



The Water Convention: supporting transboundary cooperation across sectors

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The Water Convention



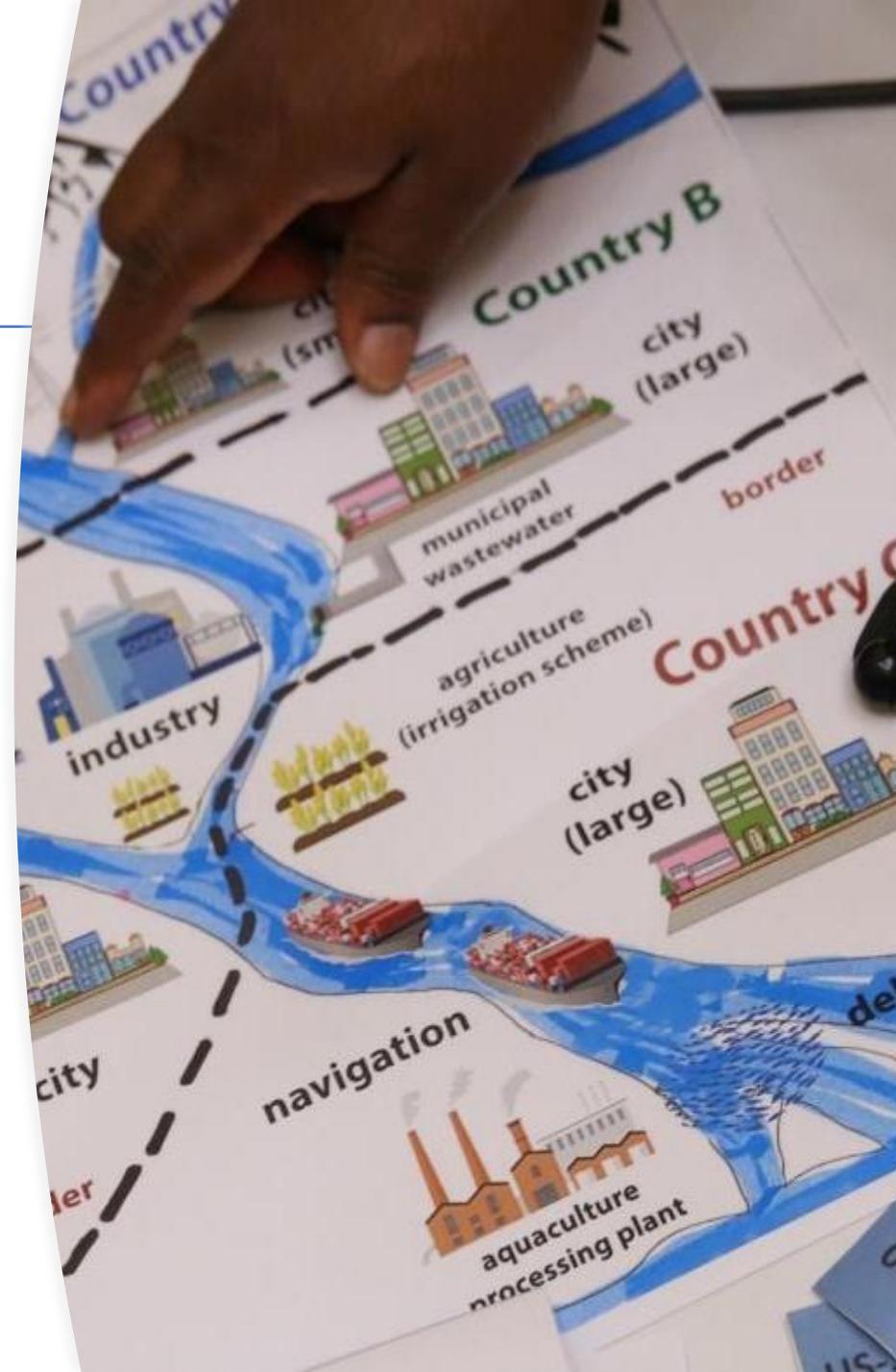
A **legal and institutional framework** for transboundary water cooperation contributing to sustainable development, international peace and security.



A **unique platform** to discuss progress of transboundary water cooperation worldwide under the umbrella of the United Nations

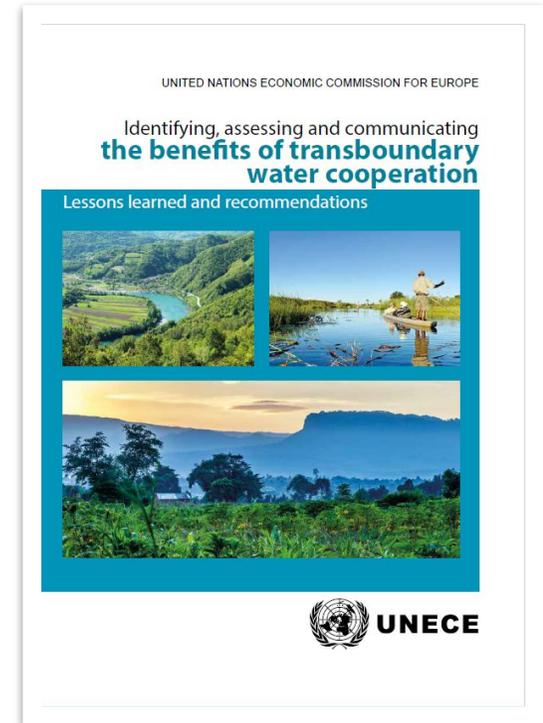


Opened to all interested countries, with **more than 130 countries** exchanging experiences and knowledge to prompt progress in cooperation

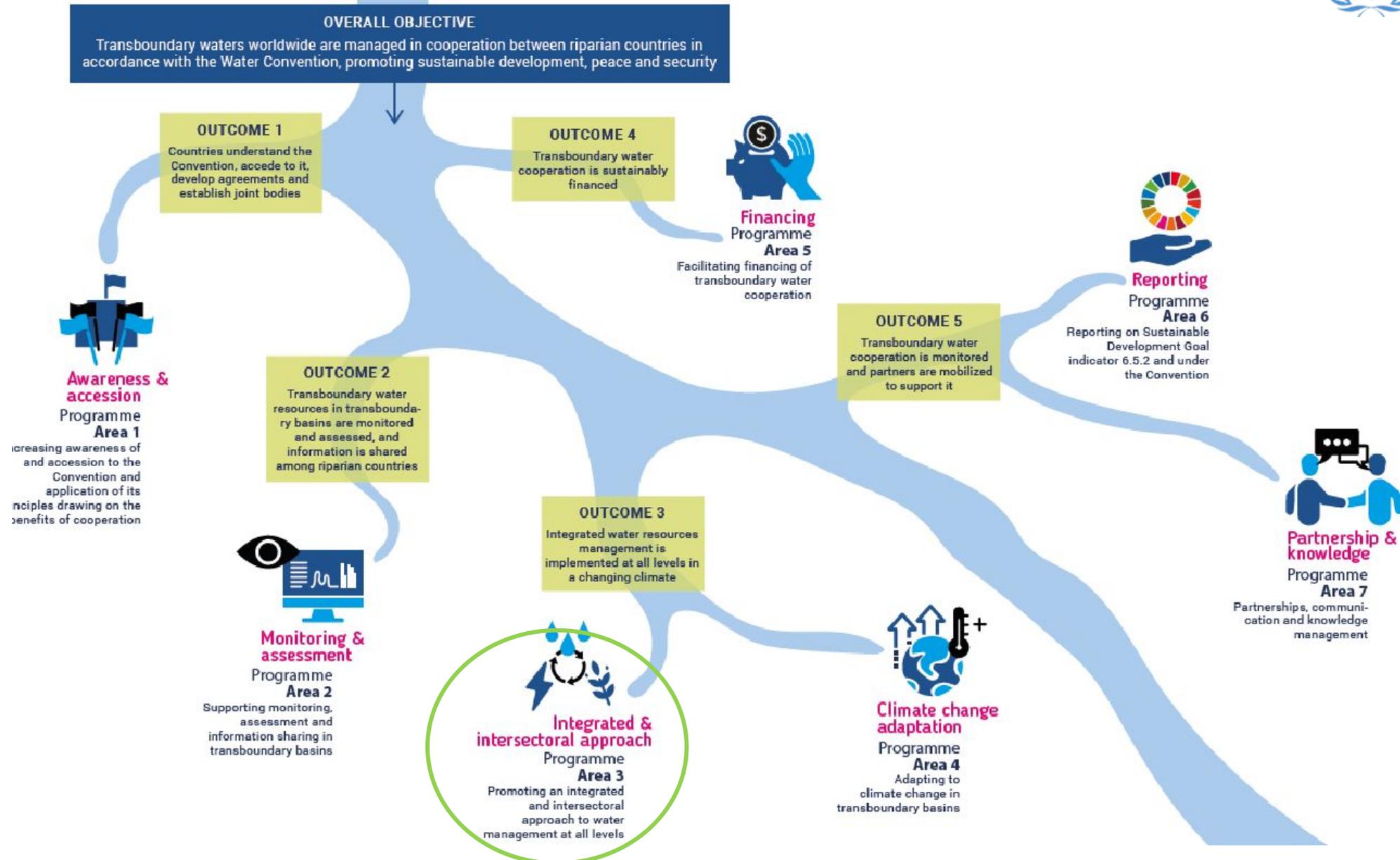


Main areas of work under the Water Convention

- **To support the creation of basin organizations to strengthen regional stability and integration** (more than 90 agreements entered into force since the entry into force of the Water Convention)
- **To help country in adapting to climate change** through a basin wide approach (more efficient, joint measures)
- **To support the reduction of trade-offs and cross-sectoral conflicts** (optimize the use of resources through cross-border cooperation)
- **To contribute to cooperation and peace** (inspire cooperation also in fragile areas)



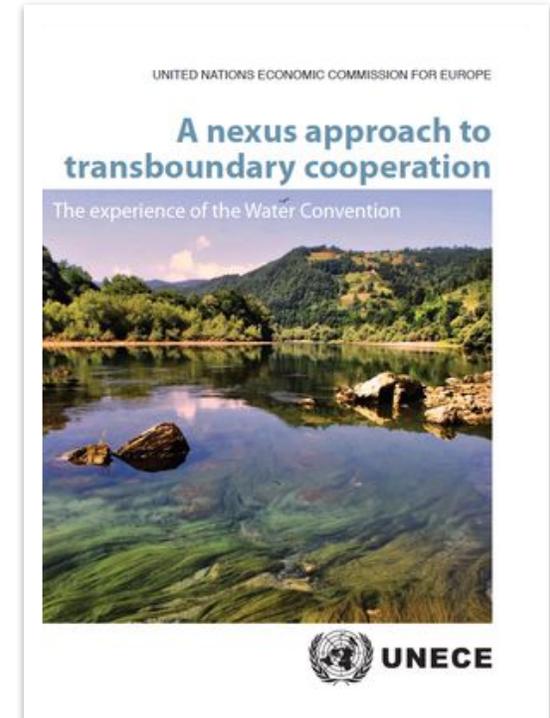
Programme of work for 2022-2024



Rationale of nexus work under the Water Convention



- Motivating **information sharing and consultation in transboundary contexts**, and considering alternatives
- **Overcoming “silos thinking”** in policy making and natural resource management:
 - reduced friction between sectors and countries
 - reduced economic losses from inefficiency
 - enhanced sustainability
- **Co-optimizing the use of existing and new infrastructure**:
 - benefits to different sectors
 - lower resource use intensity
- Highlighting the **broad benefits of intersectoral and transboundary cooperation**



Activities on Nexus: Global Task Force on Transboundary Nexus



- Objectives of the Task Force:
 - oversee nexus activities under the Convention
 - provide a **global platform for sharing knowledge and experience in integrated natural resource management in shared basins.**
- **Includes Parties and non-Parties**, country authorities and basins, experts, partner organizations
- created in 2013 and chaired by Finland
- Meets regularly (1-2 years) – next meeting **12-13 December 2022!**



Activities on Nexus: Basin Assessments



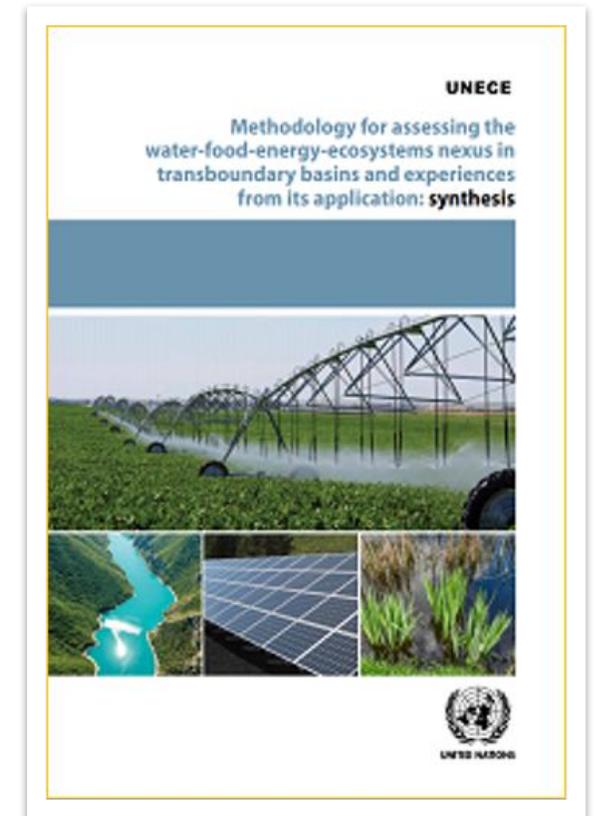
* United Nations administered territory under the UN Security Council Resolution 1244 (1999)

Basin Assessment	Main focus
Alazani/Ganykh River Basin (Caucasus)	Rural/agricultural development, flash floods, hydropower, energy trade, erosion and sedimentation
Sava River Basin (Western Balkans)	Hydropower, renewable energy, land use, irrigation, environmental needs of water, navigation
Syr Darya River Basin (Central Asia)	Flow regulation, energy production and trade, climate change, renewable energy and energy efficiency, food production and trade, regional cooperation
North-Western Sahara Aquifer System (North Africa)	Groundwater abstraction, groundwater quality, irrigation (including solar), renewable energy, soil salinization, rural development, agricultural transformation
Drina River Basin (Western Balkans)	Hydropower, renewable energy, rural/agricultural development, water quality, benefits of cooperation
Drin River Basin (Western Balkans)	Hydropower, floods, biomass for energy and sustainable forestry, rural/agricultural development

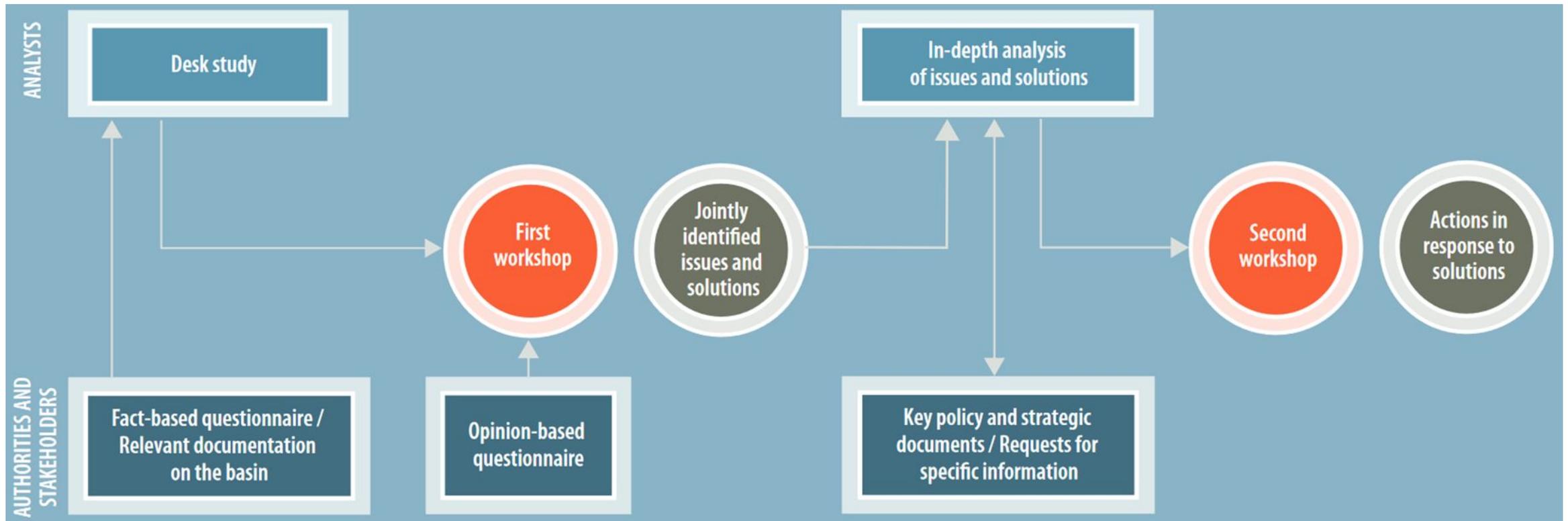
Assessments: the methodology

Need for a **flexible methodology**:

- **Adapts to the context and the issues specific to the basin**
 - Relevant boundaries and scales (geographical/physical, governance)
 - Existing legal, institutional frameworks and past experiences
 - Existing models, data available/data gaps
 - Existing strategies, policies, action plans and programs
- Applicable to **surface water basins and aquifers**
- Provides **participatory intersectoral assessment** at transboundary level informed by analysis, prepared in close cooperation with national governments



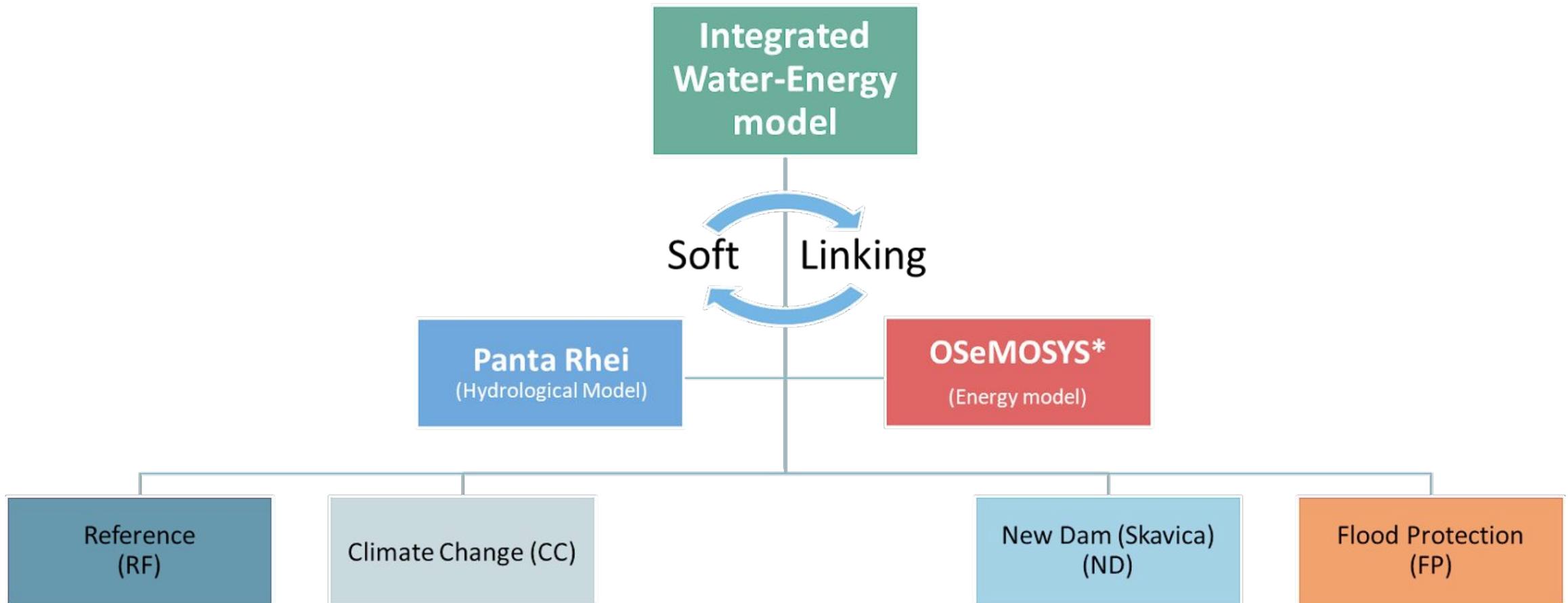
Assessments: the participatory process



The impact of Nexus Assessments

- Facilitating **inter-sectoral dialogue in transboundary basins**: joint prioritization of issues, elaboration of solutions and synergetic action
 - **Initiating, broadening, revisiting transboundary basin cooperation** (water management) and strengthening links with regional cooperation frameworks (energy, agriculture, environment)
 - **Policy insights from modeling** on key questions e.g. optimization of resource (land, water/dams for food and energy production) and infrastructure (hydro, flood & droughts) in long-term planning
 - **Joint identification of cross-sectoral and transboundary nexus solutions** e.g. synergetic RE projects, sustainable rural development, etc. and discussing necessary nexus investments
- “Nexus-proofing” of legal, institutional and policy frameworks; strategic infrastructure...

Case study: the Drin Nexus Assessment

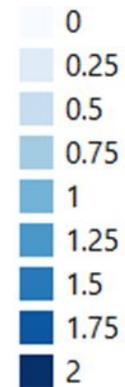


* **OSeMOSYS**: **O**pen **S**ource energy **M**odeling **S**ystem.

Flood protection scenario



Water Depth BAU Q10



Water Depth Buffer 20% Q10

Energy and hydrological systems

- The Model – main questions:
 - What are the costs and benefits (for operators) in operating HPPs in a coordinated way between the countries in the Drin cascades?
 - How to reach renewable energy targets in all riparian countries, and at which cost? Is hydropower in the Drin cost competitive, if compared with other renewable energy sources?
 - What is the potential for electricity trade among different countries in a region? And what role does hydropower play in that?
 - What is the impact of keeping larger flood buffers in the dams on electricity generation in each HPP and in each country?
 - What is the impact of the new HPP (Skavica) on the production of downstream HPPs?
- Economic and Governance analysis:
 - Broader costs and benefits of improved hydropower cooperation (for associated authorities, actors, and stakeholders); costs and reliability vis-à-vis climate change related to hydro developments in the basin vs other/non-hydro renewables;
 - The changes/improvements needed at the level of governance (beyond hydropower sector) to overcome the barriers to cooperation and to operationalize solutions.

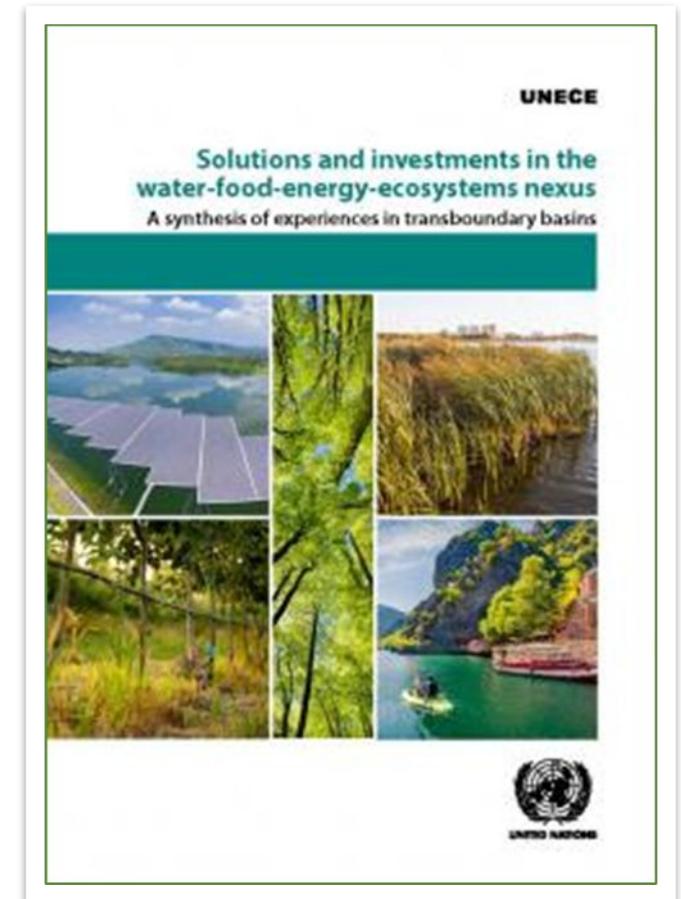
Final highlights from the Drin Nexus Assessment



- **Climate change** will impact hydro generation in the Drin basin causing 6-14% decline in the coming **two decades**.
- The benefits of **Skavica hydropower plant** will not be limited to flood mitigation but it will also **improve the energy independency**.
- **Changing the operational rule** of the dams to accommodate floods would have a **minor impact** on the security of **electricity supply**.
- However, it has the potential to **spare additional 7-34 MCM** of volume to be used for **flood control**.
- The **savings in terms of flood damages** are **considerable** for small to medium floods.

Nexus Solutions and Investments in Transboundary Basins

- A stocktaking of experience from around the world (2020): a survey, a literature review, inputs from expert consultations and a review of regional nexus dialogues.
- Nexus solutions and investments to tackle issues of: **water quantity, water quality and environment.**
- **36 case studies** analysed to find: common features and trends related to problems and solutions, financing sources and schemes, obstacles to implementation and enabling factors, perceived added value and benefits.
- To implement and upscale nexus solutions and investments in transboundary basins: **basin-level action plans, coordinated strategies and investment plans** (also regional, facilitated by RBOs, IFIs etc) can be important vehicles





**Thanks for
your attention!**

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Water-food-energy-ecosystem nexus | UNECE