Soil conservation

March 5, 2021

- Soil conservation is the prevention of loss of the top most layer of the soil from erosion or prevention of reduced fertility caused by over usage, acidification, salinization or other chemical soil contamination.

Soil Conservation Methods

Crop Rotation

- In many parts of the country, monocropping is practised throughout the year. Growing the same crop year after year will exhaust the soil of certain nutrients making it less and less fertile every year.
- Crop rotation is a practice in which different crops are grown every year, on the basis of rotation.
- By growing different crops each year, the soil gets time to accumulate the lost nutrients which can restore its quality/fertility.
- For instance, wheat consumes nitrogen while potato consumes potassium. By rotating these crops year on year, a balance in the proportion of nitrogen and potassium can be maintained.
- Similarly, by growing leguminous plants such as pulses, nitrogen content in soil can be restored.

Strip Cropping

- In this, crops are cultivated in alternate strips which are parallel to each other on the same piece of land.
- Different crops are grown on the same piece of land, usually with different growing periods so that they can be harvested at different times.
- This can ensure that at no point of time the land is lying completely fallow. This is necessary to prevent

the action of wind and heat which can erode the top soil off a barren land.

- If the crops grown are of different heights, the taller ones can break the speed of wind blowing over the soil while the shorter ones can control the flow of water. Together, they can strengthen the soil cover from getting eroded.

Mulching

- This involves covering the soil layer in between the crops with organic matter such as leaves, grass clippings, straw etc.
- Apart from protecting the soil from erosion, mulching also helps in conserving the soil moisture which will reduce the need for frequent watering.
- Mulching also adds nutrients to the soil by way of slow decomposition of the organic matter.
- Other benefits of mulching include maintaining the soil temperature, prevents weed growth and compaction of soil due to heavy rains.

Contour Ploughing

- On sloped areas, ploughing of land must be done across the contours, at right angles to the slope.
- This will prevent the formation of gullies along the slopes which could erode the top soil through runoff.
- This also helps in ensuring that the crops along the slopes get adequate water.

Terrace Farming

- This is practised on hill slopes which do not have enough flat terrain for growing crops.
- In this, the hills slopes are converted into horizontal terraces of regular intervals which allow the cultivation of crops.
- They also reduce the surface runoff along the slopes and

help in preventing soil erosion.

Contour Bunding

- In this, a series of checks are put in place across the slope of a hilly surface.
- The bunds divide the entire slope into numerous smaller segments which help in reducing the runoff along the slopes, ensuring greater absorption of rainwater on the slopes thus controlling soil erosion.
- Sometimes, the bunds can be in the form of retaining walls.