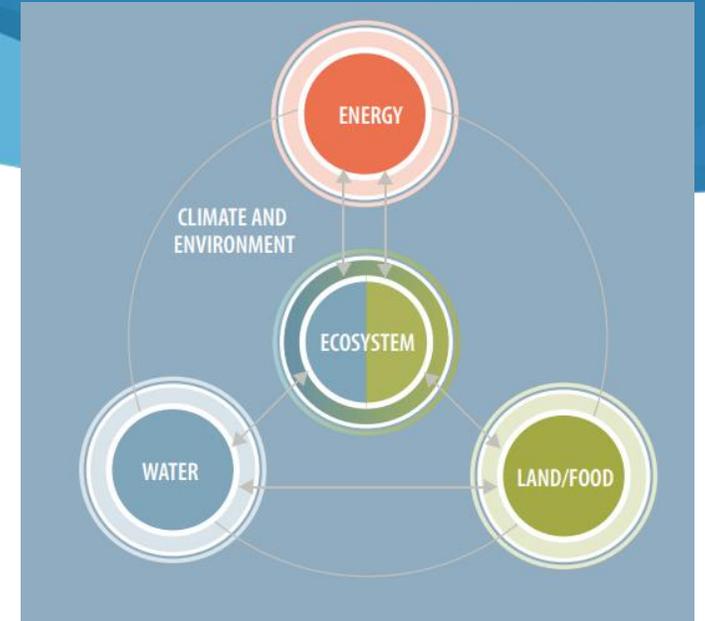


Nexus approach to natural resources management

Ms. Annukka Lipponen

Environmental Affairs Officer

United Nations Economic Commission for Europe
(UNECE)

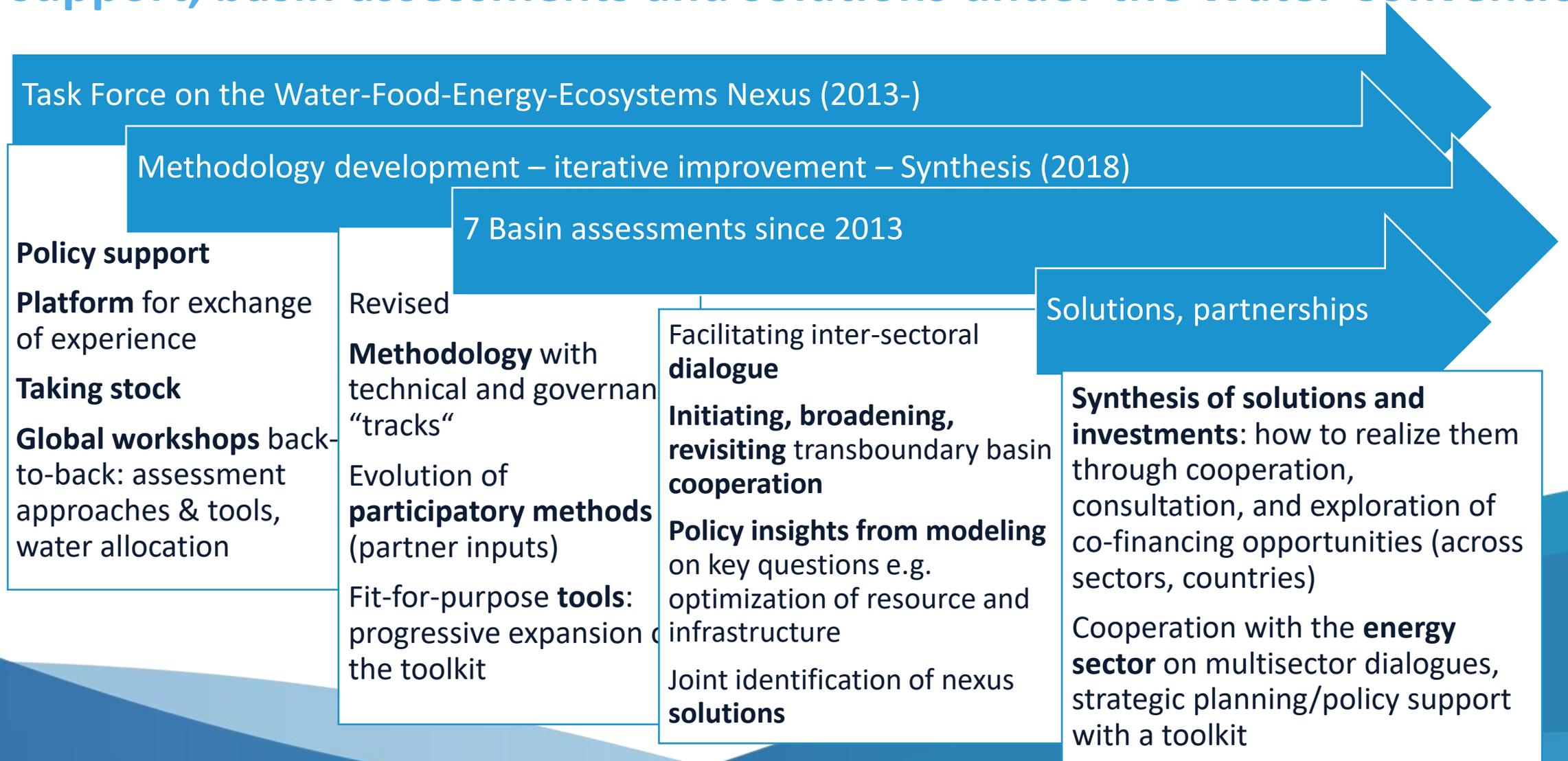


What is the “nexus” and why do we need a nexus approach now?

- Water, energy, and food security are *interlinked*. Without coordination sectors and countries compete for common resources.
- Sustainable Development Goals (Agenda 2030): Evidence of trade-offs between sectoral objectives
- Climate action & post-covid recovery: Need to invest effectively and efficiently, sharing costs and multiplying benefits
- “Nexus” approach aims at reconciling the interests of the different sectors and co-optimizing, while respecting environmental needs and human rights, and improving governance.



Backbone of UNECE nexus work: assessment methodology, policy support, basin assessments and solutions under the Water Convention



Example: Nexus issues in the Drin River Basin

Sector	Water	Agriculture and use of land resources	Ecosystems and the environment
Energy	<ul style="list-style-type: none"> - Impact of current and future hydropower generation (taking into account new investments) on the basin hydrology, including on floods - Impact of energy policy on water resources - including efficiency, non-hydro renewables, and trade and related transmission projects. 	<ul style="list-style-type: none"> - Role of biomass production in forest/land management - Integration of energy infrastructure in broader spatial planning 	<ul style="list-style-type: none"> - Impact of logging on forest degradation, erosion, and sedimentation - Incoherencies between clean energy/climate action, sustainable development, and environment preservation
Water		<ul style="list-style-type: none"> - Water demand for irrigation, likely to increase due to climate change & reg. trade 	<ul style="list-style-type: none"> - Poor/inexistent wastewater treatment, exacerbated by urbanization and tourism (at given locations and seasons)
Agriculture and use of land resources			<ul style="list-style-type: none"> - Agricultural pollution and eutrophication of water bodies - Conversion of natural habitats into agricultural land, loss of habitats - Illegal fisheries, hunting and logging - Poor/inexistent solid waste managem. - Sand and gravel extraction

Natural Resource Nexuses in the UNECE region – Insights from an analytical flagship publication

Pressure on natural resources continues to increase

Increasing demand, changing climates and technologies, urbanisation, growing populations, societal demand and inequalities, globalisation and other megatrends are putting pressure on natural resources, most of which are not renewable.

Climate change may reduce agricultural productivity by up to a third. Significant knock-on effect on energy and water demand from increased demand on food. Impacts on natural ecosystems and biodiversity, economic growth, and global food security as well as threaten human health.

Calling for integrated and sustainable natural resource use

Taking a nexus approach - integrated planning, management, and governance of natural resources – needed & provides opportunities

Natural Resource Nexus Hotspots identified

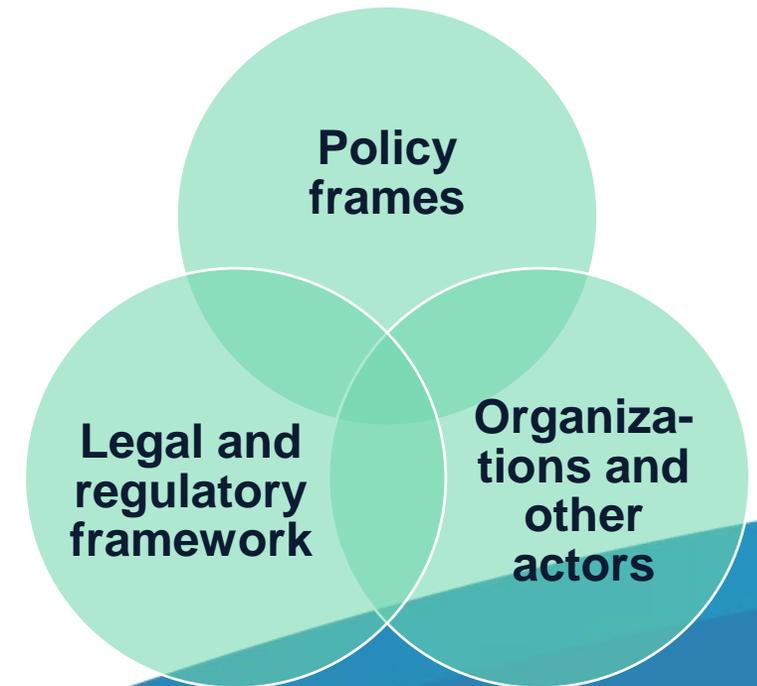
UNECE

Natural Resource Nexuses in the ECE region



To-do list for improving inter-sectoral cooperation: avenues for action

- **Overcoming “silos thinking”** in policy making and resource management -> reduced friction between sectors and countries, reduced economic losses from inefficiency, enhanced sustainability
- Optimizing use of **infrastructures** (benefits to different sectors, lower resource use intensity possible...)
- **“Nexus-proofing”** the legal and regulatory framework, institutions and actors at multiple levels, policies
- Facilitating **information sharing and consultation** - > considering different interests & alternatives
- Highlighting the broad **benefits** of cooperation



Leveraging sustainable management of natural resources: UNECE's nexus-relevant tools can help

- Taking a holistic and long-term approach, considering not only intersectoral impacts but also environmental, social, institutional and economic dimensions; not now but also in the future (accounting for climate change).
- Contributing to implementing the SDGs and targets of Agenda 2030, in conformity with the principles of the United Nations.
- UNECE Tools include conventions, protocols and soft-law instruments; a charter and a policy platform, standards and good practice guidance, strategies, an accounting system, data connected tools and dedicated projects and capacity-building.
- Engaging authorities and key stakeholders as part of finding solutions through relevant frameworks.
- Climate change, green economy and sustainable development provide frameworks for coordinated action as well as financing and partnerships

Providing relevant tools based on dialogues and practice: Nexus & Renewable Energy

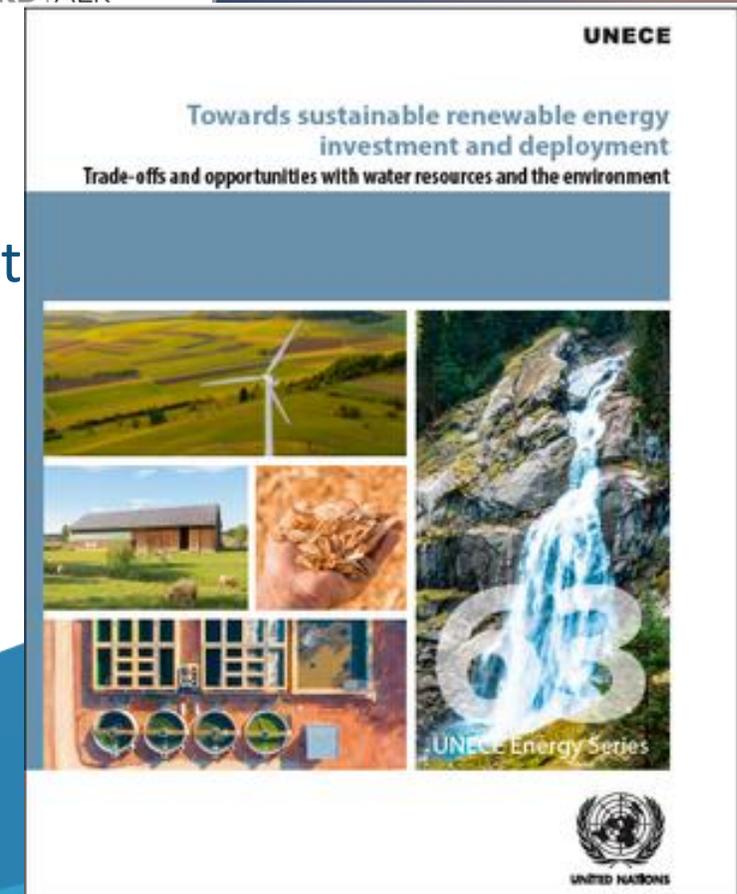
- Cooperation between Environment and Sustainable Energy Divisions
- Policy Brief on RE, nexus and SDGs (UNECE, 2017)
- RE “Hard Talks” linking to actual energy policy questions and orienting future investment (Drina Nexus Assessment follow-up: Bosnia and Herzegovina 2018, Serbia 2019)
- **Sustainable RE Deployment – a tool for Policy Makers (UNECE, 2020):** guidance for policy development or revision, strategic planning and projects



Deployment of Renewable Energy:

The Water-Energy-Food-Ecosystem Nexus Approach
to Support the Sustainable Development Goals

Good practices and policies for intersectoral
synergies to deploy renewable energy



Identifying nexus issues and solutions (and related benefits) through dialogue and analysis

Assessment of the water-food-energy-ecosystems nexus in Albania applies the methodology developed under the UNECE Water Convention for analyzing issues between sectors, considering both technical resource management issues, and the governance

