ALWAYS REMEMBER

• Add more nutrients to the soil after crop harvesting

• Protect soil from erosion and do not burn crop residues

• Incorporate manure and fertilizers into the soil

• Avoid over irrigation

• Do not dump non degradable waste materials on farm land.
Introduction

Low soil fertility leads to low food and cash crop as well as fodder productivity. Causes of low soil fertility have to be understood as well as ways to improve it to enhance plant growth.

Causes of low soil fertility

1) Soil nutrients mining
Harvesting and removal of crops, trees, livestock sand, stones and other resources removes nutrients from farms.

2) Soil erosion
This is removal of top soil by water run-off and wind. Water erosion is the most common and is worsened by cultivation in valley bottoms and steep areas.

3) Poor farming Practices
Burning of farm crop residues leads to washing away of nutrient rich ashes by rain water and blowing by wind.

Improper timing and wrong fertilizer type application cause change in soil chemical properties.

Non application of organic nutrient inputs such as cattle, goat/sheep and poultry manure leads to low soil fertility while ploughing up and down the slope encourages soil erosion.

4) Leaching of plant nutrients
This is the washing away of plant nutrients such as Nitrogen from the crops root zone after heavy rains or over irrigation.

5) Loss of nutrients in gaseous form when exposed to the air
This is common when manure and nitrogen fertilizers are applied and not incorporated into the soil.

6) Contamination by dumping non degradable wastes
Dumping of materials like used engine and cooking oils, plastic and other synthetic wastes, cans, stones, waste cement and many others contaminate the soil. They change the soil’s chemical and physical properties leading to low soil fertility.