

Second training course Jordan Water Harvesting project

Catchment Planning for Water Harvesting and Soil Conservation Interventions in Jordan

1. Objectives

The first course was conducted in September 2023 and focused on catchment hydrology in theory and practice. A survey with the participants identified most common further training needs as:

- a) monitoring and evaluation of desert water harvesting projects,
- b) training for data access and analysis using programming skills,
- c) monitoring and technical solutions for water harvesting.

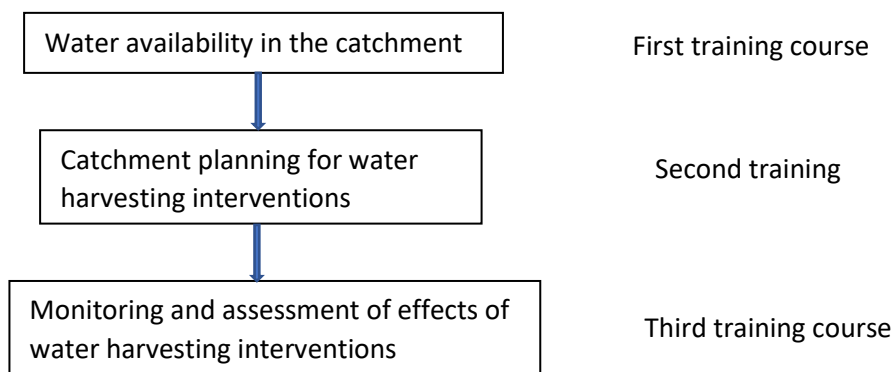
The training package proposed by IHE consists of four themes:

- a) catchment hydrology,
- b) hydrological modelling,
- c) water harvesting interventions,
- d) implications of water harvesting interventions.

Since hydrological modelling was not on the top list of participants, the next training course should focus on water harvesting interventions. Then, follows the third course on monitoring and assessment of water harvesting interventions (operational a separate course on hydrological modelling for dedicated participants).

It was proposed in the project meeting in December 2023 in Jordan that technical skills in use of GIS can be given by Jordanian GIS experts organised by INWRDAM.

With this arrangement, both requirements of the project and requests of the participants will be fulfilled. The links of three training courses can be illustrated in the figure below.



An additional online geographic information system (QGIS) training, organised by IHE, was held in April 2024 in preparation for the second training module.

The objectives of the second training course have been defined as:

- Gain insights on different types of water harvesting structures and soil conservation measures in a catchment;

- Perform data processing and interpretation
- Conduct suitability mapping for interventions at the catchment scale;
- Learning from water harvesting structures in Jordan;
- catchment planning for water harvesting and soil conservation interventions

2. Contents

The course includes:

- 1) Water harvesting methods and applications in Jordan;
- 2) Data collection and preparation (QGIS, GEE) for water harvesting and soil conservation interventions in a catchment;
- 3) Field visit to a catchment where water harvesting and soil conservation interventions can be made, including ground-truthing of data.
- 4) Suitability mapping and catchment planning for water harvesting and soil conservation interventions;

3. Inputs

The course will be given by:

- Acacia Water: Dr. Maarten J. Waterloo and Marte Siebinga
- IHE: Prof.dr. Pieter van der Zaag
- Jordanian experts: from JVA, UJ, and/or MoWI

Data processing guide with assignments, literature, data files and a 3R intervention manual prepared by Acacia Water will be used as course materials.

4. Preliminary schedule

Date	Time	Topics	Lectures
Sun 19-05	Morning	Introduction: catchment planning for water harvesting and soil and water conservation (incl. course objectives); Introduction Al Muwaqqar catchment + research station	Acacia Water, IHE UJ
	Afternoon	QGIS and Google Earth refresher for Al Muwaqqar catchment	Acacia Water
Mon 20-05	Morning	The Al Muwaqqar research station (general)	UJ (Dr. Al-Abdallat + Dr. Al-Bakri)
	Afternoon	Al Muwaqqar catchment field visit (general)	Acacia Water
Tue 21-05	Morning + afternoon	Review of water harvesting in Jordan: successful examples and lessons learnt (1hr) Desk study: - Objectives for interventions (group assignment) - Assessment of selected sub-catchments (group assignment):	JVA (Abeer) Acacia Water, IHE

		<ol style="list-style-type: none"> 1. First data collection and preparation; 2. Identification of potential water harvesting/soil conservation measures – to be confirmed by ground-truthing 3. Monitoring methods and site(s) identification; 4. Data collection/validation plan for field visit 	
Wed 22-05	Morning	Ground truthing – field visit to selected sub-catchments Al Muwaqqar	Acacia Water, IHE
Thu 23-05	Morning	<p>Processing field observations and intervention planning. Developing sub-catchment maps with rain water harvesting and soil conservation interventions</p> <p>Preparing presentation of sub-catchment plans/maps</p>	Acacia Water, IHE
	Afternoon	<p>Presentation of sub-catchment plans/maps</p> <p>Course evaluation and contents for the third training course</p>	Acacia Water, IHE, UJ

5. Location

Amman Hilton, field visit to Al Muwaqqar.

6. Date

May 19 - 23, 2024