

# 2015 International Workshop on Evapotranspiration Mapping for Water Security

September 15, 16, and 17

The World Bank  
1818 H St NW, Washington, DC



Evapotranspiration (ET) is the primary consumer of fresh water and is essential to understanding the hydrologic cycle and impacts of water diversion, storage, and use at local, regional, and global scales. The last several decades have witnessed substantial advances in our ability to compute and map ET over large areas through the use of satellite-based remote sensing and geospatial models. The NASA Applied Sciences Program Water Resources Application Area and

the World Bank are co-sponsoring the 2015 International Workshop on Evapotranspiration Mapping for Water Security to further advance the use of these ET tools. The workshop is free and open to the water resources community, but registration is limited to 150 participants.

## Workshop Objectives

- 1) Raise awareness among U.S. and international water resource managers and other stakeholders of the benefits of using satellite-based mapping of ET.
- 2) Highlight successful U.S. and international operational water resource management applications that use remotely sensed ET in decision-making from the field to regional scales.
- 3) Identify opportunities to increase the use of satellite-based mapping of ET to enhance water resource security and sustainability in the U.S. and internationally.
- 4) Identify constraints on expanding the use of remote sensing of ET, for example due to relatively low numbers and revisit frequencies of current field-scale satellite systems.

Identify current challenges and existing barriers to using remotely sensed ET internationally.

- 5) Identify information needs and data requirements from the water resources and ET user communities to inform planning for future satellite missions, including requirements for accuracy, spatial resolution, and revisit frequency.
- 6) Facilitate coordination with the World Bank, USAID, and other agencies to develop a strategy for international research and applied science partnerships to address existing challenges and accelerate the use of remotely sensed ET in water resources management.

## Meeting Overview

Day 1 will describe the major approaches for developing ET datasets and maps, the requirements and limitations of current satellite revisit times and spatial scales, and the important attributes of remote sensing systems. These will be discussed in the context of impacts on water management and market-driven water transfers.



Day 2 of the workshop will review examples of recent and ongoing work in the U.S., China, Africa, Brazil, and other countries to apply satellite-based estimates of ET to improve monitoring and management of agricultural water resources, and to resolve disputes over water distribution and water rights. Discussions will focus on identifying near-term opportunities to apply this technology to achieve improvements in water resources management, water distribution equity, project planning and operations, and food production. Participants will discuss strategies to realize in-country investments in ground-based meteorological networks, validation campaigns, computing infrastructure for data access, and technical training.

Day 3 will present emerging technologies for ET mapping, and will also include an important half-day workshop during which attendees will develop specific recommendations to inform investments in future research and applied science activities, as well as planning for future satellite systems.

There will be an opportunity for non-speakers and speakers to bring stand-

alone posters to the workshop that can be displayed during the workshop.

#### Speakers

The workshop program includes invited speakers from state and federal agencies and private practice having unique and diverse experiences in developing, applying and using ET mapping technology in water resources management. Speakers from NASA and the USGS will provide updates on planning for future Landsat missions.

#### Registration

The Workshop will have **no registration fee** and is open to the water resources community, but seating is limited. Drop-in attendees are welcome, but all potential attendees should pre-register to minimize on-site time required by security procedures at the World Bank. Please register on-line at:

<http://tinyurl.com/IntlET2015>

#### Agenda

Updated information on the workshop agenda, speakers, topics, and travel and logistics is available on-line at:

<https://c3.nasa.gov/water/resources/10/>

## **Day 1 : Success to Date: ET Applications in the United States**

***Session 1 & 2 – Operational Applications using Remotely Sensed ET in Decision-Making from Field to Regional Scales***  
***Session 3 – Future Satellite Missions and Opportunities***

## **Day 2: International ET Applications**

***Session 1 & 2 – International Case Studies***  
***Session 3 – Interactive Poster Session***  
***Session 4 – Opportunities, Challenges, & Next Steps***

## **Day 3: Emerging Technologies / Summary & Recommendations**

***Session 1 – Emerging Technologies***  
***Session 2 – Community Recommendations and Next Steps***

For questions regarding registration or the workshop format and venue, please contact: [iwrri@uidaho.edu](mailto:iwrri@uidaho.edu).

