

## Guidelines on Best Practices to Preserve Organic Matter and Moisture Content in Soils

Soil as the main medium for agriculture, the protection and the sustainable utilization of it are significant for the promotion of sustainable production and consumption in Palestine. Jointly developed by the Environmental Quality Authority (EQA) and the Ministry of Agriculture, the Guidelines aims at providing good agricultural practices for the conservation of organic matter and moisture content in soils to minimize the deterioration and the pollution caused by agricultural activities, improve the quality of products, and increase the value added to agricultural production.



A Sustainable Consumption and Production National Action Plan (SDG12.1) was developed in Palestine through nationally owned multi-stakeholder processes. The implementation of the plan's priorities - tourism, housing and construction, agriculture, and food - is on-going through selected projects and initiatives.

### What is GAP?

With a collection of principles and criteria applied, the Good Agricultural Practices (GAP) of production and post-production processes will result in safe and healthy food and safety of workers involved in the process, while taking into account economic, social and environmental sustainability.



### GAP to preserve organic matter and moisture content in soils

The guidelines present the Good Agriculture Practices (GAP) in terms of farm management, soil management, water and irrigation, chemical compounds additions (fertilizers or/and pesticides), tilling systems and use of organic fertilizers.

The target groups are agricultural extension agents (extension staff in Ministry of Agriculture, NGOs and private sector) and farmers. The covered farming pattern extends from home garden to large-scale farmers with large agricultural holdings. It also covers the protected and open irrigated pattern, rainfed agriculture, rangeland and trees and shrubs areas.



SwitchMed Programme is funded by the European Union

### Good soil is composed of

 **30%**  
Clay

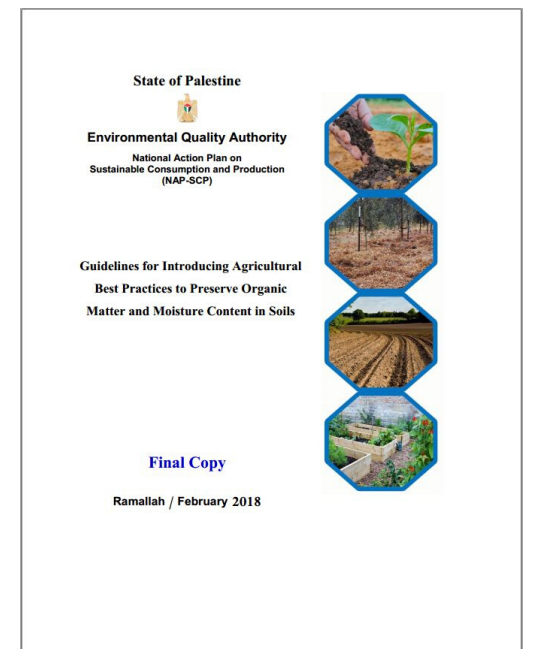
 **15%**  
Sand

 **55%**  
Silt



## Guiding recommendations for extension agents to guide, advise and assist farmers to:

- use of farm registry log and adopt agricultural crop rotation systems;
- conduct periodic soil and irrigation water analysis;
- improve and maintain mulch or vegetation on the soil surface;
- use acidic effect fertilizers, preferably in the form of acid (e.g. phosphoric acid) or Ammonium Sulfate because of the alkalinity (high pH) of Palestinian soil;
- guide and assist farmers to apply the integrated management approach to control pests;
- use minimum tillage and conservation tillage methods;
- select the proper seeds and cultivars based on their characteristics;
- use reliable compost source and qualified organic fertilization.



## Guiding recommendations to farmers to:

- reduce repetitive and excessive plowing that involves mixing organic fertilizers and turn over the soil to avoid soil compaction;
- use of manual weed control or the portable weed cutter to control weed wherever possible;
- use appropriate water harvesting techniques to collect rainwater and increase soil water storage;
- use the best time, during autumn before precipitation in rain-fed agriculture, to add non-decomposing manure and plant residues to fruit trees and vegetable crops;
- improve the watering efficiency in the home gardens;
- avoid using untreated wastewater for irrigation;
- avoid making the preparation process and implementing agricultural and chemical applications near water sources;
- use bio-pesticides composed of environment-friendly organic compounds for pest or weed control.

## UN Environment Programme

UNEP is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment.



The EU-funded SwitchMed programme assists eight countries in the southern Mediterranean to switch to sustainable patterns of consumption and production and supports national and regional stakeholders in achieving productive, circular, and sharing economies in the Mediterranean. [www.switchmed.eu](http://www.switchmed.eu)