

Term of reference – Training topics

Water Management for Smallholder farmers

	Session Topic	Session subtopics
<b>Session 1 – Theoretical</b>	Introduction to Climate Change and Agriculture	-Identifying and understanding the various climate-related risks affecting farmers in the local context. -Analyzing the impact of changing weather patterns on crop yields and agricultural practices.
	Introduction to Water Management	-Importance of efficient water management in agriculture. -Introduction to soil-plant-climate-water relationships.
	Irrigation Methods	-Overview of different irrigation methods (surface, subsurface, drip, sprinkler, etc.). -Advantages and disadvantages of each irrigation type. -Matching irrigation methods to soil types.
	Crop Water Requirements	-Understanding the water needs of different crops.
<b>Session 2 – Theoretical</b>	Water Management Techniques	-Drip irrigation design and calculation. -Rainwater harvesting and conservation.
	Climate-Smart Farming Practices	-Integrating climate-smart agriculture techniques.
	Practical Exercise	-Provide farm scenarios with specific crops and soil types. Task participants with creating a detailed irrigation plan considering the farm layout and irrigation needs of each crop.
<b>Session 3 – Theoretical</b>	Soil Health and Moisture Conservation	-Implementing soil conservation practices (cover crops, tillage and non-tillage, and mulching for moisture retention).
	Resource-Efficient Farming	-Efficient use of resources (water, fertilizers, etc.). Introduction to fertigation (integrating fertilization with irrigation). -Practical implementation and equipment used in fertigation.
	Adaptive Management Strategies	-Developing adaptive strategies for changing climate conditions. -Early warning systems for extreme weather events.
	Practical Exercise	-Present participants with different climate scenarios. Have them develop adaptive management strategies tailored to each scenario.
<b>Session 4 – Practical</b>	Practical Session	The practical session will be conducted at one of the farmer plots. The practical session aims to reinforce theoretical knowledge, facilitate hands-on application of acquired skills from the theoretical sessions and guide participants through the applications, installation and maintenance of a drip irrigation system.