



TOPICS

to be covered

1

Resources and Development One Shot





Resources and Development



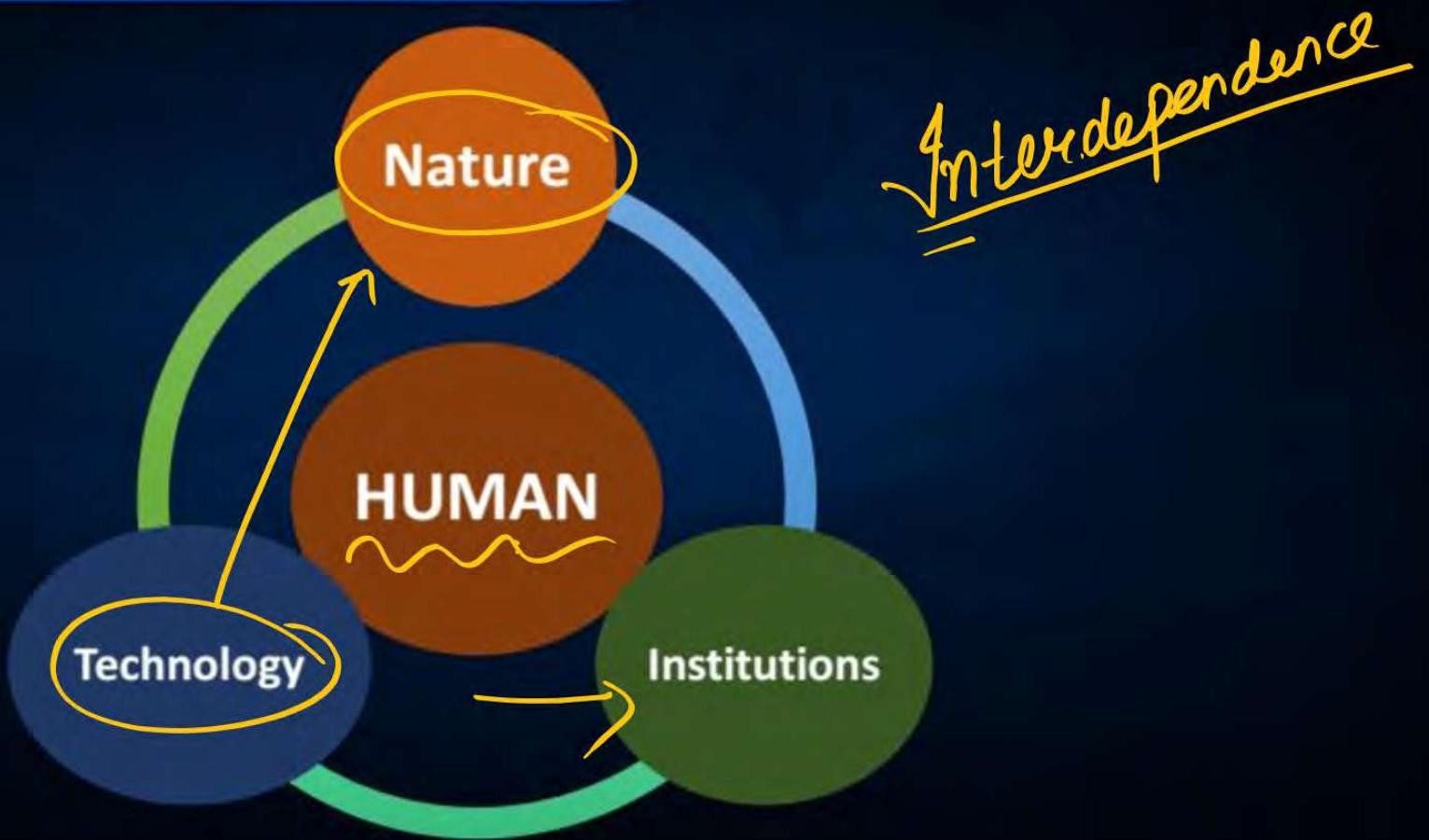
- Everything available in our environment which can be used to satisfy our needs, provided:
 - Technologically accessible,
 - Economically feasible
 - Culturally acceptable
 - Can be termed as 'Resource'.

Ex.
GOLD





Resources and Development





Types of Resources



- (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.





Development of Resources



- QH
- o Depletion of resources
 - o Accumulation of resources
 - o Indiscriminate exploitation of resources
- ? To satisfy greed of
a few individuals
- Haves
Have Nots

Global Ecological Crisis,
Ozone layer depletion,
Global warming,
pollution





Sustainable Development



- If the present trend of resource depletion by a few individuals and countries continues, the future of our planet is in danger.
- **NEED?**

Sustainable Development :

Means 'development should take place without damaging the environment, and development in the present should not compromise with the needs of the future generations.'

AGENDA 21





Rio de Janeiro Earth Summit, 1992



Rio de Janeiro Earth Summit, 1992

- In June 1992, more than 100 heads of states met in Rio de Janeiro in Brazil, for the first International Earth Summit.
- The Rio Convention endorsed the global Forest Principles and adopted Agenda 21 for achieving Sustainable Development in the 21st century.

Q.) Explain Agenda 21.



Agenda 21



Agenda 21

The declaration signed by world leaders in 1992 at the **United Nations Conference on Environment and Development (UNCED)**, which took place at Rio de Janeiro, Brazil.

It aims at achieving global sustainable development.

Aims to combat environmental damage, poverty, disease through global co-operation on common interests, mutual needs and shared responsibilities.

One major objective of the Agenda 21 is that every local government should draw its own local Agenda 21.



Resources Planning in India



→ To use resources in a planned manner → Uneven distribution of resources

Identification and Inventory of Resources:
Survey, mapping, quantitative estimate and measurement.

Building a Planning Structure: Proper technology, skill and institutional setup

Matching Resource Development Plan with National Development Plan



The History of Colonisation Reveals



- The history of colonisation reveals that rich resources in colonies were the main attractions for the foreign invaders.

Higher level of technological development of the colonising countries



Exploit resources of other regions





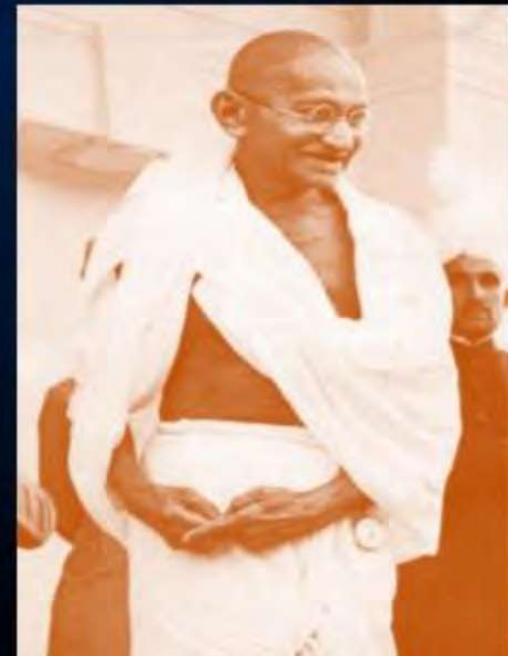
Conservation of Resources



Gandhiji :

- He placed the greedy and selfish individuals and exploitative nature of modern technology as the root cause for resource depletion at the global level. He was against mass production and wanted to replace it with the production by the masses.

"There is enough for everybody's need and not for any body's greed."



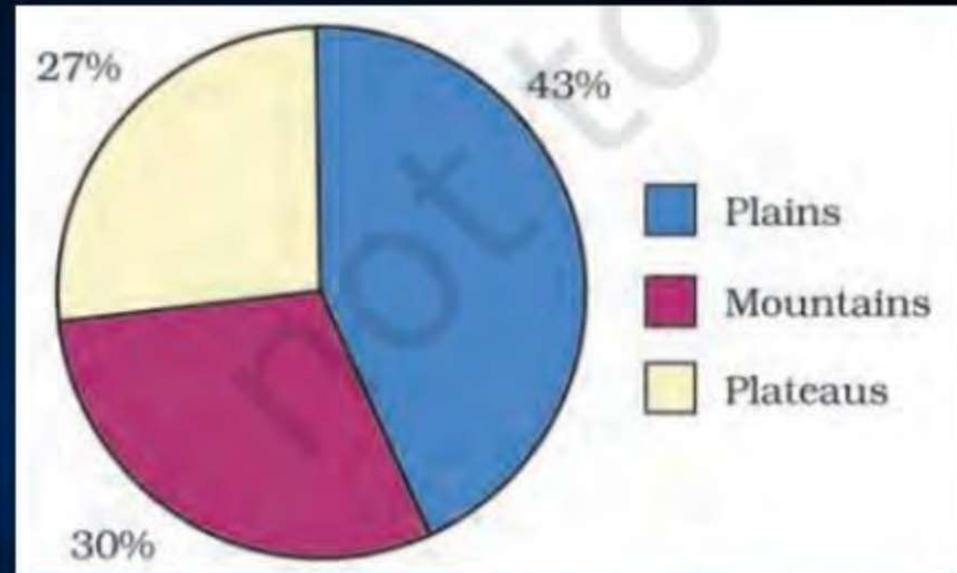




Land Resources

We live on land, we perform our economic activities on land and we use it in different ways. Thus, land is a natural resource of utmost importance. It supports natural vegetation, wild life, human life, economic activities, transport and communication systems. However, land is an asset of a finite magnitude.

land \rightarrow
limited

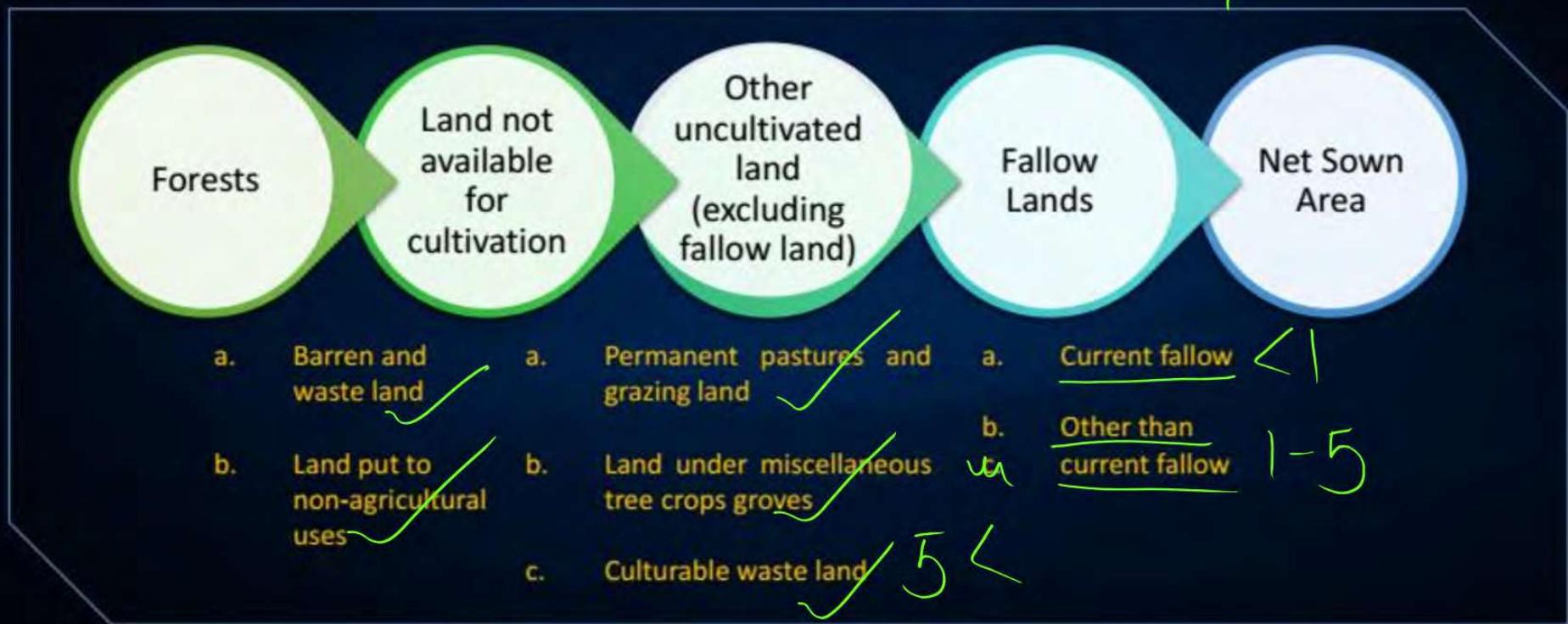




Land Utilisation



Gross cropped area = Area sown more than once in an agricultural year + NSA





Forest



- The forest cover of the country is less than the prescribed 33% of the total country's land. Forests occupy about 23.81% of the total land surface in India.
- The total net sown area of India is 46.24% of the total land in the country.
- The net sown area differs from state to state.
- While in Punjab and Haryana, the net sown area is more than 80% of the total land in the state, it is less than 10% in Arunachal Pradesh, Mizoram, Manipur and the Andaman and Nicobar Islands. 3.38% of the total land is used for grazing, while the remaining lands are fallow and waste lands.



Land



- The land under forests has not increased much because of the expansion of agricultural lands, construction of large dams and the building of highways and construction of buildings in areas adjacent to forest lands.
- Forest area in the country is far lower than the desired 33 per cent of geographical area, as it was outlined in the National Forest Policy (1952).
- A part of the land is termed as waste land and land put to other non-agricultural uses.
- Continuous use of land over a long period of time without taking appropriate measures to conserve and manage it, has resulted in land degradation.



Land Degradation

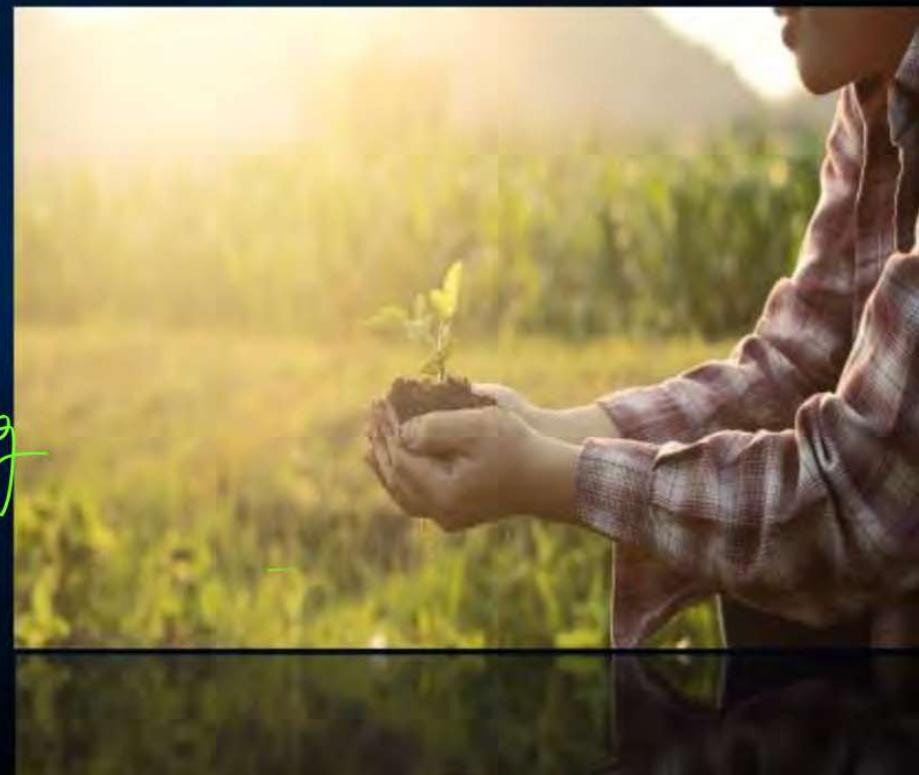
- Deforestation
 - Mining
 - Quarrying
 - Overgrazing
 - Industrial effluents
 - Over-irrigation
- 





Land Conservation

1. Afforestation.
2. Planting of shelter belts of trees and growing of thorny bushes can stabilize sand dunes and check land degradation.
3. Control over mining activities can also contribute to it. overirrigation / overgrazing
4. Disposal of industrial effluents and wastes after treatment can reduce land and water degradation in industrial and suburban areas.

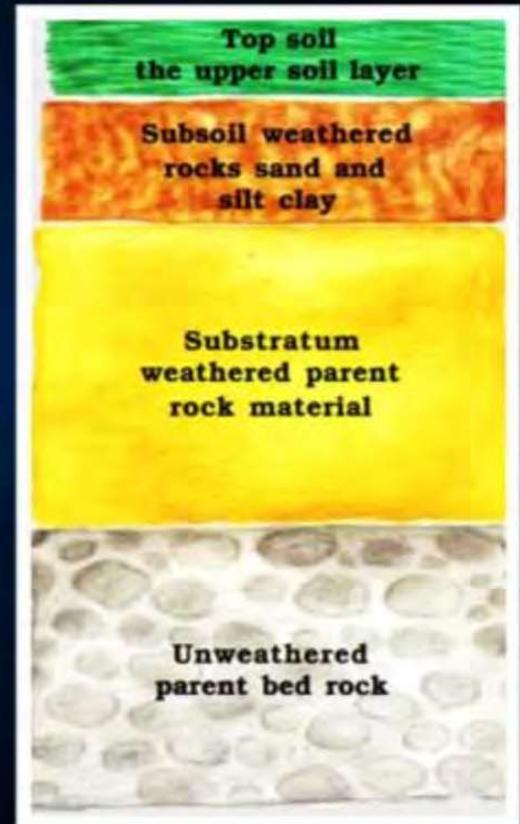




Soil as a Resource



- Soil is the most important renewable natural resource.
- It is the medium of plant growth and supports different types of living organisms on the earth.
- Takes millions of years to form soil upto a few cm in depth.
- Various forces of nature such as change in temperature, actions of running water, wind and glaciers, activities of decomposers etc. contribute to the formation of soil.





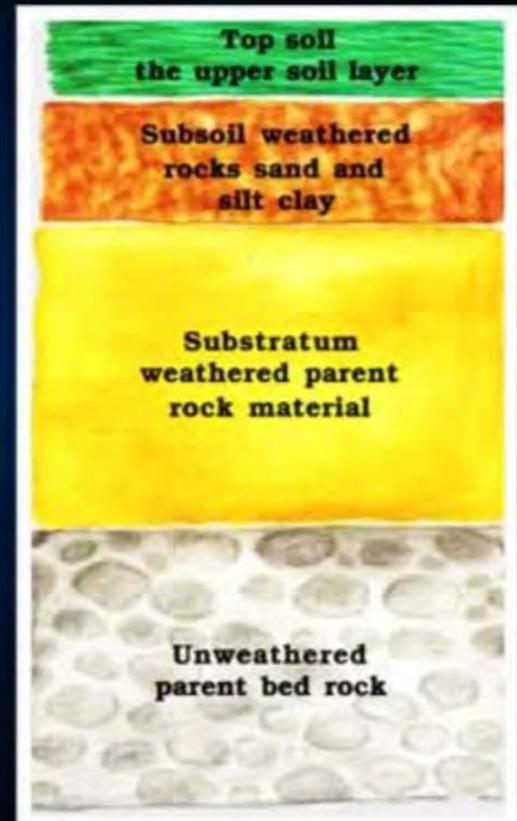
Soil as a Resource



- Parent rock or bedrock, climate, vegetation and other forms of life and time are important factors in the formation of soil.
- Soil also consists of organic (humus) and inorganic materials.

6 soil types

- Alluvial
- Black
- Red & Yellow
- Laterite
- Arid
- Forest/Mountainous





Alluvial Soils



- These have been deposited by three important Himalayan river systems – The Indus, the Ganga and the Brahmaputra.
- It is also found in Rajasthan, Gujarat and eastern coastal plains particularly in the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri rivers.

Widely found
most fertile





Alluvial Soils



□ Old Alluvial (Bangar):

- The Bangar soil has a higher concentration of kanker nodules than the Khadar.

not very
fertile

Soil Particles
OB

□ New Alluvial (Khadar):

- It has more fine particles and is more fertile than the Bangar.
- Alluvial soils are very fertile.
- These soils contain an adequate proportion of potash, phosphoric acid and lime, which are ideal for the growth of sugarcane, paddy, wheat and other cereal and pulse crops.





Black Soil



- Regur soils or Black cotton soil.
- **Formation:** climatic condition along with the parent rock material
- Soil is typical of the Deccan trap (Basalt) region spread over northwest Deccan plateau and is made up of lava flows





Black Soil



- They cover the plateaus of Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chhattisgarh and extend in the south east direction along the Godavari and the Krishna valleys.
dough
- The black soils are made up of extremely fine i.e. clayey material and well-known for their capacity to hold moisture.
- Black soil is nutrients rich and contains calcium carbonate, magnesium, potash and lime.



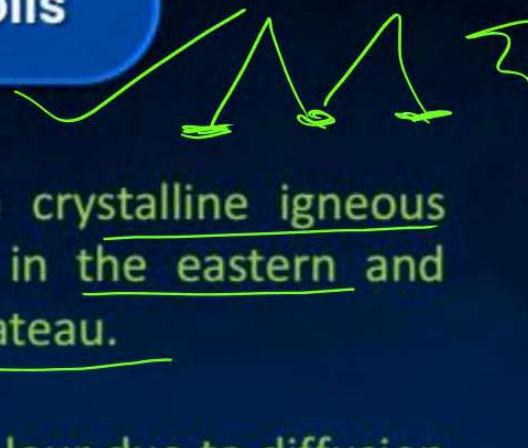
Lacks Phosphoric content.



Red and Yellow Soils



- This type of soil develops on crystalline igneous rocks in areas of low rainfall in the eastern and southern parts of the Deccan plateau.
- These soils develop a reddish colour due to diffusion of iron in crystalline and metamorphic rocks. It looks yellow when it occurs in a hydrated form.
- Found in parts of Odisha, Chhattisgarh, southern parts of the middle Ganga plain and along the piedmont zone of the Western Ghats.

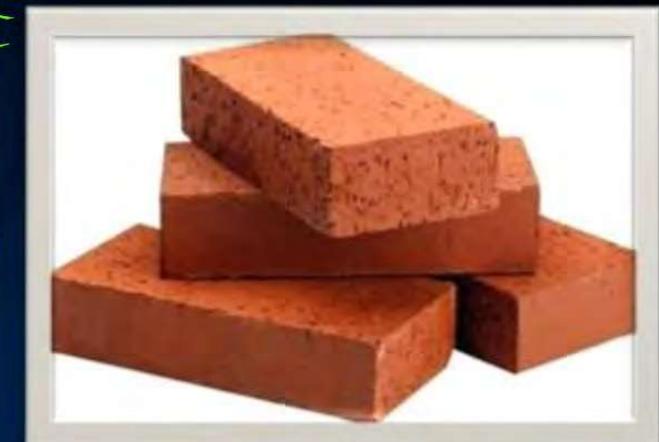




Laterite Soil

→ Latin word
Latērī = Brick

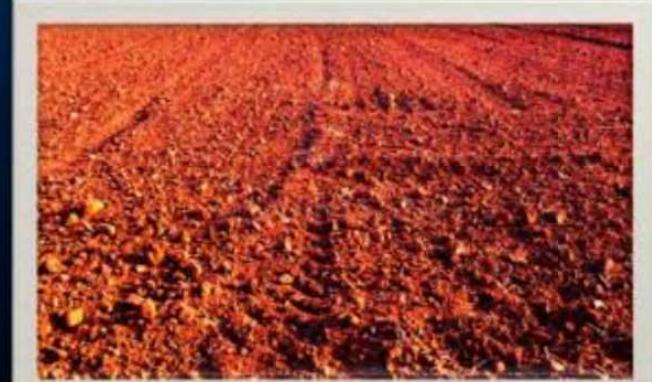
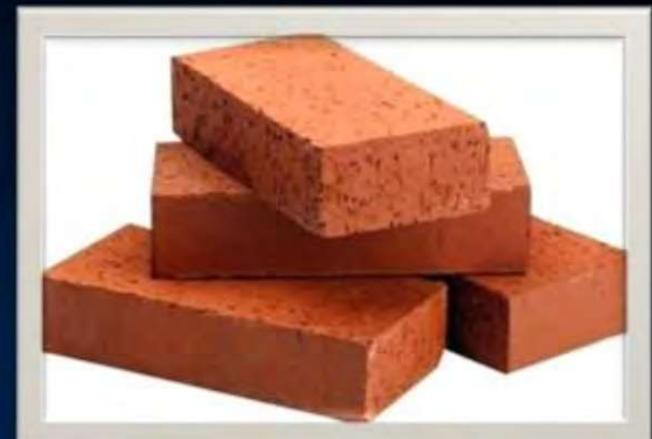
- The laterite soil develops under tropical and subtropical climate with the alternate wet and dry season.
- This soil is the result of intense leaching due to heavy rain.
- Lateritic soils are acidic in nature and generally deficient in plant nutrients.





Laterite Soil

- Found mostly in Southern states, Western Ghats region of Maharashtra, Odisha, some parts of West Bengal and North-east regions.
- The soil supports deciduous and evergreen forests but humus poor.
- This soil is very useful for growing tea and coffee.





Arid Soils

- Arid soils range from red to brown in colour.
- This soil is generally sandy in texture and saline in nature.
- In some areas, the salt content is very high and common salt is obtained by evaporating the water.





Arid Soils

- The lower horizons of the soil are occupied by Kankar because of the increasing calcium content downwards.
- The Kankar layer formations in the bottom horizons restrict the infiltration of water.





Forest Soils

Mountainous Soil



- These soils are found in the hilly and mountainous areas.
- The soil texture is loamy and silty in valley sides and coarse grained in the upper slopes.
- In the snow-covered areas of Himalayas, these soils experience denudation and are acidic with low humus content. The soil is fertile on the river terraces and alluvial fans.





Soil Erosion



- The denudation of the soil cover and subsequent washing down is described as soil erosion.

Causes:

- Human activities - deforestation, over-grazing, construction and mining etc
- natural forces - wind, glacier and water lead to soil erosion.
- The running water cuts through the clayey soils and makes deep channels as gullies. The land becomes unfit for cultivation and is known as bad land.
- When water flows as a sheet over large areas down a slope and the topsoil is washed away, it is known as sheet erosion.
- Wind blows loose soil off flat or sloping land known as wind erosion.

① Gully erosion

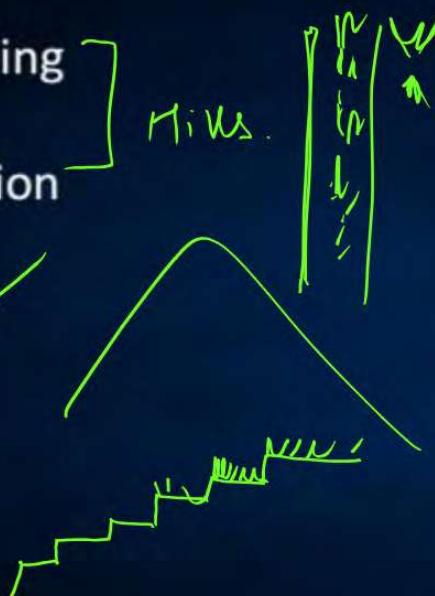
② Sheet erosion

③ Wind erosion



Soil Conservation

- Contour ploughing
- Terrace cultivation
- Strip cropping
- Shelter belts





Homework



Q. Agend 21

Q) Land Degradation & conservation

Q) Soil Erosion / Types of Soil Erosion / Conservation