

CLASS 11

DATE- 29.01.22

Geography

### **Soil Erosion:**

The destruction of the soil cover is described as soil erosion.

- The soil forming processes and the erosional processes of running water and wind go on simultaneously. But generally, there is a balance between these two processes.
- The rate of removal of fine particles from the surface is the same as the rate of addition of particles to the soil layer.
- Wind and water are powerful agents of soil erosion because of their ability to remove soil and transport it.
- Wind erosion is significant in arid and semi-arid regions.
- In regions with heavy rainfall and steep slopes, erosion by running water is more significant.
  - Water erosion which is more serious and occurs extensively in different parts of India, takes place mainly in the form of sheet and gully erosion.
  - Sheet erosion takes place on level lands after a heavy shower and the soil removal is not easily noticeable. But it is harmful since it removes the finer and more fertile top soil.
- Gully erosion is common on steep slopes. Gullies deepen with rainfall, cut the agricultural lands into small fragments and make them unfit for cultivation.
- A region with a large number of deep gullies or ravines is called a bad land topography. Ravines are widespread, in the Chambal basin. Besides this, they are also found in Tamil Nadu and West Bengal.
- The country is losing about 8,000 hectares of land to ravines every year.

- Deforestation is one of the major causes of soil erosion. They also add humus to the soil by shedding leaves and twigs.
- A fairly large area of arable land in the irrigated zones of India is becoming saline because of over irrigation. The salt lodged in the lower profiles of the soil comes up to the surface and destroys its fertility.
  - Chemical fertilisers in the absence of organic manures are also harmful to the soil. Unless the soil gets enough humus, chemicals harden it and reduce its fertility in the long run.
  - This problem is common in all the command areas of the river valley projects, which were the first beneficiaries of the Green Revolution.
  - A fairly large area of arable land in the irrigated zones of India is becoming saline because of over irrigation. The salt lodged in the lower profiles of the soil comes up to the surface and destroys its fertility.
  - Chemical fertilisers in the absence of organic manures are also harmful to the soil. Unless the soil gets enough humus, chemicals harden it and reduce its fertility in the long run.
  - This problem is common in all the command areas of the river valley projects, which were the first beneficiaries of the Green Revolution.
  - According to estimates, about half of the total land of India is under some degree of degradation.