

# #ADBWaterWatch

WEBINARS BY THE ADB WATER SECTOR GROUP

## Expanding Support to Water Accounting in River Basins and Water Productivity Measurement in Irrigation Projects



The ADB Water Sector Group, IHE Delft Institute for Water Education (IHE Delft), and the International Water Management Institute (IWMI) are conducting a two-part webinar on water accounting and water productivity analyses using remote sensing on 12 and 18 November, respectively. This is part of the work under the Water Financing Partnership Facility through the technical assistance (TA 6498), Knowledge and Innovation Support for ADB's Water Financing Program.

Originally, the plan was to organize several in-country workshops and training sessions. However, due to the pandemic, these events can no longer be implemented face-to-face before the end of the project.

The two-part webinar is a means to continue and reformat the intended workshops. It will describe the concepts and methodologies, as well as present some of the results from the case studies and impacts on decision-making. The webinars are part of a blended online approach, which will also include different knowledge products (such as reports, data, videos, etc.) that will be made available online through the ADB Knowledge Events website, IHE YouTube channel, and [wateraccounting.org](http://wateraccounting.org).

### Part 1

#### Improved Decision-Making for Water Security Using Water Accounting

12 November 2020, 9:00–10:00 a.m. CET / 4:00–5:00 p.m. Manila

### Part 2

#### Increasing Agricultural Production Using Water Productivity

18 November 2020, 9:00–10:00 a.m. CET / 4:00–5:00 p.m. Manila

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## Part 1

# Improved Decision-Making for Water Security Using Water Accounting

12 November 2020, 9:00–10:00 a.m. CET / 4:00–5:00 p.m. Manila

Over the past two years, ADB Water has partnered with IHE Delft and IWMI to conduct water accounting studies in which remote sensing data are used to generate quantitative information and maps on major storages, flows, and fluxes of water resources within a river basin. This information is critical to ensure all major water demands can be sustainably met, including for agriculture, domestic, energy, and environmental purposes.

In this webinar, IHE Delft and IWMI will share the results of the water accounting studies. The concept of water accounting and the Water Accounting Plus (WA+) methodology will be introduced, along with examples on how water accounting can be used in decision-making and a vision for the future of remote sensing-based water accounting. Following the presentation, there will be a Q&A session with the expert panel.

## AGENDA

Welcome and Introduction to WA+ Project  
**Lauren Zielinski and Jelle Beekma**

What is Water Accounting?  
**Elga Salvadore**

Water Accounting for Decision-making  
**Marloes Mul**

Vision for Water Accounting and Remote Sensing for Water Security  
**P.S. Rao**

Q&A with Expert Panel  
Moderator: **Lauren Zielinski**

## ABOUT THE SPEAKERS



### Elga Salvadore

Dr. Elga Salvadore is a lecturer in water accounting at IHE Delft in the Netherlands. She teaches water accounting and remote sensing-related subjects and is involved in various capacity development and research projects in Cambodia, Egypt, India, Jordan, and Palestine). In 2017, she was appointed as guest professor at the Vrije Universiteit Brussels and KULeuven (Belgium) where she teaches Environmental Programming in Python for students of the Interuniversity Master in Environmental Engineering (IUPWARE).



### Marloes Mul

Dr. Marloes Mul is an associate professor in water resources management at IHE Delft, where she currently manages the Water Accounting and Water Productivity team. Before joining IHE Delft, Marloes was based in the West Africa Office of IWMI in Accra, Ghana, where she worked on research projects dealing with dam operation and natural and built infrastructure in the West Africa region, particularly in the Volta Basin. She was a visiting lecturer at the University of Zimbabwe between 2004 and 2007.



### P.S. Rao

Dr. P.S. Rao is the director of the Advanced Center for Integrated Water Resources Management (ACIWRM) and currently works for the Government of Karnataka. He has 28 years of working experience in the water sector having worked with ADB, the Governments of India and the Netherlands, UN Food and Agriculture Organization (FAO), universities, and other NGOs and donor agencies focused on water and agriculture. He holds a PhD from Osmania University in India.



### Naga Manohar Velpuri

Dr. Naga Manohar Velpuri is a senior researcher at IWMI. His research interests are mostly focused on the overlapping areas of water resources, surface hydrology, remote sensing, and geospatial analysis. His current research projects cover analyzing spatiotemporal water resources data and basin water accounting studies using multi-source satellite data.

## Part 2

# Increasing Agricultural Production Using Water Productivity

18 November 2020, 9:00–10:00 a.m. CET / 4:00–5:00 p.m. Manila

In addition to water accounting, ADB Water, IHE Delft, and IWMI have been conducting water productivity studies, combining field and remote sensing data, to provide detailed information on how productive irrigated agricultural lands are compared to the amount of water consumed. This information is becoming increasingly important for decision-makers who are tasked with sustainably managing water resources while increasing food security in their region.

In this webinar, IHE Delft and IWMI will share the results of their work. They will introduce the concept and methodology of remote sensing-based water productivity, showcasing the results of three water productivity studies and examples of how water productivity results have impacted decision-making. There will be a Q&A session with the expert panel after the presentations.

## AGENDA

Welcome and Introduction to Water Productivity Project  
**Lauren Zielinski and Jelle Beekma**

Remote Sensing for Water Productivity Assessments  
**Poolad Karimi**

Mapping for Evapotranspiration, Biomass, and Water Productivity  
**Sajid Pareeth**

Decision-making Using Water Productivity Analyses  
**Lisa-Maria Rebelo**

Q&A with Expert Panel  
Moderator: **Lauren Zielinski**

## ABOUT THE SPEAKERS



### Poolad Karimi

Dr. Poolad Karimi is a water resource and irrigation engineer with more than 15 years of international experience. He currently leads and contributes to several international advisory, research, and capacity development projects on water resources development and irrigation in Africa and the Middle East. He has been involved in numerous research projects pertaining to basin and field-level productivity, water scarcity management, small-scale irrigation interventions, water use efficiency, and the groundwater-irrigation-energy nexus. He has also been helping lead the development of the WA+ framework.



### Sajid Pareeth

Dr. Sajid Pareeth is a researcher and lecturer in remote sensing at IHE Delft. He focuses on remote sensing technologies and land and water use monitoring, and has more than ten years of international experience. His main research in recent years has been to develop crop monitoring systems by satellite-based estimation of water use and water productivity at different scales in the spatial and temporal domain. He contributes to several projects in Asia and Africa funded by the European Union, Dutch ministries, UN FAO, and ADB. Sajid obtained his PhD in Natural Sciences from Freie Universität Berlin. He was a DAAD scholarship recipient in Germany during his MSc in Photogrammetry and Geoinformatics at HFT-Stuttgart.



### Lisa-Maria Rebelo

Dr. Lisa-Maria Rebelo is a principal researcher at IWMI. Her research involves the development of new, innovative earth observation-based methodologies to improve the understanding of interactions between basin scale hydrological and ecological functioning, and water availability and allocation; and identifying options for improved management of water resources at multiple scales. Lisa leads IWMI's water productivity and water accounting portfolio.



### Karthikeyan Matheswaran

Dr. Karthikeyan Matheswaran is a regional researcher at IWMI. His research involves combining model tools and earth observation systems to provide evidence-based solutions to key water management problems. Recent research projects include remote sensing-based water productivity assessment, web-based platforms for erosion monitoring, and scenario-based water management models.