



NEXOGENESIS
STREAMLINING WATER RELATED POLICIES

NEXOGENESIS 4th Stakeholder Workshop:

“Water-energy-food-ecosystem Nexus: from interlinkage modelling to decision support tool and stakeholder agreement for integrated management of the Lielupe River Basin”

7 February 2024, Riga, Latvia



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003881.



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NExus Policy Assessment Tool – NEPAT

Why do we need it?

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07.02.2024, Riga, Latvia

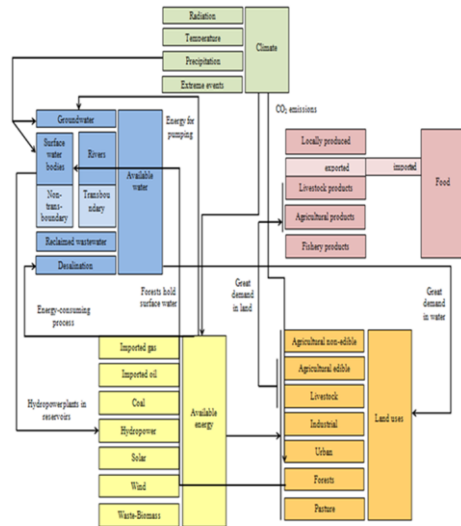
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Nexus System Thinking and Integration

WEFE Casual loop maps



Model

SDM - a tool that connects quantitative data from the sectors of water, energy, food, ecosystem and climate change by simulating the interrelations between them

Stakeholder involvement

- Identification of the:
- ✓ critical components of the WEFE nexus
 - ✓ validation of the causal loop maps
 - ✓ policy interventions and coherence assessment
 - ✓ policy instruments to be included in the modelling

Products

- Complexity science decision support **NEPAT tool**
- Quantified interlinkages between the WEFE sectors
- Assessment of the impacts of policies in related to the nexus sectors
- The WEFE nexus footprint
- Climate Projections/ Different scenarios
- Sensitivity analysis

End Users

- ✓ Authorities
- ✓ Policy makers at local level
- ✓ Universities
- ✓ NGOs
- ✓ Farmer associations
- ✓ Water utilities
- ✓ Other organizations

Conceptual model agreed

System Dynamics Model baseline results presented yesterday

Policy instruments discussed yesterday

NEPAT tool intro today

Networking session today



Multi-purpose application of NEPAT

- **Helps to facilitate Nexus thinking** - not so much quantitative scenarios and not promising solutions for all problems – it rather shows robust results and trends
- Highlights the impacts of **integrated policies vs. silo policies** and
- **bridges national and local level approaches**

It could be used:

- to update e.g., **water management plan** or a **specific policy**
- to **promote a dialogue** with stakeholders incl. policy makers
- to provide coherent and convincing narratives for **supporting the change**
- as a **training tool**

- The value is the **scientific method behind it**.
- Reflects real policies rather than wishful thinking showing e.g., possibilities to reduce pollution. Policies can be added, new SDMs created for new cases, etc.
- The NEPAT is a communication tool that helps in the **visualization** of the effects

