Concept Note for the Workshop

Developing water, energy, and land nexus scenarios for the Indus Basin

Integrated Solutions for Water, Energy, and Land (ISWEL) project
29-30th May 2018, Vienna, Austria

Background

This workshop is organized in the context of the Integrated Solutions for Water, Energy, and Land (ISWEL) project, led by the partnership between the International Institute for Applied Systems Analysis (IIASA), the Global Environment Facility (GEF), and the United Nations Industrial Development Organization (UNIDO). The main goal of ISWEL project is to assess cost-effective solutions to meet future water, energy and lands demands under a number of different socioeconomic and hydro-climatic pathways. The project takes a global approach but it also zooms into two transboundary basins facing important development and environmental challenges: The Indus and the Zambezi.

To accomplish its main goal, a next-generation of tools is now in development and are being linked together into a systems analysis framework, which will be suitable to model and quantify synergies and trade-offs for meeting water, energy and land demands across scales. To ensure that project tools and outcomes contribute to developing capacities and knowledge for nexus management, significant efforts are being allocated to engage with a wide range of stakeholders, particularly within the basins. To this end, a number of workshops have been planned in each basin with the purpose of:

- Identifying country and basin challenges, priorities, and trade-offs in relation to water-energy-land nexus
- Build a range of stakeholder informed scenarios of water-energy-land futures to gain understanding of the consequences of different decisions and what opportunities exist to maximize sectorial and transboundary co-benefits
- Support the development of local capacities in nexus research and management
- Cooperate with other organizations and institutions pursuing the implementation of a nexus agenda

About IIASA

Founded in 1972, IIASA is an international scientific institute that conducts policy-oriented research into problems that are too large or complex to be solved by a single country or academic discipline. Problems like climate change that have a global reach and can be resolved only by international cooperative action; or problems of common concern that need to be addressed at both the national and international level, such as energy security, population aging, and sustainable development. Funded by research funding agencies in Africa, the Americas, Asia, and Europe, IIASA is independent and unconstrained by political or national self-interest. The IIASA mission is to: *Provide insights and guidance to policymakers worldwide by finding solutions to global and universal problems through applied systems analysis in order to improve human and social wellbeing and protect the environment*

Purpose

This will be the second out of the three stakeholder workshops planned in the Indus Basin for the phase I of the ISWEL project (2017-2019). The first workshop consisted of two country meetings (New Delhi, 23 March 2018 and Lahore 23 March 2018), and each meeting brought together about 25 national representatives, with the purpose of identifying the main challenges and opportunities the two riparian countries have with regards water, energy and land and its interlinkages (*nexus*).

The purpose of this second workshop is to build on the first meeting bringing now together experts and stakeholders from the four riparian countries, to jointly discuss desirable futures and pathways in the Indus basin and its riparian countries for the management of water, energy, and land.

The workshop is based on scientific approach but it also aims to produce policy relevant results. Its ambition is to contribute solutions to otherwise intractable problems. Specific tools and methods will be offered to participants but the aspirations of what can be achieved depend on participants' engagement and imagination. The objectives will be presented but participants are invited to build on them. Indus river situation is full of difficult challenges: what are the best possible pathways that can be followed? With sound science, using multiple scenarios the workshop aims to provide meaningful answers to this and other pressing questions.

Objectives and expected outcomes

The main goal of this workshop is to co-develop in partnership with sectorial experts from all four riparian countries:

- 3-4 different visions and pathways to desirable futures for the Indus basin taking into account different global developments and climate scenarios.
- Enhanced and shared understanding on the implications of different investments in the basin and their consequences cascading through the WEL sectors.

Timeframe and Venue

The scenario workshop will take place on the 29-30th of May 2018 at the "*Conference Room Quartier Belvedere- Your Office*". Address: Gertrude Fröhlich Sandner Straße 3, 1100 Vienna

Proposed methodology

The scenario process will start from reviewing the current situation in the basin and its key challenges and opportunities followed by specifying the "business as usual" scenario. Based on this understanding participants will set basin goals and future visions (for desirable futures in 2050). This will be combined with development and selection of nexus solutions, utilizing identified synergies. Finally, challenges and tradeoffs will be identified with strategies to overcome them, contributing to inspiring and realistic future pathways for the Indus basin.

The scenario development workshop will utilize extensively the process known as a "policy exercise". Policy exercises, also known as open simulations, combine computational models and participation of real actors. They mediate collaboration between stakeholders and scientists in analyzing how problems emerge in complex systems, where points of policy intervention may lie, that lead to robust and credible future pathways.