

Sustainability in the Water Energy Food Nexus

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SUSTAINABLE
WATER
FUTURE
PROGRAMME

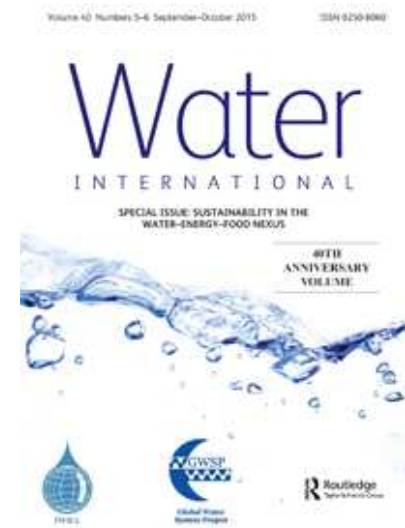


Achieving water, energy and food security for everyone within the planetary boundaries is one of the greatest challenges humankind is facing today.

Nexus Approach focuses on increasing resource use efficiencies, which in turn reduce environmental pressures and maximize the benefits from scarce resources.

The connections between water, other natural resources, societal processes and the functioning of ecosystems need to be explored more systematically.

International Conference on Sustainability in the Water-Energy-Food Nexus in Bonn, Germany May 2014.





International Conference
Sustainability in the Water-Energy-Food Nexus

19 -20 May 2014 in Bonn, Germany



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This Webinar authors will address:

- 1.How can the WEF nexus be implemented across scales?
- 2.How can governance and management practices reduce trade-offs and exploit synergies?



Sustainability in the water–energy–food nexus

Anik Bhaduri, Claudia Ringler, Ines Dombrowski, Rabi Mohtar & Waltina Scheumann

The impact of water users' associations on the productivity of irrigated agriculture in Pakistani Punjab

Dawit K. Mekonnen, Hira Channa & Claudia Ringler

Water–energy–food (WEF) Nexus Tool 2.0: guiding integrative resource planning and decision-making

Bassel T. Daher & Rabi H. Mohtar

Bioenergy, food security and poverty reduction: trade-offs and synergies along the water–energy–food security nexus

Alisher Mirzabaev, Dawit Guta, Jann Goedecke, Varun Gaur, Jan Börner, Detlef Virchow, Manfred Denich & Joachim von Braun

Application of a water–energy–food nexus framework for the Duero river basin in Spain

Beatriz Mayor, Elena López-Gunn, Fermín I. Villarroya & Esperanza Montero



Reuse of oil and gas produced water in south-eastern New Mexico: resource assessment, treatment processes, and policy

Enid J. Sullivan Graham, Anne C. Jakle & F. David Martin

Water–energy–food nexus in a transboundary context: the Euphrates–Tigris river basin as a case study

Aysegül Kibaroglu & Sezin Iba Gürsoy

Water–food–energy nexus in Chile: the challenges due to global change in different regional contexts

Francisco J. Meza, Sebastian Vicuna, Jorge Gironás, David Poblete, Francisco Suárez & Melanie Oertel

How would the Rogun Dam affect water and energy scarcity in Central Asia?

Maksud Bekchanov, Claudia Ringler, Anik Bhaduri & Marc Jeuland

Governance of transitions towards sustainable development – the water–energy–food nexus in Cyprus

Johannes Halbe, Claudia Pahl-Wostl, Manfred A. Lange & Christina Velonis



The water–energy–food (WEF) security nexus: the policy perspective of Bangladesh

Animesh K. Gain, Carlo Giupponi & David Benson

Where is the power? Transnational networks, authority and the dispute over the Xayaburi Dam on the Lower Mekong Mainstream Oliver Hensengerth

Application of payments for hydrological ecosystem services to solve problems of fit and interplay in integrated water resources management

Jochen Hack

Responsible governance of natural resources is the necessary first step for action on the Water-Energy-Food Nexus

The nexus is calling for a broad involvement of stakeholders to collaboratively work toward sustainable development



It is essential to greatly expand financial, institutional, technical and intellectual resources for nexus research and applications



- **Case Studies** to define interconnectivity of W-E-F systems.
- **Shared Platforms** with national, int'l data components to serve the WEF community.
- **Document Data Needs** for multi-scale, transdisciplinary research.
- **Indicators** to monitor governance in management - the role and effectiveness of practices.
- **50-year scenarios** for w-e-f outlooks, in support of planning for impact of climate change, trade-offs, externalities, ecosystem services, food waste.
- **Pilot projects:** test & implement solutions at local/regional-scales.
- **Common Accounting Framework** for ecosystem services, in support of holistic regional resource mgt approaches.

