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Concept Note

International Kick-off Workshop on

Advancing a nexus approach to the sustainable management of Water, Soil and Waste

Dresden, 11-12 November 2013

Convening Organisations

United Nations University Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES)

Technische Universität Dresden (TU Dresden, Faculty of Environmental Sciences)

Co-convening Organisations (confirmed as of 14 August)

FAO, UNCCD, UNESCO-IHE, UNW-DPC

UNU-EHS, UNU-INRA, UNU-INWEH, UNU-ISP, UNU-MERIT,

IWMI, GWP, EWI,

UFZ, IÖR, ZEF,

BMU, BMZ, BMBF.

Workshop concept note

The water, energy and food security nexus, initiated by the Bonn 2011 Nexus conference, was internationally acknowledged as an approach that builds synergies across sectors and may facilitate integrated management and governance strategies, overall promoting sustainability and the transition to a Green Economy. The nexus approach is based on the firm belief that vital environmental resources are strongly interconnected and require a nexus perspective to sustainably manage them. Thus, advancing a nexus approach to the sustainable management of environmental resources requires concerted action and cooperation on a global level and across sectors. However, there are still considerable knowledge gaps in the nexus approach, requiring well-defined nexus research programmes. Also, it yet has to find its way into the curriculum of respective study programs and examples of good and improved governance resulting from adopting a nexus perspective are rare. For a sustained follow-up to the nexus initiative a long-term commitment of leading institutions and thus an institutionalized support is indispensable.

Clearly, the nexus is a very broad concept, covering many aspects related to the areas water, food and energy. From the perspective of resources management, a nexus approach needs to be developed and implemented by integrating **water resources management** and **soil and land-use management** (and planning). Also to be considered and included in the nexus approach is **waste management**, especially concerning organic matter and the recycling of nutrients and concerning the treatment, remediation and rehabilitation of polluted aquatic and terrestrial sites and habitats. For all these resources, sustainable management strategies have to be based on consistent and comprehensive **systems and flux analysis** approaches taking into consideration the **impacts of global change**, considering climate change as well as urbanization, population growth, demographic changes etc.

Besides addressing knowledge gaps and the need for better scientific understanding on why we need a nexus approach (focusing in particular on water, soil and waste), advancing a nexus approach requires special attention to the question what is required to implement it. To be addressed in this respect is the enabling environment, governance and the systems and organizational level (institutional capacity development) as well as knowledge issues and education (individual capacity development).

Objectives

The workshop aims to provide an update on current initiatives advancing a nexus approach, focusing on research initiatives on the integrated management of environmental resources, in particular exploring the nexus of water, soil and waste. It is intended as a kick-off for a series of workshops and conferences. Besides research, issues of capacity development in a broad sense will be considered, including education and training as well as institutional capacity development. Examples and case studies on research projects, best-practices and curriculum requirements will be introduced and discussed to provide an up-to-date overview on the issue.

With respect to the nexus of water, soil and waste, the specific topics to be addressed during the workshop include

1. Opportunities for adopting a nexus approach to the management of environmental resources and its relevance to the envisaged sustainable development goals and the post-2015 development agenda;
2. Challenges for the nexus approach in managing water, soil and waste under conditions of global change;
3. Capacity Development for research and education programmes addressing the nexus, in particular teaching and training programmes;
4. Institutional arrangements and governance structures to facilitate the implementation of a nexus approach and its integration in land use planning and management strategies.

Workshop sessions will revolve around these major themes. For each theme there will be an introductory talk and some presentations to highlight case studies and best-practices from ongoing projects and programmes. In addition, panel discussions will work out

- knowledge gaps and propose avenues for joint research (topics 1 and 2),
- curriculum requirements (3.) and
- institutional prerequisites and identify hurdles in the implementation of nexus approaches as well as propose ways to overcome them (4.).

The ultimate goal of the kick-off workshop is to compile a White Book based on the results obtained. The structure of the White Book should reflect the four main topics addressed. This White Book may represent a roadmap for research and action with respect to the nexus approach and of issues to be taken up in future workshops and conferences.