

# STRATEGIES TO ATTAIN AND MANAGE SOIL HEALTH

PRESENTED BY: GRACE MISOI

0725-854-197

[misoi.grace@gmail.com](mailto:misoi.grace@gmail.com)

[adfochange@gmail.com](mailto:adfochange@gmail.com)



In cooperation with



# Introduction

- Healthy soil is the foundation for profitable, productive, and environmentally sound food systems.
- It is important to understand the physical, chemical, and biological components of healthy soil and how to manage them.



In cooperation with



# 1. Nutrient cycling

- This refers to the many pathways through which nutrients are added, removed or changed within the soil.
- Nutrients in the soils are stored in:
  1. Soil solutions
  2. composting
  3. Mineralization
  4. Organic matter
  5. Fermentation



In cooperation with



## 2.Regulation of air and water

Soil is a complex ecosystem where living microorganisms and plant roots bind mineral particles and organic matter together into a dynamic structure that regulates water, air, and nutrients:

- ❖ Macro pores: this are responsible for aeration
- ❖ Microspores : this are responsible for holding and spreading water in the soil



# 3. Management practices

- Reduce soil traffic
- Increase organic matter input
- Use cover crop
- Reduce pesticide use and provide habitat for beneficial organisms
- Encourage farm scaping and biodiversity
- Practice crop rotation



In cooperation with



# summary

Please note that timing, quantities, preparation and availability of nutrients must be done deliberately

Carbon belongs in the soil. Planting of carbon crops as necessary. E.g.. Maize, sorghum, amaranth

**END**