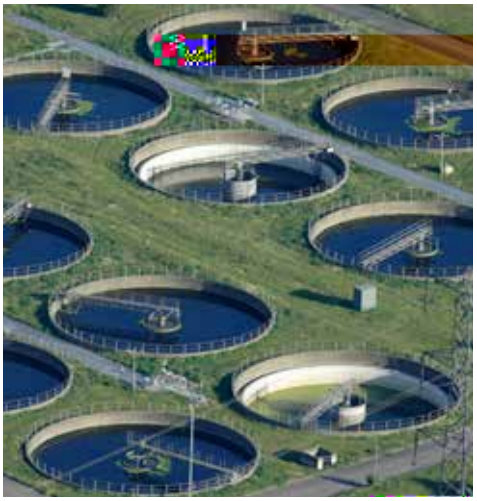
The Dimensions of the Nexus Challenge

The Water-Energy-Food Security Nexus represents a shift in thinking. It moves a sectoral approach to managing key resources into a new focus on integration of sector-based systems. Doing so enables us to better understand and manage the impacts of and linkages between water and the production and use of energy and food. As the demand for energy and food continues to grow, we have become increasingly aware that water is integral to ensuring food and energy demands can be met. Agriculture uses 70% of the world's water to irrigate only



Nexus Thinking: Ways Forward

IUCN and IWA will convene a series of discussions on good practice and innovations for optimizing infrastructure to secure water, energy and food production. Workshops are planned which will enable better understanding of nexus thinking and integration into management and operation of infrastructure, as well as into policy and planning at national levels.
IUCN and IWA invite you to join this process by contributing your knowledge, experiences and ideas:

What type of water infrastructure and technology is being used to provide water for multiple uses including water supply, food production and energy generation?

How is water infrastructure being optimized to share benefits across sectors? How are trade-offs negotiated? How does this change operation of existing infrastructure and planning of new developments?

What elements (social, political, ecological, economic, technical, etc.) are needed for infrastructure to have improved functionality while sustaining water, food and and energy security?

Some Facts and Figures

- In 2030, 47% of the world's population will be living in areas of high water stress
- By 2050, global population is expected to be 9 billion people. 70% more food will be needed
- Agriculture accounts for roughly 70% of water use
- Hydropower provides 20% of the world's electricity and is the main energy source for more than 30 countries
- By 2030 we will need 30% more water, 40% more energy, and 10% of existing crop land for biofuels

What have been obstacles to optimizing water infrastructure for multiple uses of water supply, food and energy, and how have these been navigated?

Timeline

JANUARY 2013

Launch Water Nexus Solutions

Call for Contributions
Submit your solutions online:

22-23 MAY 2013

Nairobi, Kenya
1st Workshop Africa

25-26 SEPTEMBER 2013

Bogota, Colombia
2nd Workshop Latin America

12-13 NOVEMBER 2013

Bangkok, Thailand
3rd Workshop Asia

MAY 2014

Beijing, China
2014 International Conference on Water, Energy and Food

Getting involved

- Visit the Nexus Dialogue website:
- Take part in anchor workshops
- 2014 International Conference
- Join us on twitter – @N and Facebook
- Take part in online discussions with experts
  Contact us: @

Activities

State-of-the-art knowledge – Contributors will submit guidelines, tools and technologies applied to the operation and optimisation of water infrastructure, to enable inter-sectoral and inter-regional exchange. Case studies will be invited on experience of multi-purpose use of water infrastructure, including through re-operation of dams, optimisation of water cascades and integration of portfolios of built and natural infrastructure. Contributions will be accessible in an online knowledge compendium at and provide the basis for a set of thematic synthesis papers. The dialogue will be backed by outreach through multi-media communications, online dialogues, a video interview series and feature articles.

Anchor workshops – A series of three regional workshops – in Africa, Asia and Latin America – will bring together innovators and thought leaders from the water, food and energy sectors. The workshops will build on 'best-practice' success stories in water infrastructure operation, re-operation and innovation to create a shared, cross-sectoral vision that combines best available technology, know-how and experiences. Participants will be invited to build new coalitions and partnerships for follow-up action in technology demonstration, investments in portfolios of water infrastructure and national-level dialogues on policy and implementation.

International conference on nexus solutions – The Nexus Dialogue will culminate in the 2014 International Conference on Water, Food and Energy. The conference will feature the state-of-the-art in water infrastructure and technology solutions for optimization across the nexus. Through a series of technical sessions and focused workshops, the conference participants will develop a series of evidence-based policy recommendations. The conference will be a major milestone in creating new pathways for water infrastructure planning, investments and operations to meet the integrated challenge of water, food and energy security.

Coalitions for action – The Nexus Dialogue will be outcome-oriented and forward looking. The process will actively move existing policy concepts around the nexus to actionable programmes, investments and commitments. The key to success will be the participation of change leaders from across sectors building new coalitions and partnerships for follow-up initiatives and investments. The Nexus Dialogue will anchor innovative ways of using water infrastructure and technology as the cornerstone of optimization across the water-food-energy nexus.