



**FEED <sup>THE</sup> FUTURE**

The U.S. Government's Global Hunger & Food Security Initiative

**EXPANDING INVESTMENT  
IN SUSTAINABLE, SMALL-  
SCALE IRRIGATION**

# **LESSONS** FROM **TEN YEARS OF RESEARCH**

**for agricultural-led growth,  
resilience, and well-being**



**INNOVATION LAB FOR SMALL SCALE IRRIGATION SYMPOSIUM  
MARCH 1, 2023, 8:30AM-5PM  
RONALD REAGAN BUILDING, WASHINGTON, D.C.**

*Figures below and throughout this booklet are from 2013–2022 and do not yet include data from the final year.*

# 14,119

**INDIVIDUALS IN THE AGRICULTURE SYSTEM WHO HAVE APPLIED IMPROVED MANAGEMENT PRACTICES OR TECHNOLOGIES RELATED TO AGRICULTURAL WATER MANAGEMENT**

# 124+

**INDIVIDUALS WHO HAVE RECEIVED USG-SUPPORTED DEGREE-GRANTING NON-NUTRITION-RELATED FOOD SECURITY TRAINING**

over 

# 6219

**PEOPLE WHO RECEIVED SHORT-TERM AGRICULTURAL PRODUCTIVITY OR FOOD SECURITY TRAINING**

## PROJECT VISION

To contribute an increase of profitable, sustainable, and gender-sensitive irrigation to support inclusive agricultural growth, resilient food systems, and nutrition and health outcomes, particularly for vulnerable populations.

## PROJECT OBJECTIVES

1. Strengthen information, tools, and policy and programmatic approaches to support environmentally and economically sustainable scaling of small-scale irrigation while simultaneously reducing and mitigating risks.
2. Generate evidence on trade-offs of small-scale irrigation technologies and related practices and approaches in the context of climate variability that can inform development investment and plan for resilience.
3. Identify approaches that improve inclusive access for women, men, and youth to technology and practices to increase productivity, particularly in irrigated agriculture.
4. Generate knowledge and strengthen capacity to support resilience and gender- and nutrition-sensitive policies, planning, and programming.



# 21

**AGRICULTURAL AND NUTRITIONAL  
ENABLING ENVIRONMENT POLICIES  
ANALYZED, CONSULTED**

# 146

**TECHNOLOGIES, PRACTICES, AND APPROACHES  
UNDER VARIOUS PHASES OF RESEARCH,  
DEVELOPMENT, AND UPTAKE**

# 103

**WATER RESOURCES SUSTAINABILITY  
ASSESSMENTS UNDERTAKEN**

# About ILSSI

The Feed the Future Innovation Lab for Small Scale Irrigation is a cooperative agreement for research led by Texas A & M University and implemented in Ghana, Mali, Ethiopia, and Tanzania. The project works with international and national research institutions, as well as private sector companies, to generate evidence on the high potential for small-scale, farmer-led irrigation to contribute to the goals of the Global Food Security Strategy: inclusive and sustainable agricultural-led economic growth strengthened resilience among people and systems and a well-nourished population, especially women and children. Beginning in 2013 and ending in 2023, project partners have focused on identifying the pathways between irrigation and achieving key global targets for socioeconomic development and nutritional security while addressing the challenge of how to increase the use of small-scale irrigation in an inclusive and economically, and environmentally sustainable way.

## PROJECT LEADERSHIP

### Director

#### 2018-2023

Nicole Lefore

#### 2013-2018

Neville Clarke

### Associate Program Director

Matt Stellbauer

### Project Coordinator

Abbey Kunkle

### External Advisory Committee

#### 2018-2023

Katherine Snyder

Beverly McIntyre

Hans Komakech

Nuhu Hatibu

#### 2013-2018

Evelyn Namubiru-Mwaura

Saa Dittoh

Philip Riddell

Eng. Mbogo Futakamba

# INNOVATION LAB FOR SMALL SCALE IRRIGATION SYMPOSIUM

**Expanding investment in sustainable, small-scale irrigation for agricultural-led growth, resilience, and well-being: Lessons from 10 years of research**

## **PROGRAM**

The Feed the Future Innovation Lab for Small Scale Irrigation partners share key findings from research and impacts of activities since 2013 in Ghana, Ethiopia, Tanzania, and Mali.

Also, the event will feature presentations from ten years of research and practice on smallholder farmer access to irrigation and managing and mitigating risks of expanding irrigation.

In addition, invited speakers and panelists will highlight future priorities and forward-looking issues for research and international agricultural development.

The Innovation Lab aims to contribute to an increase in profitable, sustainable, and gender-sensitive irrigation to support inclusive agricultural growth, resilient food systems, and nutrition and health outcomes, particularly for vulnerable populations.

## WELCOME AND OPENING

9:00	Welcome	<ul style="list-style-type: none"><li>Nicole Lefore, Texas A &amp; M University</li></ul>
9:10	Water and agriculture in the U.S. Global Food Security Strategy	<ul style="list-style-type: none"><li>USAID Bureau for Resilience and Food Security</li></ul>
9:25	Climate adaptation and agricultural water	<ul style="list-style-type: none"><li>Katie Kennedy Freeman, Agriculture and Climate Adaptation, World Bank</li></ul>
9:40	Health break	

## SESSION 1

### Inclusive and Sustainable Agricultural-Led Economic Growth

10:00	<p>Contributing to agricultural led growth and improved livelihoods through small-scale irrigation</p> <p>Small-scale irrigation benefits producers and other actors in irrigated value chains. Access to irrigation can be expanded through market-based approaches and private sector partnerships.</p>	<p>MODERATOR</p> <ul style="list-style-type: none"><li>Michael Dockery, ACDI-VOCA</li></ul> <p>PRESENTERS</p> <ul style="list-style-type: none"><li>Bedru Balana, International Food Policy Research Institute</li><li>Minh Thai, International Water Management Institute</li><li>Karin Jeanneret, ENNOS</li><li>Melkamu Derseh, International Livestock Research Institute</li></ul>
11:00	<p>PANEL DISCUSSION</p> <p>Climate adaptation, agriculture, and market systems: Irrigation scaling and research-private partnerships</p> <p>Lessons from across sectors and programs on effective partnerships, finance mechanisms and reaching women and youth.</p>	<p>MODERATOR</p> <ul style="list-style-type: none"><li>Keith Dokho, USAID</li></ul> <p>PANELISTS</p> <ul style="list-style-type: none"><li>Ku MacMahan, USAID</li><li>Joy Busolo, World Bank</li><li>Tesfaye Hailu, Power for All</li></ul>
11:40	Lunch break	

## SESSION 2

### Strengthened resilience among people and systems

<p><b>1:00</b></p>	<p>Scaling irrigation for sustainability and resilience of people and systems amid climate change</p> <p>Irrigation enables climate adaptation, diversification, higher productivity. Farmer investment is expanding to meet food demand across seasons. Evidence-based planning and monitoring will be needed to ensure sustainability and prevent maladaptation, alongside water governance at community and other scales.</p>	<p>MODERATOR</p> <ul style="list-style-type: none"> <li>• Dr. Srinivasan, Texas A &amp; M University</li> </ul> <p>PANELISTS</p> <ul style="list-style-type: none"> <li>• Fati Aziz, Texas A &amp; M University</li> <li>• Claudia Ringler and Hua Xie, International Food Policy Research Institute</li> <li>• Petra Schmitter, International Water Management Institute</li> <li>• Hagar ElDidi and Wei Zhang, International Food Policy Research Institute</li> </ul>
<p><b>2:00</b></p>	<p>PANEL DISCUSSION</p> <p>Climate resilience, water risks and steps toward sustainability</p> <p>Lessons from across sectors and programs on effective approaches to policies, institutions and interventions in water and energy toward balancing climate, environment and human resilience</p>	<p>MODERATOR</p> <ul style="list-style-type: none"> <li>• Ann Vauhn, USAID</li> </ul> <p>PANELISTS</p> <ul style="list-style-type: none"> <li>• Kindu Mekonnen, International Livestock Research Institute</li> <li>• Carlijn Neuwen, Climate Action Platform</li> <li>• Tess Russo, Bill &amp; Melinda Gates Foundation</li> <li>• Agustin Cornejo, Off Grid Manager at Tetra Tech, SURE Senegal Project</li> </ul>
<p><b>2:40</b></p>	<p>Health break</p>	

Photos in this program are by Reel Diaries, Ghana



## SESSION 3

### A well-nourished population, especially among women and children

<b>3:00</b>	<p>From irrigation to improved nutrition and equity: Guiding intervention</p> <p>Evidence suggests small-scale irrigation can be a nutrition and resilience investment, though it can empower or disempower women. Intentional project design can support positive outcomes.</p>	<p>MODERATOR</p> <ul style="list-style-type: none"><li>• Katherine Snyder, University of Arizon</li></ul> <p>PANELISTS</p> <ul style="list-style-type: none"><li>• Elizabeth Bryan, International Food Policy Research Institute</li><li>• Ruth Meinzen-Dick, International Food Policy Research Institute</li></ul>
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## SESSION 4

### Cross-cutting — Capacity development

<b>3:30</b>	<p>Ensuring the capacity to sustain water for agriculture and resilience</p> <p>Long-term sustainability of water resources rests on the capacity in public and scientific institutions, in private companies, on farms and in communities to manage and govern water. Innovative approaches are required to strengthen capacity.</p>	<p>MODERATOR</p> <ul style="list-style-type: none"><li>• Jessica Bagdonis, USAID</li></ul> <p>PANELISTS</p> <ul style="list-style-type: none"><li>• Nicole Lefore, Texas A &amp; M University</li><li>• Seifu Tilahun, Bahir Dar University and International Water Management Institute</li></ul>
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## SESSION 5

### Looking forward

<b>4:00</b>	<p>PANEL DISCUSSION</p> <p>Building a resilient future: Issues in farmer-centered, smallholder irrigation</p> <p>Looking forward: What are the priorities for research and investment in irrigation? What can be learned across countries and regions? What partnerships are needed to support Global Food Security goals?</p>	<p>MODERATOR</p> <ul style="list-style-type: none"><li>• USAID</li></ul> <p>PANELISTS</p> <ul style="list-style-type: none"><li>• Daugherty Water for Food Institute, University of Nebraska</li><li>• Belete Bantero, Ethiopian Agricultural Transformation Institute</li><li>• Biniam Iyob, USAID</li><li>• Kristi Tabaj, Bureau for Humanitarian Assistance</li></ul>
<b>4:45</b>	Remarks and closing	<ul style="list-style-type: none"><li>• USAID</li></ul>



## **PARTNERS**

Partners over ten years of the  
Innovation Lab for Small Scale Irrigation

### **Project lead:**

Norman Borlaug Institute for International Agricultural Development  
Texas A & M University, AgriLife Research

### **International research partners:**

International Water Management Institute  
International Food Policy Research Institute  
International Livestock Research Institute  
World Vegetable Center

### **University research partners:**

North Carolina A & T State University, U.S.  
Prairie View A & M University, U.S.  
University for Development Studies, Ghana  
University of Ghana  
Kwame Nkrumah University of Science and Technology, Ghana  
Sokoine University of Agriculture, Tanzania  
Bahir Dar University, Ethiopia

### **Producer partners:**

Genet Lerobit Dairy Cooperative, Bahir Dar Zuria District, Amhara  
National Regional State, Ethiopia

Mishgida Etti Women's Dairy Cooperative, Kededa Gamela District,  
Southern Nations, Nationalities, and Peoples' Regional State, Ethiopia

Habebo Women's Dairy Cooperative, Lemo District, Southern Nations,  
Nationalities, and Peoples' Regional State, Ethiopia

## PRIVATE PARTNERS

PEG Africa, Ghana

Rensys Engineering & Trading PLC, Ethiopia

EcoTech Mali

Malian Engineering, Construction, and Maintenance  
Company (EMICOM), Mali

**\$**  
USD **909,554**

**PRIVATE SECTOR PARTNER  
INVESTMENTS LEVERAGED**

**\$**  
USD **495,810**

**VALUE OF AGRICULTURE-  
RELATED FINANCING ACCESSED  
FOR IRRIGATION EQUIPMENT**



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

# 75 and counting!

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INSTITUTE  
for International Agriculture

TEXAS A&M  
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ILSSI SYMPOSIUM · MARCH 1, 2023 · WASHINGTON, D.C.