

Water-Energy-Food Security New Challenges and New Solutions for Water Management

The International Institute for Sustainable Development's Water Innovation Centre and Global Water System Project invite you to a groundbreaking discussion on 21st-century water management solutions at scales that matter: large basins that both influence and reflect water, energy and food security challenges.



"Demand for water, food and energy is expected to rise by 30–50% in the next two decades...Any strategy that focuses on one part of the water–food–energy nexus without considering its interconnections risks serious unintended consequences." -World Economic Forum, 2011

May 1 | Day 1

Earth Observation Systems and the Water–Energy–Food Security Nexus

Trends in water security are often determined by demands for food and energy security. While integrated water management is often seen as a solution for balancing these demands, the lack of coordination among sectors has left the water sector struggling to cope with the demands of these policies and developments. Furthermore, the diversity of data services and products is often inconsistent across sectors, which can lead to poorly informed and uncoordinated decisions.

This symposium will review the potential of Earth observation systems to provide integrated data products for improving governance and planning processes in the water, energy and food sectors. The symposium will also provide practitioner perspectives on the opportunities for, and barriers to, using Earth observation systems to address linkages between water security, food security and energy security.

May 2 | Day 2

Bioeconomy Solutions for Water, Energy and Food Security in Large Basins

"[There is] growing strategic interest in the concept of the bioeconomy...it can increase the supply and environmental sustainability of food, feed, and fibre production, improve water quality and provide renewable energy." (Organisation for Economic Co-operation and Development, 2010)

The Day 2 workshop will be led by IISD's Water Innovation Centre and will introduce the water–energy–food security nexus and its relationship with basin management, and illustrate an innovative basin-management strategy based on bioeconomy principles providing an integrated response to water, energy and food stressors.

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May 3 and 4 | Days 3-4

Needs Analysis and New Directions Workshop: A Survey of Major Basins

Large basins concentrate runoff, energy and agricultural nutrients and operate at scales that exert significant influence on global regional water, energy and food security. The Global

Water System Project (GWSP) has identified the water-energy-food security nexus as a critical science-policy interface issue in nearly every basin in the world and has been leading a review of major basins around the globe.

The workshop addresses the following questions:

- 1. How are integrated water-energy-food security challenges affecting major basins?
- 2. How are major basins being managed in order to address these challenges and the effects of changes in the climate, demographics and economies of the world?
- 3. How do water–energy–food security strategies and mechanisms link separate and remote basins and affect their physical, socioeconomic, ecological and governance status?
- 4. How well are current approaches to governance and management addressing these security issues and does a basis exist for recommending changes for the future?

The basins reporting on this survey include the Amudarya, Danube, Elbe, Incomati, Jordan, Lake Winnipeg, Mekong, Mississippi, Murray–Darling, Nile, Okavango, Orange, Volta. Yellow. Rio de la Plata and Huai.



Water system analysts and practitioners who need to understand water-energy-food security nexus issues should not miss this event being held at the Inn at the Forks.

Registration: http://www.watercycleforum.com/workshops future.html

For further information on registration, please contact Shelly Swidinsky at +1 204.958.7711 (Canada), sswidinsky@iisd.ca or Sina Marx at +49 (o)228.73.6188 (Germany), sina.marx@googlemail.com



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