

# Nexus Initiatives



Several nexus initiatives have been undertaken by different actors since the Bonn2011 Conference. Some are listed below.

### Sustainable Energy for All's High Impact Opportunity

The High Impact Opportunity on the Water Energy Food Nexus is a framework for coordinated action to promote the nexus perspective with a focus on energy actors. BMZ and FAO are co-leads. Further partners are USAID, REEEP, UNEP and the World Bank.

### World Bank Group: *thirsty energy*

This new global initiative is led jointly by the Water and Energy Units in the World Bank and will officially be launched at the World Future Energy Summit in January 2014. *thirsty energy* aims to support client countries in addressing the challenges in energy and water resources development, avoid unsustainable scenarios and break disciplinary silos that prevent cross-sectoral planning.

### UNECE Task Force on the Water-Food-Energy-Ecosystems Nexus

The Task Force is responsible for thematic assessments on the water-food-energy-ecosystems nexus in transboundary basins which are part of the Programme of Work under the UNECE Water Convention. The German government cooperates with the Task Force, for example in relation to a planned assessment of the Niger basin.

### Nexus Dialogue on Water Infrastructure Solutions

This initiative led by the International Water Association (IWA) and the International Union for Conservation of Nature (IUCN) provides a forum for sharing experiences, lessons, tools and guidelines on how water infrastructure and technologies can address nexus challenges and provide shared benefits across sectors.

### Grand Challenges for Development on Water, Food and Energy

The Grand Challenge "Securing Water for Food" and the Grand Challenge "Powering Agriculture", supported by USAID, SIDA, the German Development Cooperation and other partners, are important levers for decoupling growth in agricultural production from increased use of fossil fuels and water resources.

### Scientific Initiatives

Numerous scientific institutions have developed activities related to the water, energy and food security nexus, for example the Institute for Advanced Sustainability Studies (IASS Potsdam) on the "Soils in the Nexus", the international kick-off workshop organized by UNU-FLORES in Dresden or the "Nexus 2014: Water, Food, Climate and Energy Security Conference" convened by the University of North Carolina or the conference "Sustainability in the Water-Energy-Food Nexus" by GWSP.

# Contact

### Nexus Resource Platform

The Nexus Resource Platform is the global information hub about all 'Nexus' initiatives, publications and events.



→ [www.water-energy-food.org](http://www.water-energy-food.org)

### Agriwaterpedia

The wiki-based knowledge platform on agricultural water management in the context of climate change.



→ [www.agriwaterpedia.info](http://www.agriwaterpedia.info)



Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety



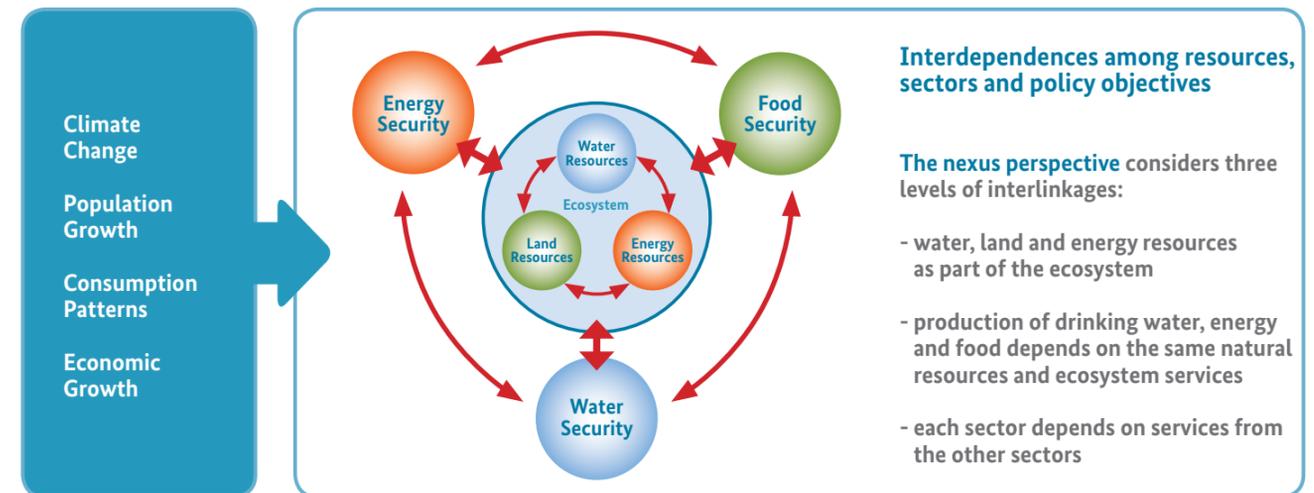
# Realising the Water, Energy and Food Security Nexus

"This radical transformation is needed to satisfy the growing demand for water, food and energy without transgressing environmental limits."

*European Report on Development, 2012*

In a business as usual scenario, by 2030, the demand for water, energy and food will increase by 30-50 % (US National Intelligence Council, 2012). This goes far beyond the planetary boundaries: the gap between water demand and availability could reach 40 % in 2030 (Water Resources Group, 2009). The impact of land, energy and water scarcity on living conditions, and in particular on access to food, drinking water and modern energy, is growing.

Natural resources, the sectors and the policy objectives are fundamentally interconnected. Sector approaches which do not consider these interconnections can lead to negative impacts on other sectors. For example in India, the large-scale development of groundwater pumping for irrigation has led to increased pumping in case of drought, and then to a higher peak electricity demand: combined with water shortages for cooling power plants and hydropower generation, it led to blackouts affecting more than 600 million people in July 2012.



Achieving universal access to food, drinking water and modern energy within the planetary boundaries is possible. This requires considering the interconnections, the vulnerability and the finiteness of natural resources within the policy and regulatory frameworks, the governmental planning mechanisms, the production processes and the consumption patterns.

### Nexus Opportunity Areas

- Increase policy coherence
- Accelerate access
- Create more with less
- End waste and minimize losses
- Value natural infrastructure
- Mobilize consumer influence

The Bonn2011 Conference "The Water Energy Food Security Nexus – Solutions for the Green Economy" was a major milestone to place the nexus perspective on the international agenda. Two years later, the Policy Forum Berlin2013 "Realising the Water, Energy and Food Security Nexus" aimed to provide new impetus for putting cross-sectoral and integrated thinking into practice.

## Nexus Dialogues



The Nexus Dialogues are a format to build consensus among decision-makers and senior experts on specific policy issues related to the water, energy and food security nexus. Regional processes are the pivots: Regional organisations take the lead for a regional Nexus Dialogue. It focuses on one or two issues of special relevance for the region.

### High Level Africa Dialogue on the Water, Energy and Food Security Nexus

“The rush for land is a rush for water and energy.”  
*Nairobi Nexus Dialogue, Outcome Document, Nov. 2012*

The Africa Nexus Dialogue has been initiated by the African Union and the UN Secretary General's Advisory Board on Water and Sanitation (UNSGAB) in November 2012. It aims at accelerating a broader uptake and the implementation of approaches on the Water, Energy and Food Security Nexus by African institutions, practitioners and policy-makers.

Topics of the dialogue were international investments in land and water, and regional nexus approaches. It identified, inter alia, a need to better integrate water aspects in large-scale land lease agreements.

#### Resulting actions to spur change



The African Union initiates a study on water pricing in the context of international land investment.



The Nile Basin Initiative and the East African Power Pool aim to cooperate for better benefit-sharing.



UN-Water, UN-Energy and FAO engage in a high level exchange on conducive frameworks for Nexus implementation.



SADC identified regional Nexus trade-offs and synergies in a Dialogue entitled “Exploring the water, energy and food nexus” in September 2013.



The Nairobi Nexus Dialogue was supported by the Kenyan Ministry of Water and Irrigation and the German Federal Ministry for Economic Cooperation and Development.

## Implementing the Nexus Perspective in German Development Cooperation



The German Federal Ministry for Economic Cooperation and Development (BMZ) is currently integrating the nexus perspective in its framework documents. The new Development Policy Strategy “Promoting Sustainable Agriculture” (2013), which is binding for all agriculture projects, considers the interactions with water and energy security. It stresses in particular how growing global population, changing consumption patterns and increasing energy prices lead to the expansion of energy crops, resulting in increases in food prices and foreign investment in land.

The nexus perspective is also anchored in the BMZ Position Paper on food and nutrition security (2013). Furthermore it will be reflected in the strategy documents for the water and energy sectors.

### Project examples

#### African Water Stewardship Initiative

The African Water Stewardship Initiative (AWSI) aims at reducing shared water risks through partnerships between the private sector, government and civil society. It engages companies across many sectors, including energy and agriculture, to proactively help to address the water constraints that lie at the heart of the Nexus.

#### Mekong River Commission

The German government supports the Mekong River Commission (MRC) in managing the competing uses and objectives concerning Mekong water resources, including energy generation, climate change and flood protection. MRC activities related to the nexus perspective include the international nexus conference “Mekong2Rio” (May 2012) and its follow-up conference in the context of the 2014 MRC Summit (April 2014) as well as studies on the impacts of hydro-power projects on water resources, fisheries and food security and the overall sustainable development of the Lower Mekong Basin.

#### Integrated Resource Management in Asian Cities: the Urban Nexus

The German development cooperation supports ten cities in six Asian countries on integrating the nexus approach into urban planning and development processes. The project focuses on promoting practice-oriented nexus initiatives as innovative approaches in the selected cities and as a vehicle to support changes in governance structures achieving more integrated planning and management on an urban level. Moreover, a regional exchange platform will be established to develop a better understanding and joint enhancement of integrated management procedures for cities.

### Assessing Trade-Offs

The UN Food and Agriculture Organisation (FAO), the German development cooperation and OFID are developing a **Nexus Assessment Package**. This will enable national governments to identify trade-offs and assess policy options related to the water, energy and food security nexus.

The development of the Nexus Assessment Package includes:

- 1) A **Rapid Appraisal Tool**, which aims at allowing decision-makers and practitioners to have a better grasp of the nexus approach and also better identify the main trade-offs to be addressed at national/sub-national levels
- 2) A **Nexus information brochure** aimed to explain the nexus concept and the advantages it brings about in planning and implementing actions related to the water, energy and food sectors.

**More information:**  
[www.water-energy-food.org/assessment](http://www.water-energy-food.org/assessment)

### International Climate Initiative (IKI)

The **German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)** supports Nexus relevant projects in the framework of the International Climate Initiative of the German government, such as a project on “Improved Management of Extreme Events through Ecosystem based Adaptation in Water Sheds” in Thailand or a project on carbon neutral water utilities.

**More information:**  
[www.international-climate-initiative.com](http://www.international-climate-initiative.com)