FACTSHEET: ORGANIC AGRICULTURE AND WATER

Water: an essential element of agricultural production

Water is an essential building block of ecological and socioeconomic resilience of food systems. Conventional agriculture is a significant and often wasteful user of groundwater, and the chemicals used contaminate ground and surface water bodies. Organic farming systems, in contrast, work to build soil organic matter, which provides several benefits regarding water.

Organic agriculture and sustainable water management

Organic agricultural principles and practices focus on managing water resources responsibly and sustainably. Organic farming systems apply those principles in multiple ways:

- **Improving soil health:** The focus is on building soil's organic matter, making them more fertile and able to retain more water for a longer period. Soils with high levels of organic matter are more resilient to erosion and the resultant loss of topsoil, and to nutrient leaching. They have less need for external inputs and enhanced microbial biodiversity.
- **Using crop cover and rotations:** Planting cover crops, rotating crops and using green manure or mulch enhances the biomass and diversity of soil organisms, which helps to stabilise soil nitrogen. Cover crops increase water capture, reducing water consumption.
- **Enhancing agrobiodiversity:** Maintaining or even enhancing agrobiodiversity on farms helps to improve soil quality and facilitate the capture and cycling of nutrients. It also provides the soil cover needed to improve water infiltration and lower nutrient runoff.
- **Using organic fertilizers and biocontrol agents:** The focus is on using organic manure and applying cultural and biological pest management techniques that have no negative impact on water bodies. Techniques include using pest-resistant crop varieties, understanding pest dynamics and enhancing natural enemies. If chemical pesticides are necessary, only biologically derived substances registered for organic farming are used.
- **Integrated water management:** This approach aims to conserve and recycle nutrients within the farming system, thereby making the most use of the water available and capturing and redirecting it where possible into the fields.

KHSA
Knowledge Hub for Organic Agriculture in Southern Africa

The Knowledge Hub for Organic Agriculture in Southern Africa (KHSA) is part of the Knowledge Centre for Organic Agriculture in Africa (KCOA), a collaborative country-led partnership funded by the German Federal Ministry of Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and non-governmental organisations across Africa. The KCOA aims to scale up adoption of organic farming practices through five knowledge hubs in Africa over a four-year period.

The South African-based **Sustainability Institute** supports project implementation in southern Africa. Activities are focused in Zambia, led by Participatory Ecological Land Use Management (PELUM) Zambia; in Namibia led by the Namibia Nature Foundation (NNF) in collaboration with the Namibian Organic Association (NOA); and in South Africa led by the South African Organic Sector Organisation (SAOSO). The project will extend to Malawi in 2021. The other hubs are implemented by GIZ in North, West and Eastern and Central Africa. For more information about KHSA, contact the Project Director Angela Coetzee on angela@sustainabilityinstitute.net.

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