



BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI – 110034
SUBJECT – GEOGRAPHY

CLASS - 10

CHAPTER – RESOURCES AND DEVELOPMENT

Kindly read the content given below and view the links shared for better understanding. Attempt the given assignment in the Geography notebook. Please mention date, index and topic.

Link for the online textbook (Geography-NCERT)

<http://ncert.nic.in/textbook/textbook.htm?jess1=1-7>

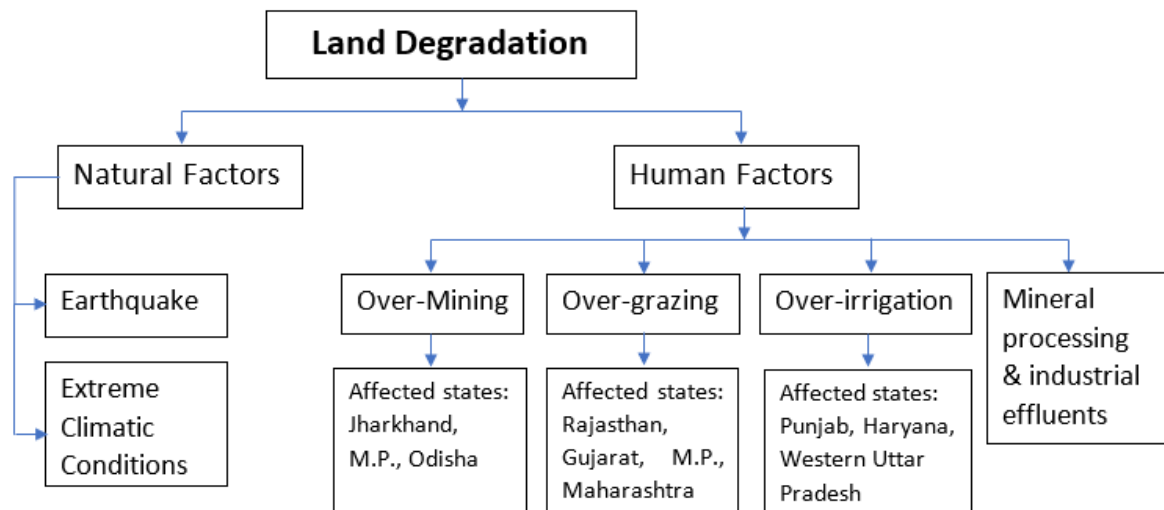
POINTS OF RECAPITULATION

- Land is a basic resource.
- Found mainly in the form of mountains, plateaus and plains.
- Is mainly used for agriculture, settlement, construction activity, forestry, mining.
- Land Utilization in India has changed over time and space.

In continuation to the topic 'Land Resource', we will be learning about degradation of land and measures that can help in conservation of this important resource. Further, we will also be doing detailed study on 'Soil as a Resource'.

LAND DEGRADATION

Reasons for land degradation can be explained with the help of the following flow chart:



Land, if degraded because of natural reasons can get replenished on its own provided there is no human intervention and proper time period is provided to the resource.

Unfortunately, human activities have not only led to huge degradation of land but have also aggravated the pace of natural forces to cause damage to land.

CONSERVATION OF LAND RESOURCE

Simple efforts and awareness can do wonders for conservation of land resource:

- Afforestation
- Proper disposal of industrial waste
- Effective waste land management policy
- Treatment and disposal of biodegradable, chemical and radioactive waste
- Controlling rapid mining
- Improving agricultural practices and checking overgrazing

SOIL AS A RESOURCE

Soil is an important renewable grainy substance covering the continental crust. It not only supports the growth of vegetation and agricultural crops, but also helps in collection of underground water.

There is no doubt in saying that this particular resource is really very important for a country like India that supports agriculture largely.

Factors causing its formation:

- Rock(Weathering, erosion)
- Physical Features: Mountain(Slope), Rivers, Coastal area
- Climate(Temperature, rainfall)
- Flora and Fauna
- Time

Different factors are responsible for different characteristics of soil including texture, fertility, chemical properties and therefore, it further leads to classification of soil.

CLASSIFICATION OF SOIL

A variety of relief features, landforms, climate and vegetation types have contributed to a variety of soils in India.

SOIL	FORMATION	CHARACTERISTICS	REGIONS COVERED
Alluvial Soil	Deposition of sediments done by rivers (mainly Ganga, Indus and Brahmaputra) and their tributaries. Weathering, erosion and deposition of rocks play an important role in the formation of the soil.	<ul style="list-style-type: none">- Most widely spread and important for cultivation- Consists of sand, silt, and clay- Soil is further divided into Khadar and Bhangar- Contains potash, phosphoric acid, and lime	The entire Northern Plains (Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal, Assam). Also extends in Rajasthan, Gujarat and eastern coastal plains (deltas of Mahanadi, Godavari, Krishna, Kaveri)
Black Soil	The spread of igneous rock becomes a major factor along with weathering, erosion and deposition for the formation of Black Soil.	<ul style="list-style-type: none">- Also known as Regur Soil- Ideal for cultivation of cotton, therefore also known as Black Cotton Soil- Clayey material of soil	Covers the entire Deccan Trap of India that includes plateaus of Maharashtra, Madhya Pradesh, Chattisgarh.

		<ul style="list-style-type: none"> - High moisture holding capacity - Rich in calcium carbonate, magnesium, potash and lime. - Develops deep cracks during hot weather 	
Red and Yellow Soil	Develops on crystalline igneous rocks. Diffusion of iron in the soil gives red colour to the soil. Further hydration of the soil gives it the yellow colour.	<ul style="list-style-type: none"> - Develops in low rainfall areas - The soil contains traces of minerals like iron 	Found mainly in parts of Odisha, Chattisgarh, and piedmont zone of Western Ghats
Laterite Soil	Develops in areas with high temperature and heavy rainfall. Intense leaching leads to the formation of soil. (Leaching – Removal of top layer of soil due to heavy rainfall) Climate becomes the factor for formation.	<ul style="list-style-type: none"> - Humus in the soil is low as decomposers get destroyed due to high temperature - Can be used for cultivation (mainly tea, coffee, cashew nut) by adding manures and fertilizers 	Found in Karnataka, Kerala, Tamil Nadu, Madhya Pradesh, parts of Odisha and Assam.
Arid Soil	Dry climate, high temperature leads to fast evaporation and lack of humus and moisture	<ul style="list-style-type: none"> - Range from red to brown colour - Soil is generally sandy in texture and saline in nature - Lower horizon of soil is occupied by kankar. 	Mainly found in the western parts of Rajasthan and parts of Gujarat
Forest and Mountain Soil	Covers mainly the Himalayan states. Rich humus makes the soil fertile	<ul style="list-style-type: none"> - Loamy and silty to coarse grain 	Found in hilly and mountainous areas where sufficient forests are found

SOIL DEGRADATION

- 1) **GULLIES**: The running water cuts through the clayey soils and makes deep channels as gullies.

This land becomes unfit for cultivation and is known as Bad Land.

In Chambal basin, Bad Lands are known as Ravines.



2) **Sheet Erosion**: Water flows as sheet over a large area down a slope. Top soil is washed away.



3) **Wind Erosion**: Wind blows loose soil off which is known as wind erosion.



SOIL DEGRADATION AND CONSERVATION

FACTORS OF SOIL DEGRADATION	METHODS OF SOIL CONSERVATION
<ul style="list-style-type: none">• Natural Factors like wind, glaciers, water• HUMAN FACTORS <p>-Deforestation</p> <p>-Poor agricultural practices</p> <p>-Excessive mining</p> <p>-Over grazing</p> <p>-Urban Construction</p>	<ul style="list-style-type: none">• Improving agricultural practices• Practicing organic farming through organic inputs• Checking overgrazing• Stabilizing the movement of sand dunes by growing some vegetation on them to hold the soil• Methods like :-contour ploughing (on mountains)<ul style="list-style-type: none">- Strip Cultivation (on plains)-Shelter belts (on coastal areas)-Terrace farming (on mountains)



SHELTER BELTS



STRIP CROPPING



TERRACE CULTIVATION

ASSIGNMENT (IN CONTINUATION OF PREVIOUS ASSIGNMENT)

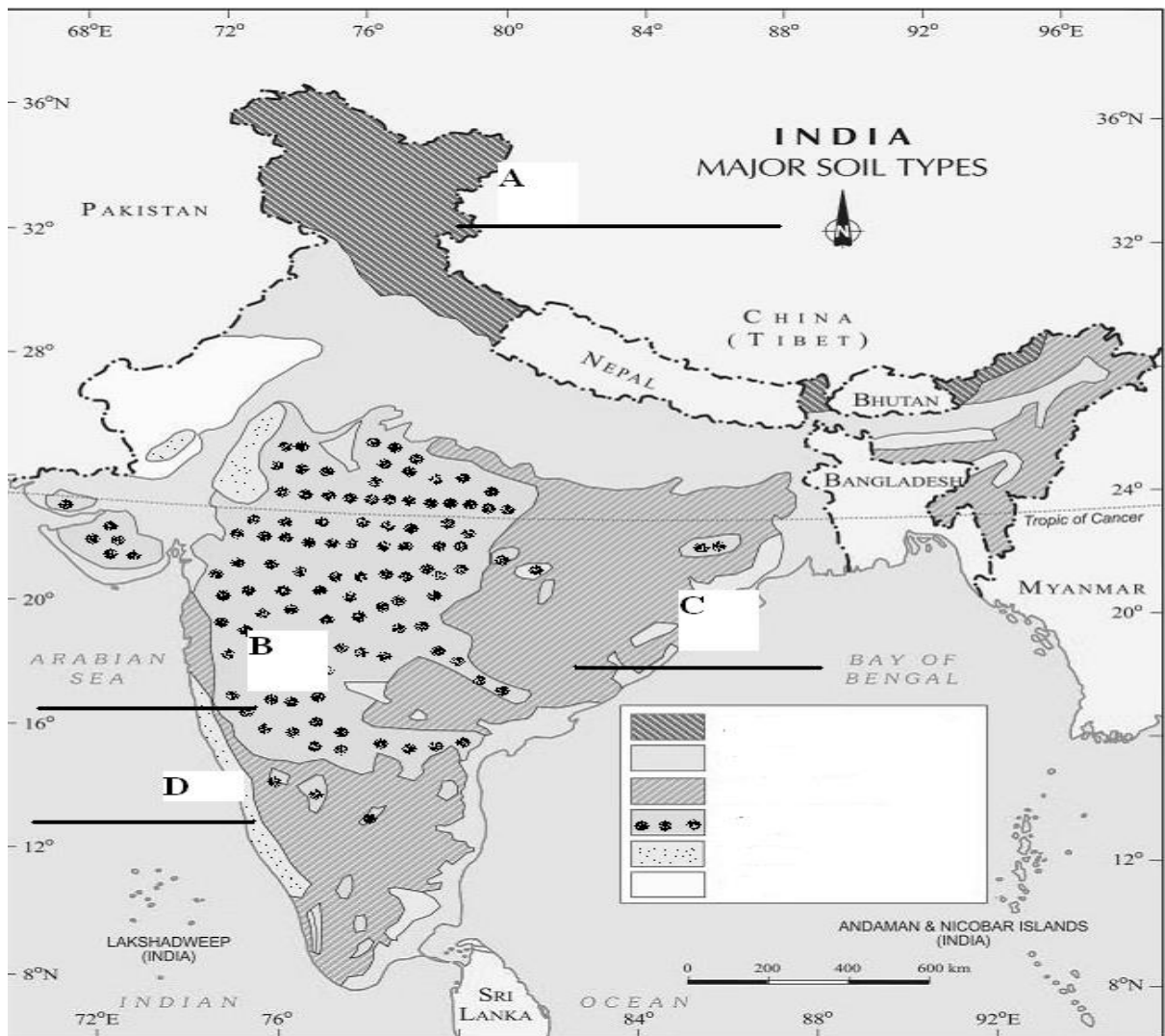
Q.16. Explain the human factors responsible for land degradation. (Refer to NCERT Geography – Page No. 7)

Q.17. What leads to lack of humus in Arid Soil and high humus content in Forest and Mountain soil?

Q.18. Explain the methods of soil conservation. (Any four)

Q.19. Why is the colour of Red and Yellow Soil largely red?

Q.20. Identify the types of soil in the map provided. (Write the answer in the notebook if the print out of the map is not available.)



BBPS