18. "India's vast and diverse size is the most important resource." Support the statement. [2011 (T-1)]

Ans.

1. India has land under a **variety of relief features** such as plains, plateaus, mountains and islands.
2. About **43 per cent of land areas are plain**, which provides facilities for **agriculture and industry**.
3. **Mountains account for 30 per cent** of the total surface area of the country and ensure **perennial flow of some rivers**, provide facilities for **tourism and ecological aspects**.
4. About **27 per cent of the area is the plateau region**. It possesses **rich reserves of minerals, fossil fuels and forests**.



D. LONG ANSWER TYPE QUESTIONS (4 MARKS)

Q.1. What are 'resources'? Distinguish between renewable and non-renewable resources. Give examples.

Q.2. What are the steps involved in the complex process of resource planning? Why is resource planning important in the context of a country like India NEW?

Ans. Resource planning is a complex process which involves:

(i) Identification of resources across the country through surveying, mapping and preparation of inventory of resources through their quantitative and qualitative estimation and measurement.

(ii) Develop a planning structure for resource development taking into account technology, skill and infrastructure available for implementing the plans.

Matching the resource development plans with overall national development plans. This involves systematic planning of exploitation of resources.

Done earlier Page 9

Q.3. What is resource planning? Give three phases of resource planning. [2010, 2011 (T-1)]

Resource planning important in the context of a country like India NEW

1. Resource planning is important in a country like India, which has enormous diversity in the availability of resources. While some regions are rich in certain types of resources, they may be deficient in some other types of resources.
2. Thus, for proper development, distribution, sharing and utilisation of resources, taking into consideration the technology, quality of human resources and historical experiences of the people, resource planning is essential for development.
3. India has made concerted efforts for achieving the goals of resource planning right from the First Five Year Plan launched after Independence.

Q.3. What are the main types of soil found in India? Which type of oil is the most widespread and important soil of India ? Describe in detail about this soil type.

Ans. The main types of soil found in various parts of India are as follows :

- (i) Alluvial soil.
- (ii) Black soil.
- (iii) Red and yellow soil
- (iv) Laterite soil
- (v) Arid or Desert soil.
- (vi) Forest and Mountainous soil.

Write: Q.7. Which is the most widely spread and important soil of India? State any six characteristics of this type of soil. Page 5

Q.4. What is soil erosion? How do human activities and natural forces cause soil erosion? Suggest measures of soil conservation in hilly, and mountainous areas and in desert areas.

Ans.

Covered earlier DO NOT FORGET TO answer all the questions

PREVIOUS YEARS' QUESTIONS

Q.1. What does the term 'land degradation' mean? Which human activities have contributed significantly in land degradation? Suggest measures to solve the problems of land degradation.

OR

What are the reasons for land degradation? Describe any four measures to conserve land. (2010)

Ans.

Covered earlier

Q.2. What is resource planning? Why is resource planning essential? Explain with three reasons. (2008)

Covered earlier

Q.3. Explain any four human activities which are mainly responsible for land degradation in India. (2009) NEW

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.

RECAP

1. **Jharkhand, Chhattisgarh, Madhya Pradesh and Orissa** \Rightarrow deforestation \Rightarrow Mining
2. Mineral dust - grinding of limestone for cement industry and calcite and soapstone for ceramic industry \Rightarrow slows down water penetration in the soil – Similarly Industrial effluences and waste
3. **Gujarat, Rajasthan, Madhya Pradesh and Maharashtra** \Rightarrow overgrazing
4. **Punjab, Haryana and Western Uttar Pradesh** \Rightarrow over-irrigation \Rightarrow water logging \uparrow salinity and alkalinity \Rightarrow soil fertility

Four 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** have caused **severe land degradation**. **Mining sites** are dug, drilled or **quarried** (*A quarry is a place from which stone, rock, construction aggregate, riprap, sand, gravel, or slate has been excavated*) and abandoned after excavation (digging) work is over, leaving the land overburdened 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 (*slows down*) the process

of infiltration (*penetrate*) of water into the soil, thus, degrading the land. Similarly discharge of industrial effluents and wastes cause pollution and land degradation in industrial regions.

(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.

Q.4. Give the importance of soil. Explain any three factors responsible for soil formation. (2009)

Covered earlier

Q.5. Classify resources on the basis of ownership into four categories. Mention the main features of each. (2009)

Ans. On the basis of ownership resources can be classified into the following categories :

- (i) Individual Resources. (ii) Community Owned Resources **NEW.**
(iii) National Resources. (iv) International Resources **NEW.**

(i) Individual resources are owned privately by individuals or group of individuals. Plots of lands owned by farmers, pasture lands, ponds, orchards, water in wells, are examples of resources owned by individuals in the villages. Plots of lands, houses, cars, and other property are some examples of individual resources in urban areas. Plantations are also individual resources. Its plot of land, management, revenue, products and profits are under individual ownership.

(ii) Community Owned Resources **NEW.**

1. Community owned resources are **accessible to all members of the community**.
2. These resources can be **used by all people living in the area**.
3. Picnic spots, maidans, village ponds, grazing grounds, burial grounds, etc., in villages; playgrounds, public parks, markets, etc in urban areas are **examples** of community owned resources.

(iii) National Resources mean all resources owned by a nation. All the forests, wildlife, minerals, water resources, land within the political boundaries of a nation and oceanic area up 12 nautical miles, i.e., 19.2 km, from the coast termed as territorial water, and resources therein belong to the nation and are termed as national resources.

(i) International Resources **NEW.**

1. International Resources are under the **jurisdiction (authority) and regulation of international organizations**.
2. The **oceanic resources beyond 200 km of the Exclusive Economic Zone** belong to **open oceans and no individual country** can utilize these without the concurrence (*agreement of all*) of international institutions, e.g. **manganese nodules in bed of the Indian Ocean**.