

What is soil erosion?

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

There are two causes of Soil erosion

- A. Natural Factors.
- B. Human Factors.



Soil erosion by running water



Soil erosion by wind

Rills and gully erosion

Types of soil erosion

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



- 2) **Badlands:** The land becomes unfit for cultivation and is known as **bad land**.

Ravines: In the Chambal basin such lands are called **ravines**.



Badlands



Ravines of Chambal basin

Types of soil erosion

- 3) **Sheet Erosion:** Sometimes water flows as a sheet over large areas down a slope. In such cases the top soil is washed away. This is known as **sheet erosion**.



- 4) **Wind erosion:** Wind blows loose soil off flat or sloping land known as **wind erosion**.



Match the given photos with appropriate factor

Human factor in soil erosion

- a. Deforestation,
- b. Over-grazing,
- c. Construction activities,
- d. Mining activities.
- e. Defective methods of farming such as ploughing in a wrong way i.e. up and down the slope.



Problems caused by soil erosion:

1. Loss of valuable topsoil.
2. Burying valuable topsoil.
3. Damage to fields.
4. Plant productivity decline.
5. Desertification.



Methods of Soil conservation

- i. **Contour Ploughing:** Ploughing along the contour lines can decelerate the flow of water down the slopes.



Carefully observe the difference between the two.

- ii. **Terrace Farming:** Steps can be cut out on the slopes making terraces. Terrace cultivation restricts erosion. Western and central Himalayas have well developed terrace farming.



Methods of Soil conservation

- iii. **Strip Farming:** 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.



Can you see the Strips?

- iv. **Shelter Belts:** Planting lines of trees to create shelter also works in a similar way. Rows of such trees are called shelter belts. These shelter belts have contributed significantly to the stabilisation of sand dunes and in stabilising the desert in western India.



Observe the trees in the background.
Why are they planted there?

Recap! What is soil Erosion?

What are the 4 main causes of soil erosion?

- **Overgrazing** – too many animals eat all the grass
- **Up and Down Ploughing** – Water runs down the furrows
- **Deforestation** – trees provide protection and hold the soil together
- **Soil exhaustion** – soils are over-used and can grow no more

