



## SESSION DESCRIPTION FORM 2. 10<sup>TH</sup> WORLD WATER FORUM

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### **Session Code and Title:**

T1C2 Agricultural water management: Technologies, practices, and outreach to support smallholder farmers in the Global South.

### **Session Coordinators (Name, Position, Organization, email, mobile number):**

Nicole Lefore, Associate Director of Sustainable Agriculture Water Management, Daugherty Water for Food Global Institute, University of Nebraska, [nlefore@nebraska.edu](mailto:nlefore@nebraska.edu) +1 5095404000

Jean Albergel, Research Director, French Institute of Research for Sustainable Development (IRD), [jean.albergel@ird.fr](mailto:jean.albergel@ird.fr) +33 6 33 10 71 41

### **Session Description including objectives and expected outcomes (500 words maximum):**

In the context of the United Nations Agenda 2030 and the Sustainable Development Goals, it is becoming vital to address the inter-related challenges of water management and growing demand for food. In many areas, agriculture is the largest user of water and agriculture lands often represent a large portion of the watersheds upon which the rivers depend. Moreover, the effects of climate change, including increased frequency of extreme events such as floods and droughts, and the effect of rising temperatures on are amplifying the complexity of water resource management and the interactions with agriculture and therefore food security. A range of strategies will be needed to ensure broad nutritional security, lower levels of poverty, and sustainable use of water resources in agriculture.

While much focus has been on increasing efficiency of large-scale agriculture through new technologies, smallholder farmers produce a large share of the world's food supply and provide a foundation for local economies. Smallholder farmers are increasingly adapting their agricultural water management practices and adopting irrigation. In some cases, farmers are addressing the impacts of a changing climate by using supplemental irrigation to stabilize production through dry spells and droughts. In other cases, smallholders are responding to growing market demand for nutritious foods by irrigating across multiple seasons throughout the year.

Given the value smallholders offer for food security and economic growth, an increasing number of national policies and regional initiatives are targeting irrigation development on individual or household farms. This is being complemented by market development by private sector equipment and service suppliers. However, smallholders often face constraints to change their agricultural water management practices to intensify production. In addition, a growing number of smallholders are women farmers, especially in the Global South, who are met with added barriers as they commercialize and expand their farms.

The objective of this session is to examine inclusive and scalable solutions to improve food production by smallholder farmers (women and men). It recognizes the benefits offered by small-scale irrigation, as well as continued challenges to sustainable expansion. The session will share case-studies of high potential practices and technologies from recent projects across regions, such as rainwater harvesting, low-cost irrigation equipment and methods, approaches to governing water resources as irrigation expands, and complementary services that need to be bundled to enhance opportunities throughout irrigated value chains. The session outcomes will include reflections and lessons relevant for strengthening programs, policies and investments as more countries prioritize support for irrigated small-scale production.

**Detailed Session plan : 23 May 2024 (Thursday), 10:50 - 11:20**

ESTIMATED TIMING	ITEM DESCRIPTION / ROLE	SPEAKERS	SPEAKERS STATUS (OK OR TBC)
5 min	Welcome and Opening Remarks and Session Introduction	Nicole Lefore, Daugherty Water for Food Global Institute, University of Nebraska	OK
5 minutes	Setting the scene: Smallholder irrigation and food security in Africa	Prof. Lahcen Kabiri, Moulay Ismail University, Morocco	OK
70 min (presentation maximum 8 minutes with - 10 minutes Q & A)	Case studies: 1. Water in the Oasis: a Fascinating Model for Agro-ecology 2. Coupling Rainwater Harvesting and Low-Cost Supplemental Irrigation to Improve Food Security for Smallholder Farmers: Case Studies from India and Iraq 3. Effective Rainwater Management to Support Smallholder Farmer Productivity 4. The Role of Subak in Balinese Culture and Its Relevance to Modern Sustainability Practices 5. Tools and Institutions to Support Increased Sustainability of Groundwater Management for Irrigation 6. Beyond reach: Strengthening approaches to women farmers' access to irrigation Q & A	Jean Albergel, French Institute of Research for Sustainable Development (IRD) [in person]  Vinay Nangia, ICARDA: International Center for Agricultural Research in the Dry Areas [in person]  Willard Phinifolo, Malawi Youth Parliament for Water [in person TBC]  Dr. Mawiti Infantri Yekti, Universitas Negeri Yogyakarta and Prof. Dr. Ir. I Gusti Ngurah Santosa, ASEAN Eng./Bali Centre for Water Study Universitas Udayana [in person]  Claudia Ringler, International Food Policy Research Institute, USA [recorded video]  Nicole Lefore, Daugherty Water for Food Global Institute, University of Nebraska [in person]	OK for all speakers
5-10 min	Reflection and closing remarks on smallholder case studies and the relevance for policy priorities in Africa	Moderator: Jean Albergel  Rashid Mbaziira, Executive Secretary, AMCOW	OK