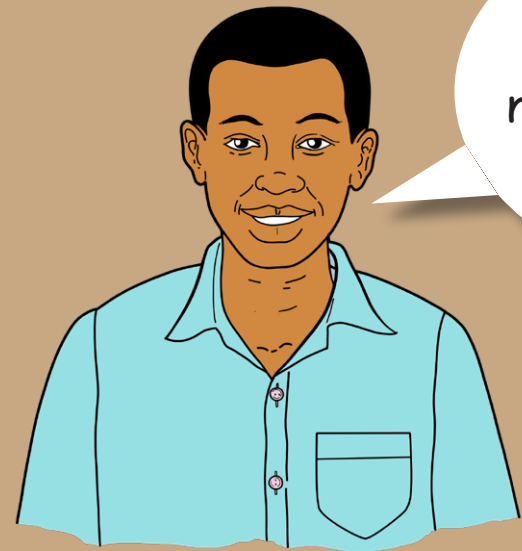
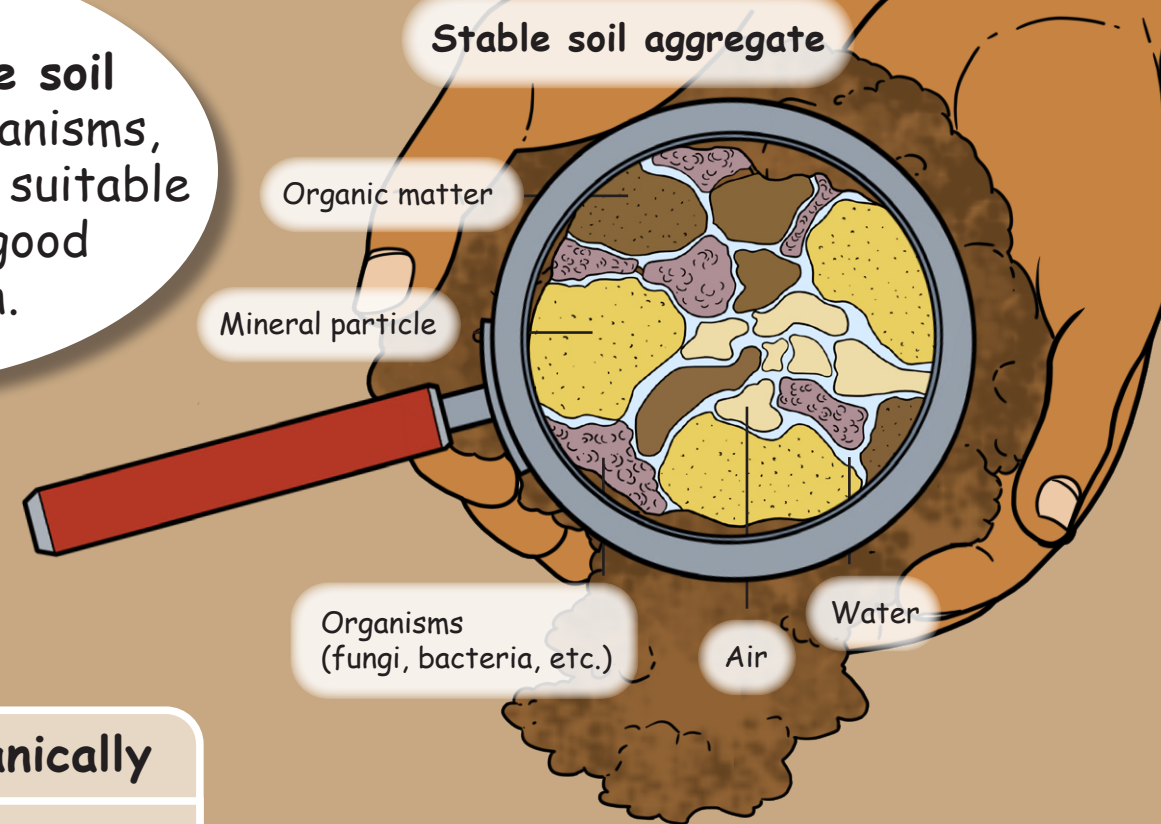


# Soil fertility management in organic farming



A healthy, living and fertile soil has water, air, organisms, nutrients and other suitable conditions for good plant growth.



## Soil organic matter...

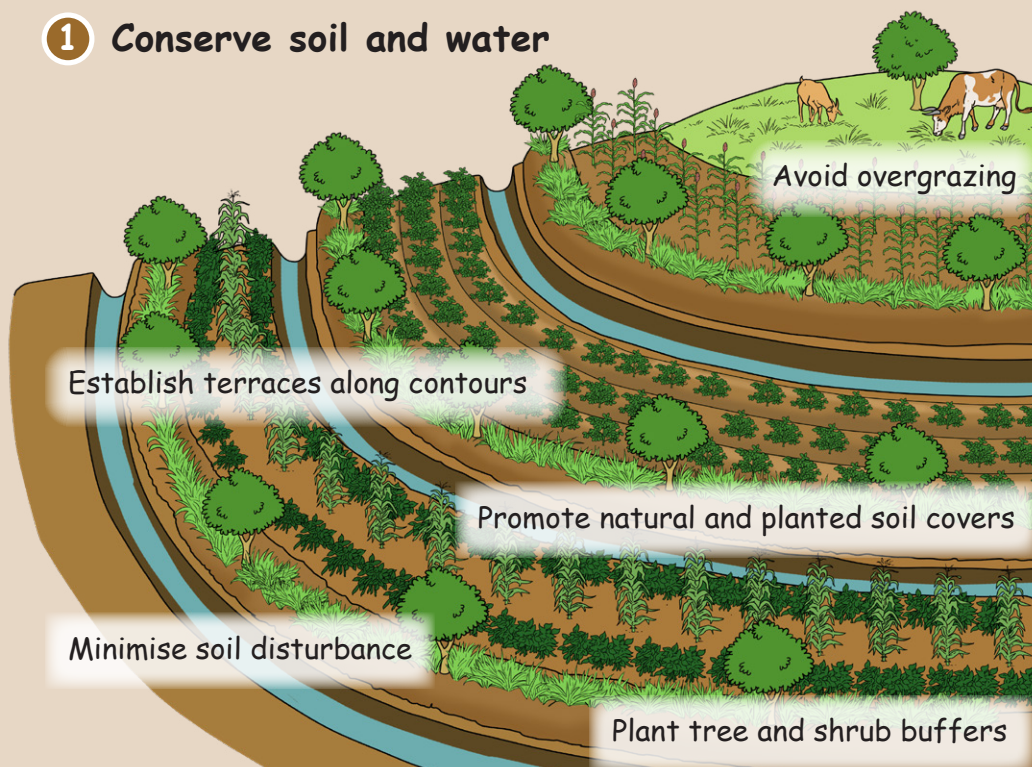
- creates stable soil aggregates and reduces erosion
- promotes diverse and active soil organism populations
- enhances continuous nutrient supply
- can retain a lot of water
- buffers soil acidity

## Beneficial soil organisms...

- transform organic materials into soil organic matter
- release nutrients from organic matter
- glue the soil for better structure
- can fix nitrogen gas from the air for plant use
- can increase phosphorus uptake by plants
- can degrade toxic substances
- can control soil-borne plant pathogens

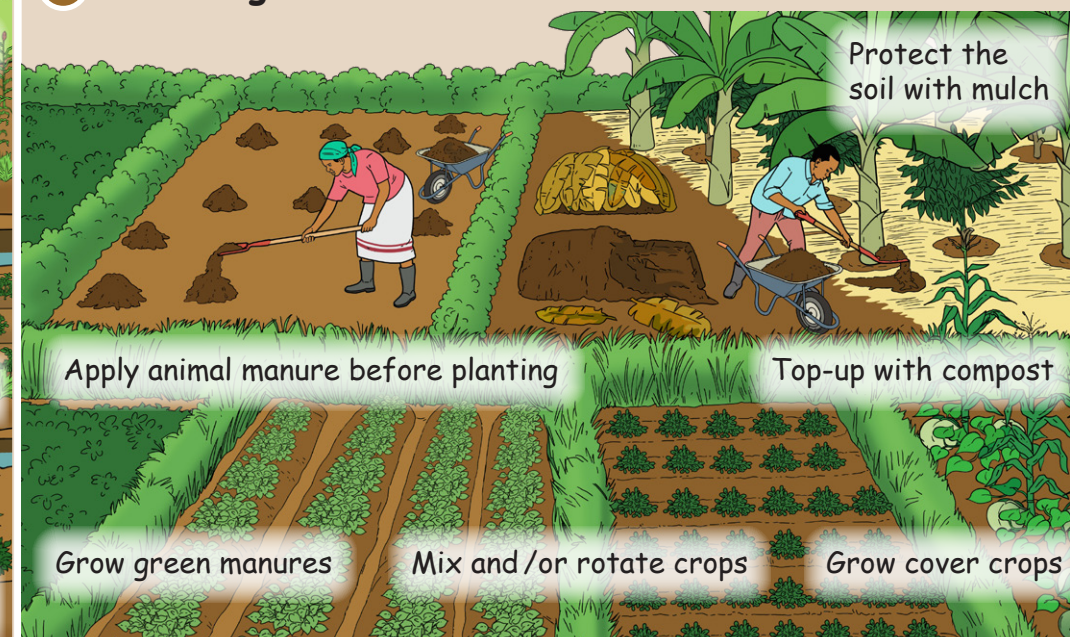
## Three steps to manage soil fertility organically

### 1 Conserve soil and water



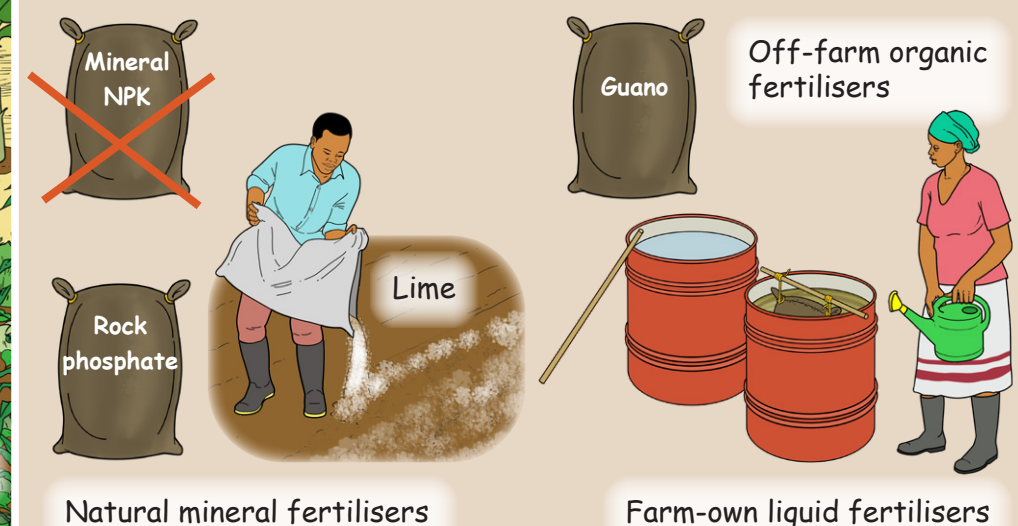
- Protect the soil from extreme weather and erosion
- Reduce the movement of water
- Harvest water and ensure good drainage

### 2 Build organic matter and nutrients



- Promote soil organisms by adding organic matter enriching materials (avoid any contaminated sources e.g. from some industrial wastes)
- Mix and rotate nitrogen fixing shrubs and trees and other agroforestry plants for compost production, mulching, fodder and soil nutrient supply

### 3 Apply other approved fertilisers



- Supplement soil nutrients to avoid deficiencies
- Balance soil pH for optimum plant growth (e.g. apply lime to acid soils)
- Apply microbial fertilisers which stimulate soil fertility