

Erosion Control

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Principles of Soil and water Conservation

- **To Check the runoff water before its velocity reaches to erosive level**
 - **To reduce the slope of land**
 - **To reduce the length of slope**
 - **To check the path of water flow**

- **To increase the path of flow of runoff water**

- **To avoid the straight flow**

- **To check the path of water flow**

- **To reduce the quantity of runoff water**

- **To store the runoff water**
- **To facilitate water to infiltrate in the ground**
- **Water should flow slowly for a longer period**
- **Water should infiltrate in the ground**

- **To force rain water to stay in the watershed area for a longtime**
- **To utilise the land according to its capability**
- **Surface runoff should leave watershed with safe velocity from safe passage.**

Soil and water Conservation Measures

- Engineering Measures**
- Vegetative Measures**
- Social aspects**

Engineering Measures

For Agricultural lands

- Land Levelling
- Marginal bunding
- Contour bunding
- Graded bunding
- Bench Terracing

For Non-agricultural lands

- **Contour Trenching**
- **Stone bunding**
- **Diversion drains**

Drainage Line Treatment

- **Gully Plugs/Loose boulder checks**
- **Gabions**
- **Geojute**
- **Stopdams/Anicuts/Checkdams**
- **Earthen Dams**
- **Drop spillways**

Water harvesting structures

- **Stopdams/Anicuts/Checkdams**
- **Earthen Dams**
- **Farm Ponds**
- **Ghools**
- **Weirs**

Structures in streams and rivers

- **Spurs**
- **Retards**

Vegetative Measures

For Agricultural lands

- **Crop Rotation**
- **Contour Farming**
- **Strip Cropping**
- **Mulching**
- **Mixed Cropping**
- **Agro-forestry**
- **Green Manuring**

For Non-agricultural lands

- **Brush wood dam**
- **Log Dam**
- **Vegetative Barrier**
- **Tree Plantation**
- **Grass Plantation**

Social Aspects

- **Rotational Grazing**
- **No tree felling commitment**
- **Peoples Participation**
- **Stop Jhoom Cultivation**

Contour cropping



Strip cropping



Inter cropping

Mixing crops such as in *strip cropping* can provide nutrients and reduce erosion.



Mulching





Green Mulching:



Mulching:



Stubble mulching



Stubble Mulching:



Contour Bunds



Stone bunding:



Contour Ploughing



Bench Terraces:



Bench Terraces:

