



### Background on the work on the water-food-energyecosystems nexus on the Sava and the Drina, and the Concept Note of the Phase II Nexus Assessment Report

Annukka Lipponen, UNECE Consultation on Serbia - online Wednesday 17 February 2021, 9:00–13:30





### Nexus dialogue in the Drina: from identification of issues to formulation of a Nexus Strategy for the basin

#### Sava assessment (2014-2015)

Identification of stakeholders, issues, possible directions for solutions

Governance analysis; modelling water-land-energy nexus Drina assessment (2016-2017)

Clusters of challenges & solutions defined; benefits of coordinated hydropower operation

Assessment of benefits, modelling energy-water nexus

Drina follow-up project (2018-2019)

Recommendations on monitoring, sedimentation, eflows, sustainable energy.

Qualitative analyses

Sustainable Renewable Energy & nexus; nexus investments

Modelling energy-water nexus

Drina Phase II (2020-2021)

involvement of energy and financing institutions, partnership, resource mobilization,

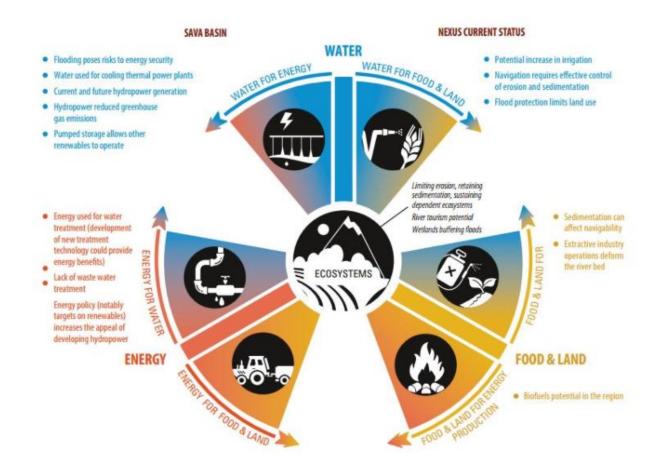
Drina Nexus
Strategy/
Road Map
for political
commitment
beyond water
management

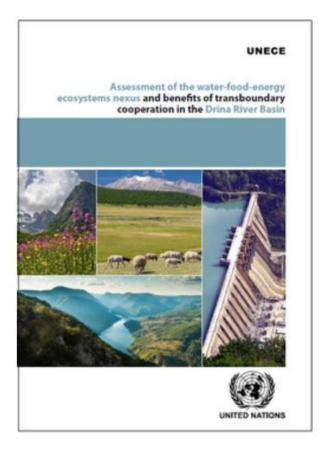
|   |  |  | IIIDact   |  |
|---|--|--|---|--|
| KTH, ISRBC, JRC                               | Italy, ISRBC, GERE, KTH,<br>GEF, World Bank                | Italy, UNECE GERE  | GWP, ADA, World Bank, ISBRC   |  |
| Network forming, sectors meeting & exchanging | Debate with utilities about the benefits; Forums on Energy | High-level Workshop<br>(Ministers and IFIs);<br>UNECE Publication on<br>Sustainable RES &<br>Nexus | Regional level nexus initiative for sharing experience in South East Europe (-> Drin) |  |

# UNECE Reconciling resource uses in transboundary basins: assessment of the water-food-energyecosystems nexus in the Sava River Basin

### **Nexus Assessment of the Sava River Basin (2014-2015)**

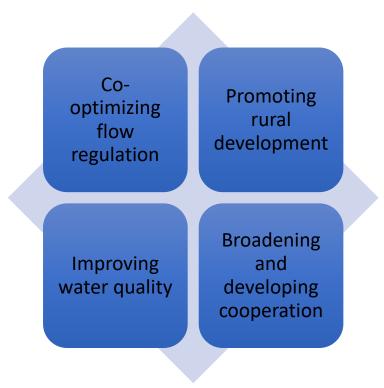
- Identification of nexus interlinkages
- Modelling of energy-water-land nexus (KTH Royal Institute of Technology and Joint Research Centre of the European Commission)
- Network of nexus stakeholders in the Sava basin

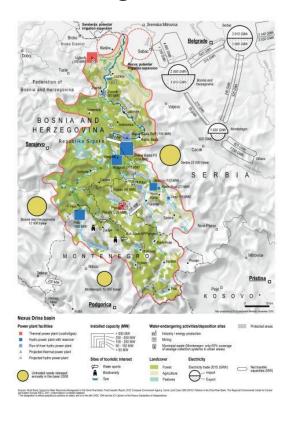




### **Nexus Assessment of the Drina River Basin (2016-2017)**

- Zoom in to specific nexus interlinkages (focus on Drina)
- Modelling of energy-water nexus in the Drina basin (KTH Royal Institute of Technology)
- Assessment of benefits of cooperation (cross-border, cross-sectors)
- Engagement of power companies in the dialogue





### **Drina Nexus Follow-up Project (2018-2019)**

#### **Activities:**

- 1. Review of *monitoring and information exchange* in transboundary cooperation, identification of needs. Analysis of monitoring procedures and mapping of guidance;
- 2. Identification of areas with a deficit and a surplus of *sediment*, producing an erosion map, as well as proposing zones for surveillance and priority actions;
- 3. Desk study of *flow regulation and environmental flows*, review of the situation in the Drina, identifying examples of formal cooperation arrangements and good practices, and determining future formalization options for improving the flow regime;
  - -> establishment of an **Expert Group on flow regulation and environmental flows**, which first meeting was held 11-12 June 2019 in Zagreb, hosted by the International Sava River Basin Commission (ISRBC).
- 4. National multi-stakeholder dialogues to trouble-shoot on *renewable energy* investment and its environmental sustainability issues.
  - -> Renewable Energy Hard Talks (multi-stakeholder dialogues aimed at uncovering barriers and opportunities to renewable energy) focusing on nexus trade-offs and opportunities, one in Bosnia and Herzegovina (2018) and one in Serbia (2019).

### High-Level Workshop "Action across sectors and borders for sustainable future of the Drina River Basin" – Belgrade, Oct 29, 2019

## UNECE workshop presents recommendations for sustainable future of Drina River Basin

Region/EU October 31, 2019 | Comments: 0 Author: Balkan Green Energy News



#### Ivan Karić: We share not only the beauty of the Drina, but also responsibility

"The Drina is one of our most beautiful rivers, and citizens of Montenegro, Bosnia and Herzegovina and Serbia are privileged to live by it. However, we also share the responsibility for managing the Drina, and we need to jointly ensure its sustainable future." – State Secretary at the Ministry of Environmental Protection of the Republic of Serbia Ivan Karić.



#### Discussion evolved around two questions:

- How to better balance development, considering energy generation, land management and water use, and sustainability, including the environment, in the basin?
- What is necessary to achieve investments that provide benefits for multiple sectors and that, as such, can be considered "nexus investment"?
- -> High level **Statement from the workshop**: an important first step towards the political commitment to cooperate at transboundary level on the sustainable development of the Drina River Basin

### Why it is important to continue the water-energy dialogue

- 1) **Better flow regulation, for different needs**. Energy choices will have a major impact on the Drina water resources (uses of water in the future, multiple actors involved in flow regulation, sedimentation, impact on biodiversity and communities, etc.).
- ->The ADA supported modelling exercise has a strong focus on energy because we need an energy system perspective to motivate the energy sector's involvement. Energy system considering water -> water-informed choice of energy solutions -> better flow regulation.
- 2) Multiple benefits from single projects. The assessment includes the development of a project proposal for a nexus priority intervention. We foresee this as being energy-water-climate solution for the basin.
- -> Could attract investments from non-water sources in water solutions that need funding e.g. in water solutions that need funding e.g. wastewater treatment, water efficiency, water conservation, etc.

### Drina II Nexus Assessment Technical Report -Structure

Background

 A summary of the Drina Nexus Participatory Process (towards Nexus Strategy/Roa dmap fo the Drina RB)

Chaptei

Technical/re source focused • Sustainable Energy Deployment (modelling of energywater scenarios)



Legal/Gover Chapter nance focused Flow

regulation modalities (formalizatio n options) in the Drina



List of possible nexus projects and related investments

Next Presentation KTH: content presented at RE Hard Talks in Bosnia and Herzegovina and Serbia (2018) and 2019)

Next Presentation by A.Lipponen: content presented to Permanent **Expert Group on River Basin** Management of ISRBC

### Towards a Drina Nexus Roadmap/Strategy

- A high-level political document with a substantive background/rationale
- Integrates the recommendations issued from the Drina II Nexus Assessment, Drina Nexus Follow-up project, and the Drina I Nexus Assessment
- Builds on other components of the ADA Project:
  - Project Documents for Priority Interventions (1 or 2 Projects)
  - Capacity Development
  - Gender-related activities
- Purpose of this Roadmap/Strategy is to formulate a political commitment by the riparian countries to:
  - Ensure establishment of the necessary cross-sectoral coordination and institutional arrangements to support integrated policy and management for flow regulation
  - Facilitate the mobilising of actions and investments across sectors, notably for nexus priority projects