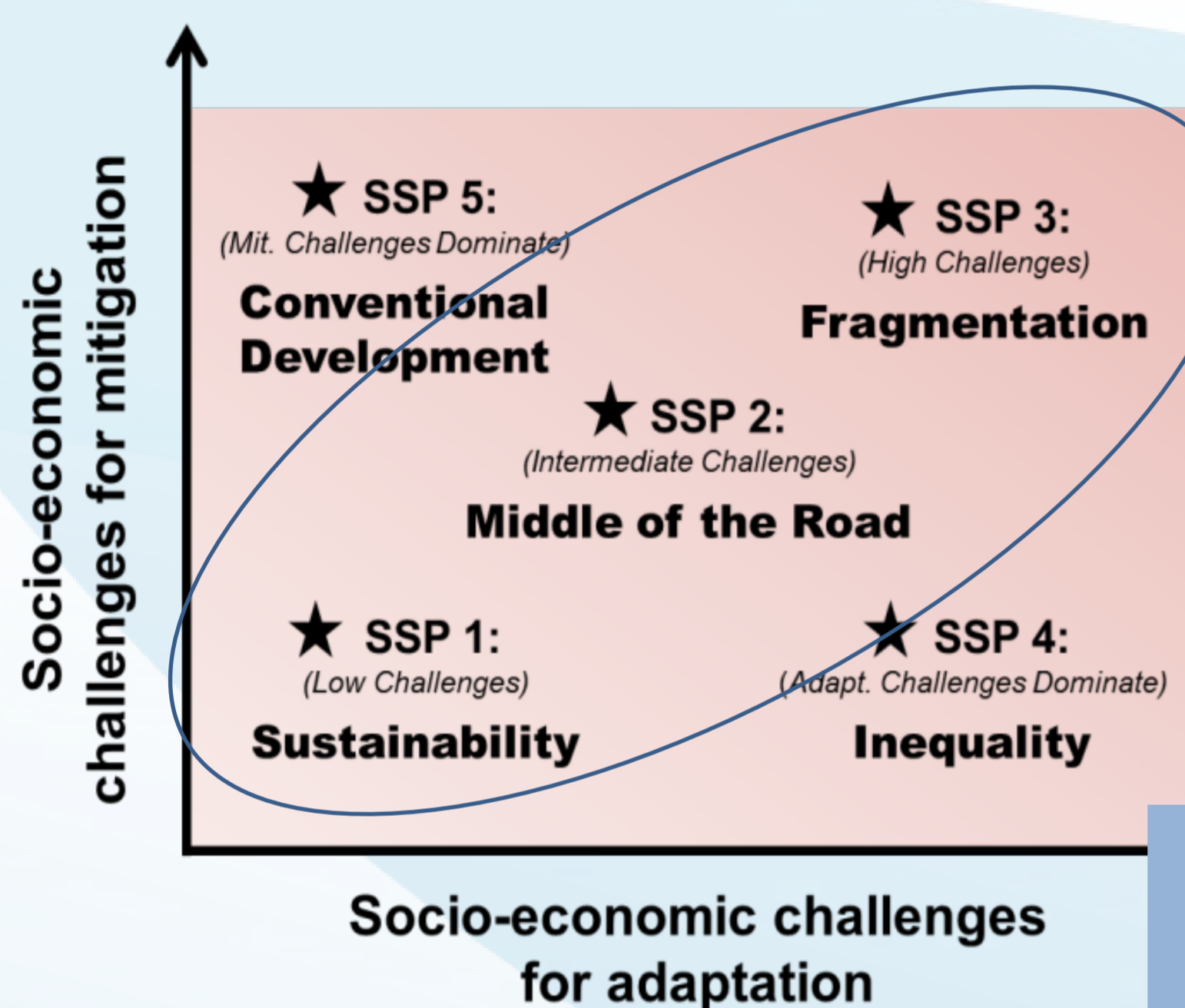


Introducing IIASA's Water Futures and Solutions Initiative

Water Futures and Solutions (WFaS) is a cross-sector, collaborative global initiative which develops scientific evidence and applies systems analysis to help identify water-related issues and solutions. In turn these can be used to inform investments, policies and management practices that work together consistently across scales and sectors. At its core is a stakeholder informed, scenario-based assessment of water demand which are used with ensembles of state-of-the-art socio-economic and hydrological models to test the feasibility, sustainability and robustness of solution pathways.

Developing narratives of the future with Shared Socioeconomic Pathways



The SSPs representing different combinations of challenges to climate mitigation and adaptation

Extended "water narratives" as basis for the quantification of selected variables required for the global water models

SSP1: The world is moving toward sustainability

SSP characteristics

- Improved resource use efficiency
- More stringent environmental regulations
- Rapid technological change is directed toward environmentally friendly processes
- Management of global commons improves.

Implications for Manufacturing Water Use:

- Manufacturing industries with efficient water use are favored.
- Enhanced treatment, reuse of water, and water-saving technologies;
- Widespread application of water-saving technologies in industry

Second phase: Going regional

In its future work, WFaS will zoom in, on particular issues and regions. Uganda, being represented in the WFaS Scenario Focus Group through the Director of Water Resources Management, expressed interest to continue working with IIASA in the identification of solution pathways for water security. More recently discussions at a regional scale focused on the Lake Victoria with the Lake Victoria Basin Commission and riparian countries have expressed a need for this type of approach.

The work results in the development of a tool to reflect regionally relevant information on water management options and solutions and associated investment needs.



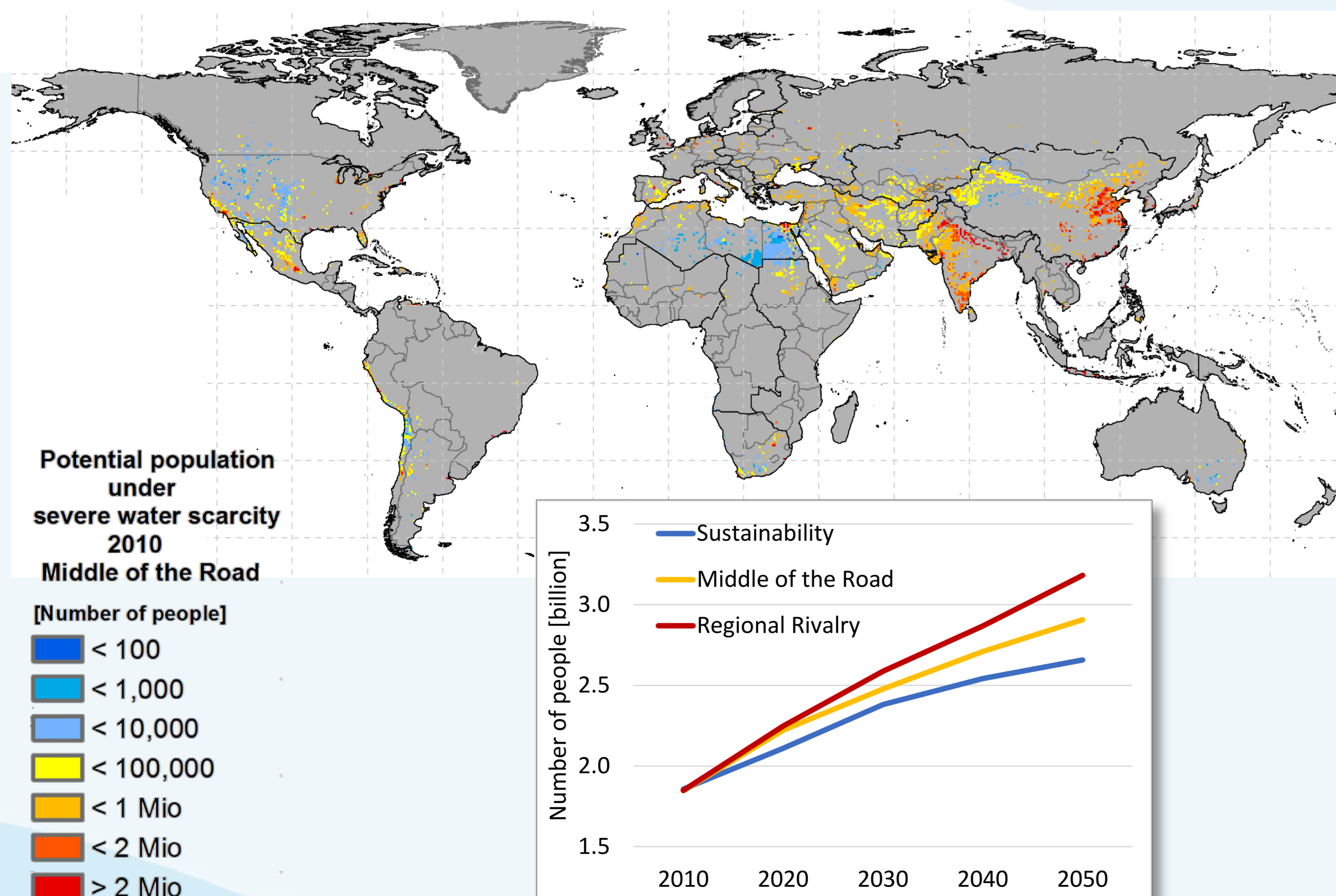
Laxenburg, Austria 14/06/2016. 2nd WFaS Scenario Focus Group Meeting



Mwanza, Tanzania 16/02/2017. Meeting with the Ugandan delegation lead by Florence Adongo, Director at Ministry of Water and Environment, Uganda

First phase: Assessing the global current and future water situation

In the first phase IIASA assessed the global current and future water situation. The world currently faces multiple and complex water challenges that will likely intensify in the future; disrupt economic development, threaten food and energy security, and damage valuable ecosystems. In particular in the context of the SDGs, improved water policies and governance structures, and the adoption of a more innovative technological interventions will all offer solutions. However, managing the water sector in isolation is no longer enough, since water scarcity issues integrate across scales (transboundary and local) and sectors.



Potential Population under severe water scarcity for three scenarios from 2010 to 2050

Partners



Selected references

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