

# **PROTECTIVE MEASURES FOR NON-ARABLE LANDS**

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# **PROTECTIVE MEASURES FOR NON-ARABLE LANDS**

## **Soil degradation**

**Appreciable loss of productivity and lowers the current and/or potential capacity of soil to produce goods /services**

## **Factors of degradation**

- ❖ Deforestation of lands**
- ❖ Uncontrolled grazing**
- ❖ Hazardous mining practices**
- ❖ Surface run-off along the slope**

## **Protective soil and water conservation measures**

**In non-arable lands, water is held in suitable trenches, pits or different suitable land configurations – improves the establishment and growth of grass, trees, fruit plants..etc**

**Mechanical or vegetative measures are used to restore degradation**

**Protective enclosures themselves can promote the regeneration of non-arable lands**

## **Protective soil and water conservation measures**

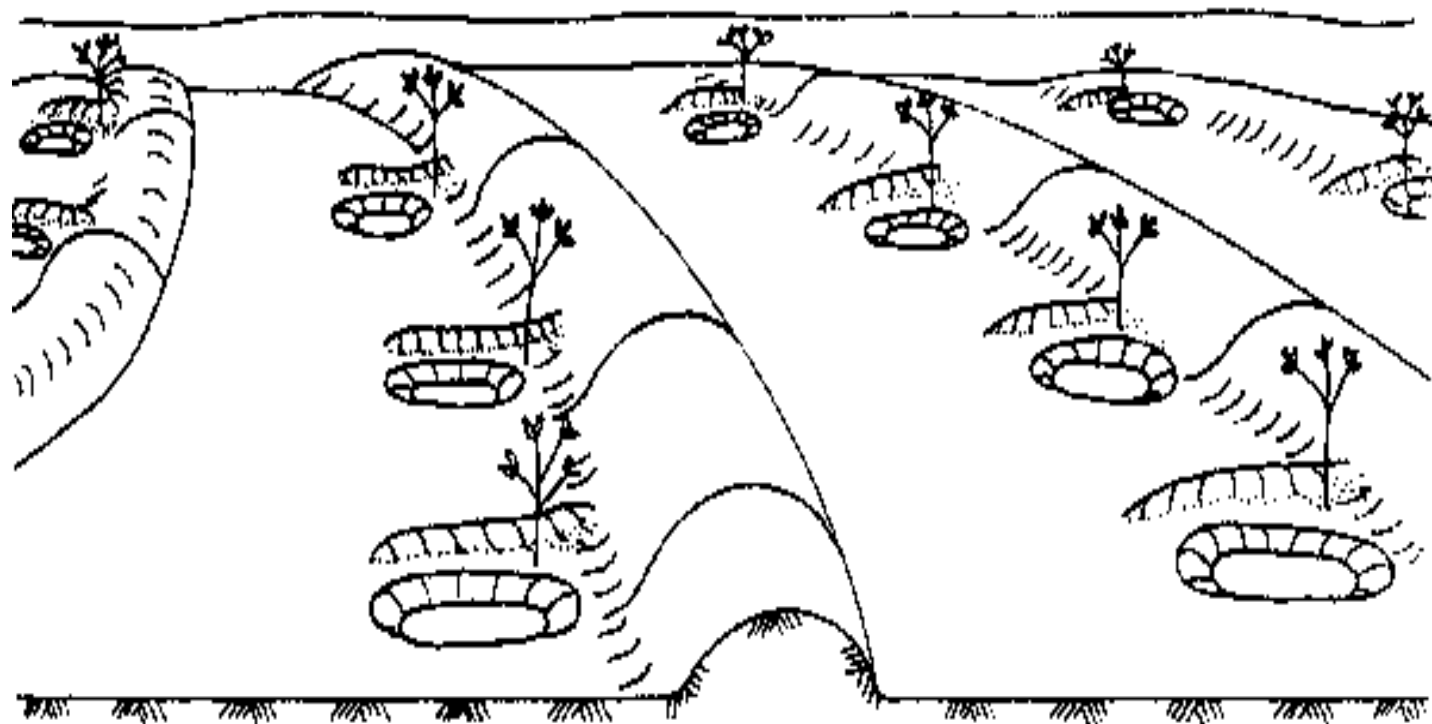
### **Catch pits / dug -outs**

**Large dug out pits situated at waterways to trap runoff**

**It is adoptable in rocky areas**

**Pits are planted with suitable trees**

**Both mechanical and vegetative measure**



## **Protective soil and water conservation measures**

### **Pits with crescent**

**Crescent shaped bunds formed across the slope with a vegetative pit inside**

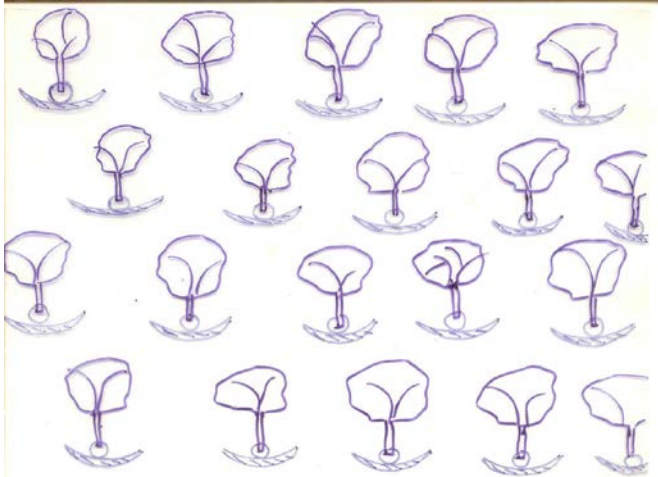
**Bunds control run –off and soil erosion**

**Facilitate the development of vegetative cover**

**This is a mechanical measure**

# Protective soil and water conservation measures

## Pits with crescent



## **Protective soil and water conservation measures**

### **Contour trenches / ditches**

**Trapezoidal / V-shaped dug out trenches made along contours to hold rain water for conservation**

**They can be either staggered or continuous at 5 to 10m**

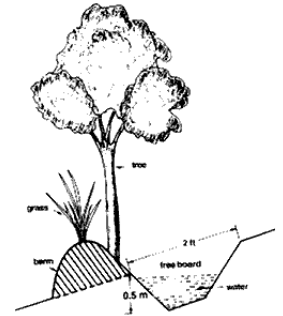
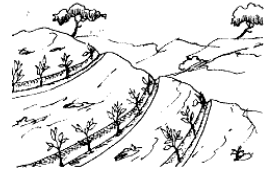
**Trenches are planted with suitable trees**

**This is a mechanical as well vegetative measure**



# Protective soil and water conservation measures

## Contour trenches / ditches



## **Protective soil and water conservation measures**

### **Diversion drains**

**Individually designed channel placed across the slope to intercept and divert surface run-off and to save arable lands from being damaged due to over flow from non-arable lands**

**Suitable vegetative species is planted in the trapezoidal channel**

**Adoptable in all areas irrespective of soil & climatic conditions**

**This is a mechanical measure**

# Protective soil and water conservation measures

## Diversion drains



## Protective soil and water conservation measures

### Gabion structures

**Dams made of wire-woven baskets filled with stones constructed across non-arable lands to control silt erosion in steep slopes**

