



Bench Terraces

Bench terraces consist of a series of beds running across a slope at vertical intervals, supported by steep banks or risers (walls or bunds). The flat beds created by bench terraces enable the cultivation of crops on medium to steep slopes. The technology is highly suitable for Semi-arid to humid regions of rainfall, 700 mm or more; medium to steep slopes (12- 47%) soil depth greater than 50 cm; and areas with no gullies, or stones.



Bench terracing



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SOIL AND WATER CONSERVATION FOR BANANA



Introduction

Soil and water conservation aims at maintaining or enhancing the productive capacity of the land including soil, water and vegetation in areas prone to degradation through;

Some methods of conservation for banana field.

Mulching is a practice of applying a layer of organic material to the soil surface between rows of growing crops. Its main function is to conserve soil moisture by improving on soil holding capacity, improve soil fertility, suppress growth of weeds, prevent soil erosion from heavy rains and strong winds and maintain an even soil temperature.



Mulching in a banana field

Furrow and Ridges

Furrow irrigation uses furrows between planted ridges. The soil is prepared into vertical channels (furrows) and planting mounds. Water moves into each furrow, running down the furrow's length and seeping into the soil at the root level.



Bananas grown using furrows and ridges

Zai Pits

Zai pits are small basins in which the seeds of annual or perennial crops are planted. The pits are then filled with mulch, manure or good soil to increase soil fertility and the capacity of the soils to capture water. Zai pits are constructed circular, square or rectangular depending on the soil depth, plant density and amount of organic manure available. This low cost and environment friendly technology is very efficient in protecting seeds and soil organic matter from being washed away from water runoff. This intervention is most suitable for flat or gently sloped terrains (0-5%) with a precipitation range of 350-600 mm/yr. Banana crop has successfully been adopted in arid and semi-arid ecosystems using Zai pits.



Bananas grown using Zai pits

