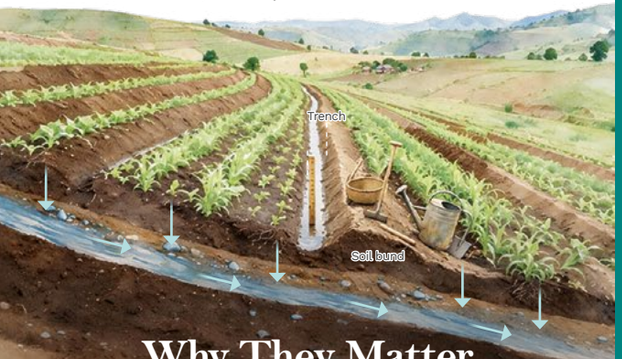
# What Are Soil Bunds and Trenches?

These are **embankments** or **shallow trenches** built along the contour (across the slope) to slow runoff, reduce erosion, and improve water infiltration.




## Why They Matter

A farmer's guide to land protection.

**Reduce soil loss during heavy rains**



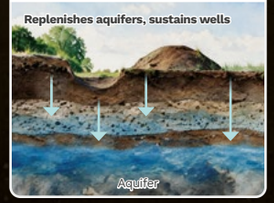

**Prevent gullies**




**Improve crop yields through better moisture**




**Recharge groundwater**



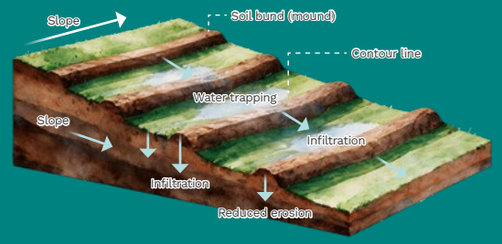

**Support regeneration of vegetation**




# Types of trenches and soil bunds

### 1. CONTOUR SOIL BUNDS

**Raised Soil Mounds:** Embankments built along contour lines to slow runoff, reduce erosion, and trap water in fields.




### 2. FANYA JUU & FANYA CHINI BUNDS ('do it up' and 'do it down')

**FANYA JUU (UPHILL BUND)**

**FANYA CHINI (DOWNHILL BUND)**

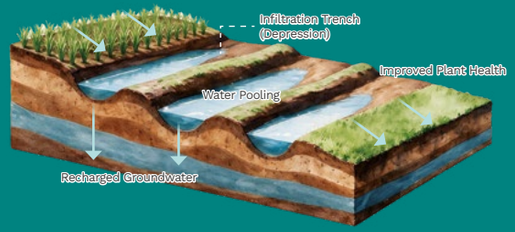



**Ditches with Soil Thrown Uphill:** The excavated soil forms a bund on the higher side of the ditch, promoting terrace formation and trapping water.

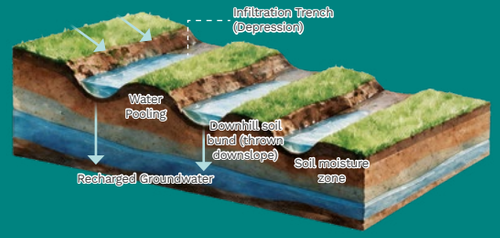
**Ditches with Soil Thrown Downhill:** The excavated soil forms a bund on the lower side of the ditch, primarily for water harvesting in the ditch and erosion control.

### 3. INFILTRATION TRENCHES

**Shallow Depressions to Hold:** Horizontal, wide depressions designed to capture surface runoff and allow it to infiltrate the ground, replenishing aquifers.




**Note:** Bund position is key – it is upslope from the ditch, trapping water before it enters and holding more in a pool.




# How to Construct Trenches / Soil Bunds (Step-by-Step)

## Step 1: Identify the Contour







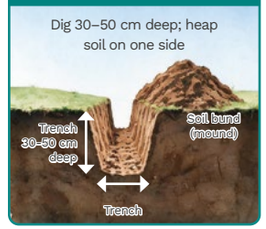






## Step 2: Excavate the Trench or Bund

**For soil bunds**

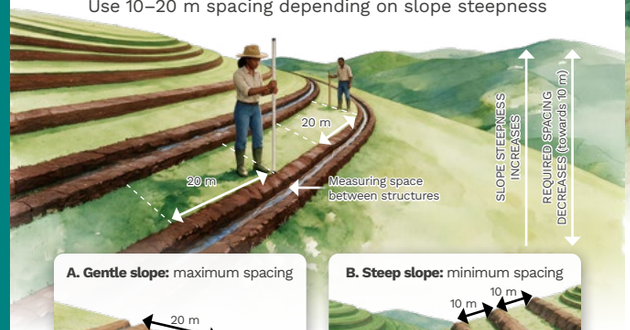



**For infiltration trenches**

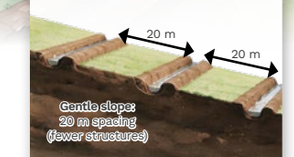



## Step 3: Space the Structures

Use 10–20 m spacing depending on slope steepness

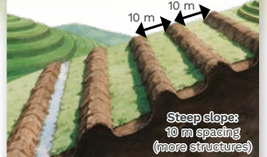



**A. Gentle slope:** maximum spacing




Allows runoff control with minimal cost and earthwork

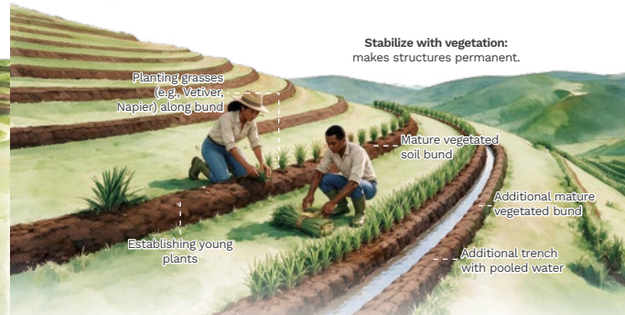
**B. Steep slope:** minimum spacing




Crucial to break the slope and prevent runoff velocity

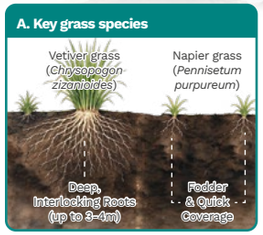
## Step 4: Stabilize with Vegetation

Plant grasses (vetiver, Napier, natural riverine grasses) along the bund

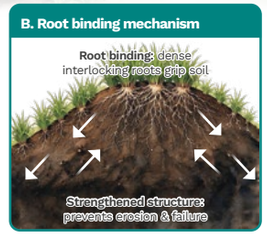



**THESE BIND THE SOIL AND STRENGTHEN THE STRUCTURE**

**A. Key grass species**

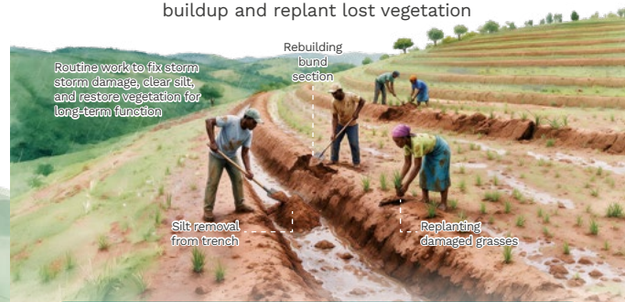



**B. Root binding mechanism**




## Step 5: maintain regularly

After heavy rains, repair broken sections, remove silt buildup and replant lost vegetation




**A. Post-storm assessment**




**B. Repair & revegetation procedures**



# Community Roles for Management

### WATERSHED COMMITTEE

Coordinate **contour mapping days**, tool banks, and equitable placement across holdings (avoid "gaps" that accelerate flow).




### LABOR GROUPS

Organize **collective digging/repair** ahead of the long rains; assign **block stewards** for routine checks after storms.




### FARMERS ADJACENT TO ROADS/DRAINS

Keep **inlets/outlets** clear; connect to **grassed waterways** rather than open gullies.




### EXTENSION/SCHOOLS

Demonstrate **A frame use**, runoff plots, and simple rain gauges for learning.




# What NOT to Do





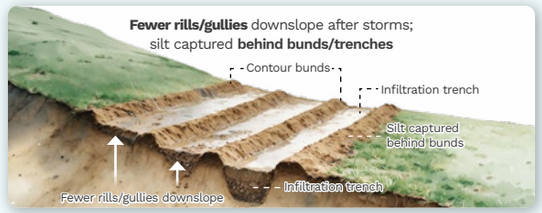


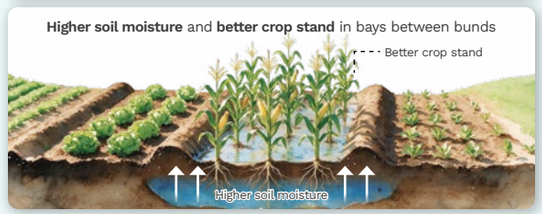






# Community Success Indicators





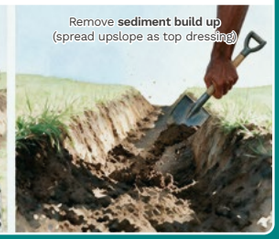





# Monitoring & Maintenance Checklist

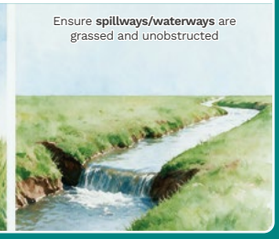
**After every heavy rain**



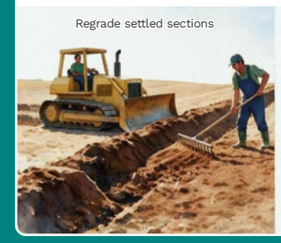



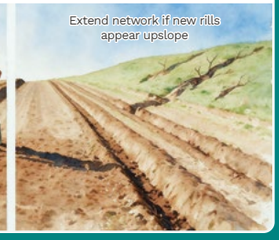

**Monthly in rainy season**




**Dry season**

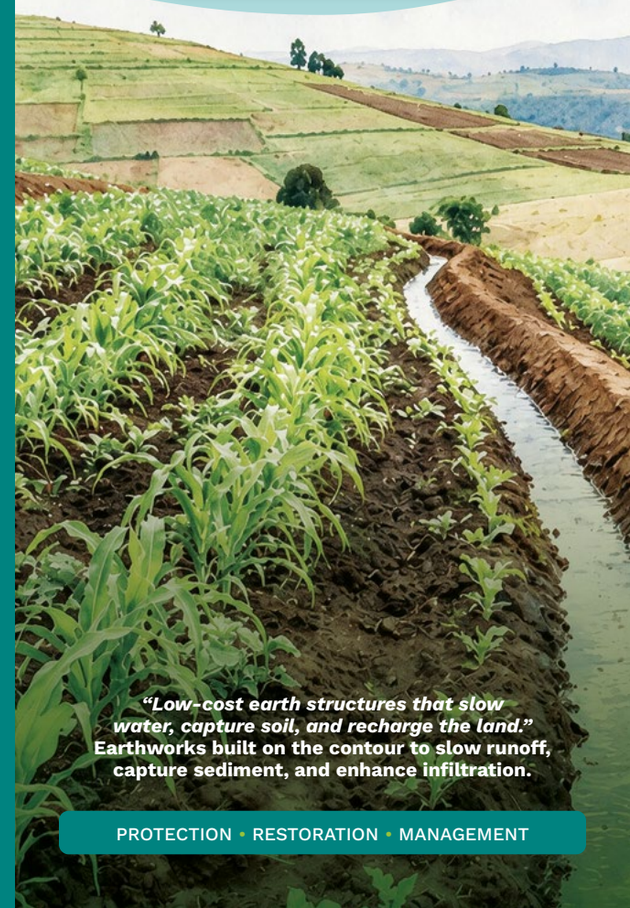



The Nature Conservancy

# Community Practical Field Guide for Agricultural BMPs

## Trenches / Soil Bunds



***"Low-cost earth structures that slow water, capture soil, and recharge the land."***
**Earthworks built on the contour to slow runoff, capture sediment, and enhance infiltration.**

PROTECTION • RESTORATION • MANAGEMENT