Tackling the challenge of the water food energy nexus in India and Scotland

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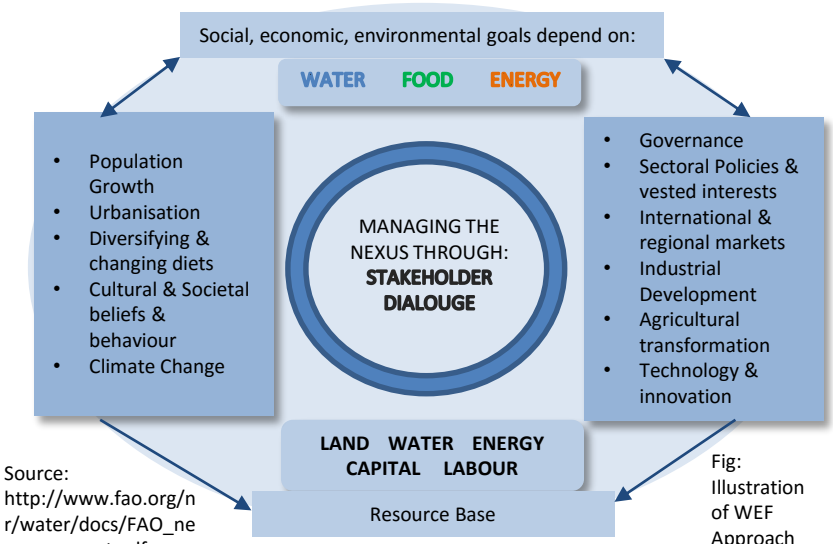
Background

- Understanding Water-Food-Energy Nexus and its interrelationships plays a key role in the management and optimal use of the Natural Resources(WFE).
- In context to India, it is facing challenges like food security, water quality and quantity management and energy production. Anthropogenic pressures and climate change are worsening the situation.
- The WFE Nexus approach addresses the following issues:

Lack of coordination between the sectors at the National, state and basin level.
Inconsistencies between policies and regulatory frameworks.
Lack of knowledge exchange among the stakeholders for better decision making

Research Question: How can this approach will help in up-scaling the local water management interventions and support in evaluating future policy options in line with the global targets?



Source: http://www.fao.org/nr/water/docs/FAO_nexus_concept.pdf

Fig: Illustration of WEF Approach

Methods

Evaluating existing WEF interlinkages *Literature Review, primary and secondary data collection*

Evaluating the existing Legal frameworks *Literature Review*

Creating a Platform for Stakeholder Engagement and Knowledge Exchange at various levels to support Research and Decision Making.

Socio-Ecological System Modelling: Evaluating the impacts of human activities and interventions on the overall nexus *Situation Analysis and projections*

Comparative evaluation of the Legal frameworks in India and Scotland: Develop integrative decision support tool *Stakeholder Dialouge*

Evaluating Potential Future Policy for watershed management within the context of WFEN in India;
Building a Management tool to address the challenges of WFEN within the selected catchment.

Expected Outcomes

- Understanding for the inter-linkages between the water food and energy sectors.
- Practical guide for the water resources management at the basin level.
- Platform for knowledge sharing
- between India and Scotland.
- Contribution to the upcoming policies and guidance for the future policies for Sustainable resource management in India.
- PhD will contribute to the Hydro Nation objectives.

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