

# WEBINARS SERIES ON RAINWATER HARVESTING

31<sup>st</sup> May 2022 – 7<sup>th</sup> June 2022

Module n°1:

Introduction to Rainwater Harvesting



## Module 1: Introduction to RWH

### Session 1: Setting the Scene

**Date:** Tuesday, 31<sup>st</sup> May 2022

**Register:** [Setting the scene](#)

### Session 2: Showcasing Global and Regional RHW Applications for Agro-Ecosystems and Cropping Systems

**Date:** Tuesday 7<sup>th</sup> June 2022

**Register:** [Showcasing global and regional RWH](#)

## BACKGROUND

Water scarcity is a critical challenge in countries and regions with arid and semi-arid conditions and fast-growing water demands. This is mostly the case in all of the countries across the NENA Region, where food demand and food insecurity continue to grow, widening the water supply-demand gap in most countries. Furthermore, the anticipated impact of climate change in the NENA region is indicative towards an increased intensity of rainstorms and flashfloods, while the total amount of annual precipitation rates shows declining trends. During the last 20 years, interest has been renewed in RWH as one of the most effective climate adaptation strategies to cope with water scarcity, thus reducing the pressure on the limited fresh water resources and increasing rainfed crop productivity.

This webinar series on Rainwater Harvesting aims to provide an overview of RWH applications and illustrates, with country examples, the diversity of approaches. It will try to unlock the potential of rainwater harvesting applications in the NENA region by highlighting the role of rainwater management in overcoming the current challenges in achieving water security. It will also shed the light on the need for innovations in economics, social consensus and supportive laws and regulations to ensure a widespread uptake of RWH technologies in the NENA region.

### Main Conveners:

FAO/WEPS-NENA project & Water Scarcity Initiative (WSI) with: ICARDA, ICID and FAO *inter-Regional Technical Platform on Water Scarcity* (IRTP-WS)

### Contributing Partners:

INRAA (Algeria) and WOCAT

### Contact Persons:

**Domitille Vallée** [Domitille.Vallee@fao.org](mailto:Domitille.Vallee@fao.org)

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**Heba Al Hariry** [Heba.alhariry@fao.org](mailto:Heba.alhariry@fao.org)

### Languages:

English and French with live translation

### Recording:

<https://dgroups.org/fao/waterproductivity>

## ABOUT THE MODULE 1

There are two webinars available for an Introduction to Rain Water Harvesting. The first webinar "Setting the scene" and the second webinar "Showcasing Global and Regional RWH Applications for Agro-Ecosystems and Cropping Systems" will provide an overview of RWH systems, the objectives of RWH and its main applications, the classification and suitable conditions for RWH by show-casing various regional and international RWH applications for agro-ecosystems and cropping systems.



## EXPECTED OUTCOMES FOR THE PARTICIPANTS

Participants will achieve the following outcomes:

- 1 Understand the core concepts of rainwater harvesting.
- 2 Get an overview of practical applications of rainwater harvesting.
- 3 Bring attention to the potential of RWH for improved food and water security, enhanced resilience to climate change and other ecosystem services.

## SUGGESTED READINGS

- **Mekdaschi Studer, R. and Liniger, H. 2013. Water Harvesting: Guidelines to Good Practice.** Centre for Development and Environment (CDE), Bern; Rainwater Harvesting Implementation Network (RAIN), Amsterdam; MetaMeta, Wageningen; The International Fund for Agricultural Development (IFAD), Rome. <https://www.wocat.net/library/media/25/>
- **Water harvesting indigenous knowledge for the future of the drier environments:** [https://www.researchgate.net/publication/267131411\\_Water\\_harvesting\\_indigenous\\_knowledge\\_for\\_the\\_future\\_of\\_the\\_drier\\_environments\\_ICARDA\\_Aleppo\\_Syria\\_40\\_pp](https://www.researchgate.net/publication/267131411_Water_harvesting_indigenous_knowledge_for_the_future_of_the_drier_environments_ICARDA_Aleppo_Syria_40_pp)
- **Rainwater harvesting for restoring dry agroecosystems:** a conceptual review of opportunities and constraints in a changing climate. *Environmental Reviews*, 2017, Vol. 25, No. 2: pp. 135-149. <https://cdnsiencepub.com/doi/10.1139/er-2016-0069>
- **Management and Conservation Water Techniques for and by Farmers:** when the water management is a risk shared by the community. Case of fragile ecosystems in Algeria. <https://dx.doi.org/10.5281/zenodo.3970348>
- **The oasis system: a smart model of adaptation to the climatic changes.** In *Environmental Biotechnology and Engineering: ISEBE Advances 2016*, Ed. Cinvestav, Mexico City, Mexico, chapter 5.2, pp 191-199, [http://horizon.documentation.ird.fr/exl-doc/pleins\\_textes/divers18-05/010072565.pdf](http://horizon.documentation.ird.fr/exl-doc/pleins_textes/divers18-05/010072565.pdf)
- **Impact des canicules sur les productions agricoles et la demande en eau d'irrigation.** *Journal Algérien des Régions Arides (JARA)*, Numéro spécial 2016, pp 56-68
- **Capacity building of basic communities for the sustainable development of the mountainous zones:** Case of Bejaia, Algeria. <http://doi.org/10.14299/ljser.2019.01.05>
- **Challenges of water resource management in the semi-arid region of Nâama (western Algeria)** *International Journal of the Environment and Water*, Volume 3 (5) pp 138-146
- **Contribution à une meilleure utilisation des précipitations en agriculture pluviale dans la vallée de la Soummam** (Méthodes de collecte des eaux pluviales)

# Session 1

## Speakers and moderator



### **Mrs Rima Mekdaschi Studer**

is a Senior Research Scientist at the Centre for Development and Environment (CDE), University of Bern. As an agronomist she has wide experience and skills in plant production with a focus on drylands (soil - plant - water relations). In her more than 15 years with WOCAT, she successfully linked research to practice. She was heavily involved in producing knowledge products on Sustainable Land Management (SLM), SLM knowledge management, networking and capacity building.



### **Mr Theib Y. Oweis**

is a former director of the water, land, and ecosystems program of ICARDA and a world-leading specialist in water harvesting and management for agriculture, especially under conditions of water scarcity. He has a Ph.D. and MSc. degrees in Agriculture and Irrigation Engineering and spent over 35 years researching, developing, teaching, and publishing on water harvesting, supplemental irrigation, deficit irrigation, water productivity, salinity, and other areas associated with improving the productivity of water use in agriculture.



### **Mrs Heba Al Hariry**

is a hydrogeologist, holding a Master's degree in Environmental Engineering. She has more than 15 years of broad international experience working on international and regional projects in Canada and across the MENA region. Her fields of expertise include Hydrogeology, Disaster Risk Reduction, Integrated Water Resources Management, Remote Sensing, Climate Change, and Business Development. Currently, she is part of the Regional Water Scarcity Initiative Team at FAORNE, leading and coordinating the development of the FAO's newly established *inter*-Regional Technical Platform on Water Scarcity (iRTP-WS).

# Session 2

## Speakers and moderator



### **Mr Kunlun Ding**

is a senior research engineer at the Department of Irrigation and Drainage Engineering, China Institute of Water Resources and Hydropower Research (IWHR). He obtained a PhD degree in soil and water management and has 38 years of research and technology dissemination experience in soil and water management, irrigation and drainage, and rural water supply, including rainwater harvesting and utilization in remote mountainous areas, arid areas and islands.



### **Mr Abdelmadjid Boulassel**

holds a Magister in Agronomic Sciences specializing in Agricultural Hydraulics. He is a former Researcher and Director of the Research Division "Management of Mountain Ecosystems" at INRAA (National Institute of Agronomic Research of Algeria). He was formerly a national Consultant in Irrigation and Climate Change at FAO in Algeria and then FAO national Consultant. He is currently a member of the Research Laboratory on Water Control in Agriculture (LMEA). He has paid particular attention for more than 30 years to the issues of water management and water governance.



### **Mr Fahide Si Tahar**

is an Irrigation Agronomist, holding an MSc degree in agronomy and an MSc degree in water resource management and irrigation. He has twenty years of international work experience in the planning, financing and implementation of agricultural and irrigation development projects. Currently, he is part of the Regional Water Scarcity Initiative team at FAO Regional Office for Near East and North Africa.

# Module 1: Introduction to RWH

## M1/Session 1: Setting the Scene

Date: Tuesday 31<sup>st</sup> May 2022

Time: 01:00 PM - 02:30 PM (GMT +2)

Time	Activity
01:00 – 01:05	<b>Welcome remarks</b> - Introduction to the session objectives and speakers By Heba Al Hariry, FAO Regional Office for Near East and North Africa
01:05 – 01:30	<b>"Overview, Classification and Main Applications of RWH"</b> By Rima Mekdaschi-Studer, WOCAT
01:35 – 02:00	<b>"Concepts, System Characteristics and Suitable Methods of RWH in the MENA region"</b> By Theib Oweis, former Director of the Water, Land and Ecosystems program of ICARDA, Egypt
02:00 – 02:25	Open Discussions – (Q & A)
02:25 – 02:30	Wrap-up and Conclusion

# Module 1: Introduction to RWH

## M1/ Session 2: Showcasing Global and Regional RHW Applications for Agro-Ecosystems and Cropping systems.

Date: Tuesday 7<sup>th</sup> June 2022

Time: 01:00 PM - 02:30 PM (GMT +2)

Time	Activity
01:00 – 01:05	<b>Welcome remarks</b> - Introduction to the session objectives and speakers By Fahide Si Tahar, FAO Regional Office for Near East and North Africa
01:05 – 01:30	Presentation on <b>"Rainwater Harvesting and Utilization in China: Practices for Irrigation and Drinking Water Uses"</b> By Kunlun Ding, ICID - China
01:35 – 02:00	Présentation on « <b>Les techniques de collecte et de gestion des eaux pluviales par et pour les paysans en Algérie</b> » <b>"Rainwater harvesting and management techniques by and for farmers in Algeria"</b> By Abdelmadjid Boulassel, INRAA - Algeria
02:00 – 02:25	Open Discussions – (Q & A)
02:25 – 02:30	Wrap-up and Conclusion

This activity is implemented within the regional project "Implementing the 2030 Agenda for water efficiency/productivity and water sustainability in NENA countries" under the umbrella of the Water Scarcity Initiative. This regional project is implemented by the Food and Agriculture Organization of the United Nations and funded by the Swedish International Development Cooperation Agency (SIDA).

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