



NPD on Water Policy in Kyrgyzstan 13th SC Meeting

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EXPERT WORKSHOP ON TOOLS FOR MAKING AND IMPLEMENTING DECISIONS ON WATER, FOOD AND ENERGY SECURITY NEXUS IN EECCA AND FUTURE PLANS

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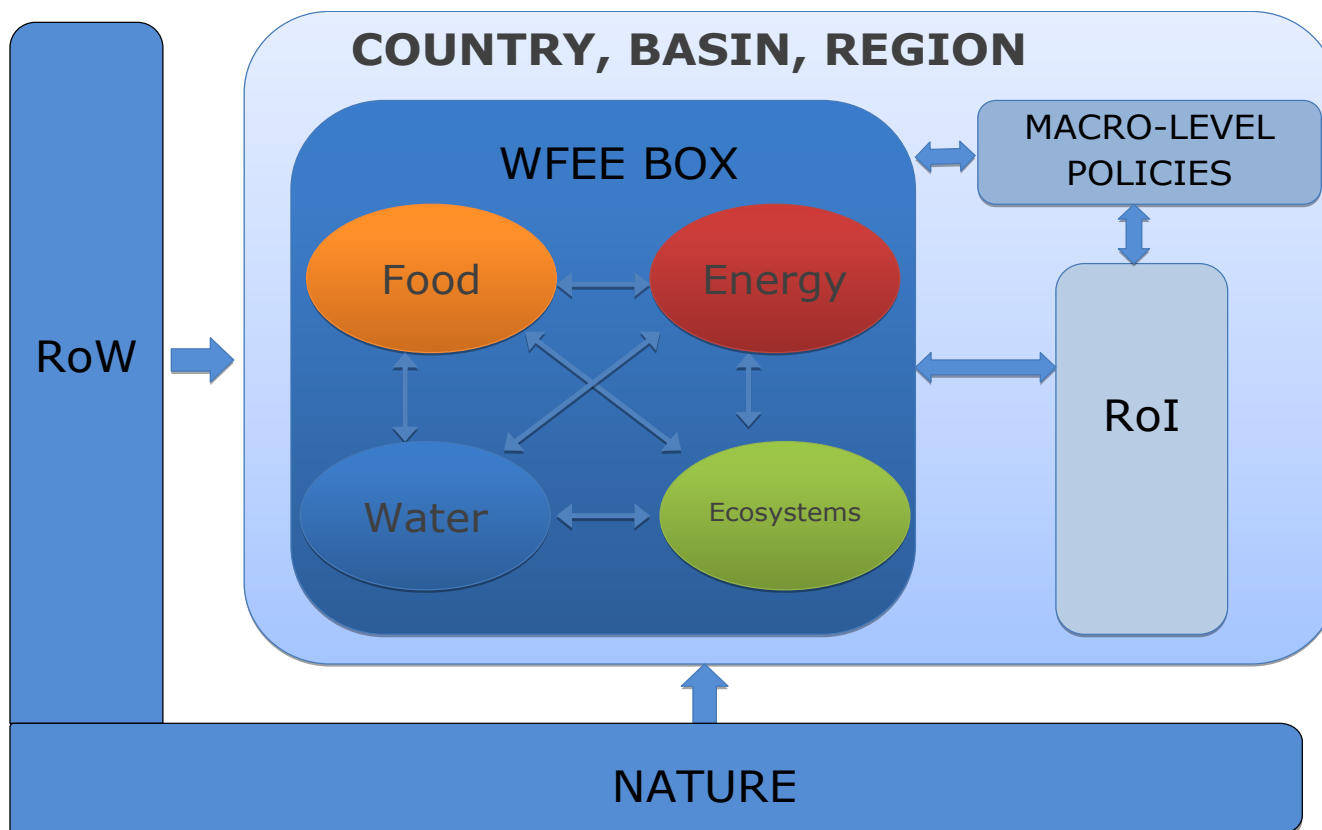
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B. Expert workshop on DSTs for the Nexus (02-03 July 2015; in OECD HQ in Paris)

- **Water, Food and Energy security issues are topical for EECCA**
- **Proposed Analytical Framework :**





Inter-linkages, risks and trade-offs, and synergies: plenty and complex

(Sub-)sector	Impact on water or energy, trade-offs and risks, synergies and benefits, etc.	Possible solution (to diminish trade-offs or negative impacts, or increase synergies and net benefits)
Irrigated agriculture (agri-food)	<u>Water Quantity</u> : in most EECCA (except Russia) this is by far the largest fresh water consumer (consumes up to 70-95% of all fresh water abstracted)	Demand management measures, e.g. by introducing: <ul style="list-style-type: none"> - Modern irrigation techniques (drip irrigation etc.) - Less water intensive crop; - Re-use of return waters; - Using real time data from satellites for assessing irrigation needs of specific fields
	<u>Water Quality</u> : Return water might be polluted with agri-chemicals, BOD, etc.	Treatment of return waters
	<u>Energy</u> : Significant user of electricity for pumping irrigation water	Shift from lifting water to gravity flow where feasible; Energy efficient pumps
Energy: Thermal power plants	<u>Water Quantity</u> : Thermal power plants consume some water (e.g. for preparing coal for burning) and are large non-consumptive users of water for cooling	Use of sea water for cooling instead of fresh water, where feasible Dry (air) cooling
Energy: producing bio-fuel	<u>Argi-food and land management</u> : production of bio-fuel from crop competes for arable land with food production + increases demand for water	Producing bio-fuel (e.g. ethanol or methane) from bio-degradable waste rather than from crop



Criteria for selecting tools

- tools should potentially add much value to policy dialogues and work on the nexus in EECCA
- tools should not be too complex; a computer-based model should be explicit and transparent enough
- input data is minimal (for the given needed functionality of the tool) and generally available, preferably easily available from existing national statistics and reporting systems;
- fine-tuning or developing the tool does not require much resources (low-cost options);
- using the tool does not require highly qualified expensive international experts or knowledge of programming, codes, formulas (local capacity development);
- preferably, tools should be open (open source code) for further improvement and fine-tuning to local needs by local experts or decision-makers themselves.



Candidate tools by type

- **Definitions, indicators & criteria of water, food and energy security**

including indicators to measure the present status of water, food and energy security and progress towards a greater levels of security

- **Information instruments** (data base and knowledge base)

- **Principles, Guidelines and Methodologies**

Examples: OECD Principles for Water Governance, and for PSP in the water sector; the *Almaty Guiding Principles*; nexus assessment methodology etc.

- **Standards and other Regulation and Legislation**

Examples: WFD; OECD Recommendation on water; SNIPs for WSS systems, draft ISO standard on Multiple Resource Productivity etc.

- **Computer-based models** (e.g. BEAM, IMAGE, IIASA toolkit, FEASIBLE)

- **Tools for local capacity development, awareness raising and stakeholder engagement, consensus and ownership building**



Future plans

- **Work Plan** (KR may wish to express interest in certain activities)
- **Work on indicators & criteria of water, food and energy security** in Central Asia (in Kyrgyzstan?)
- **New technical regulation on small-scale WSS systems** (Moldova)
- **Draft Guidelines for Rural WSS sector reform** (Kyrgyzstan)
- **Better coherence between agri-food and water policies** (Kyrgyzstan)
- **Computer-based model for assessing MPWI to maximise its contribution to economic development; and to water, food and energy security:** *an open source model (in the public domain)* will be developed in Kazakhstan
- **Assistance to EaP countries in implementing SGDs on water:** WFE security is one of policy objectives of the **EUWI+ for EaP** project (2016-19)
 - ➔ Other EECCA countries could benefit from this work, by using the tools and replicating recommendations



Thank you for your attention!

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www.oecd.org/env/outreach/npd-water-eecca.htm