DRINA RIVER BASIN:

ENERGY SYSTEM ANALYSIS & NEXUS ROADMAP

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Overview

- ✓ The Nexus Policy Dialogue in Drina basin
- ✓ Key insights from the Phase II Nexus Assessment – Energy System Analysis
- ✓ The transboundary “Nexus Roadmap” for Drina
- ✓ Outline of Adaptation Strategy for Drina

Nexus Assessment process in the Drina basin

- ✓ 2014-2016 Sava Nexus Assessment
- ✓ 2016-2017 Drina Nexus Assessment
- ✓ 2018-2019 Drina Nexus “Follow-up Project”
- ✓ 2020-2022 SEE Nexus Project

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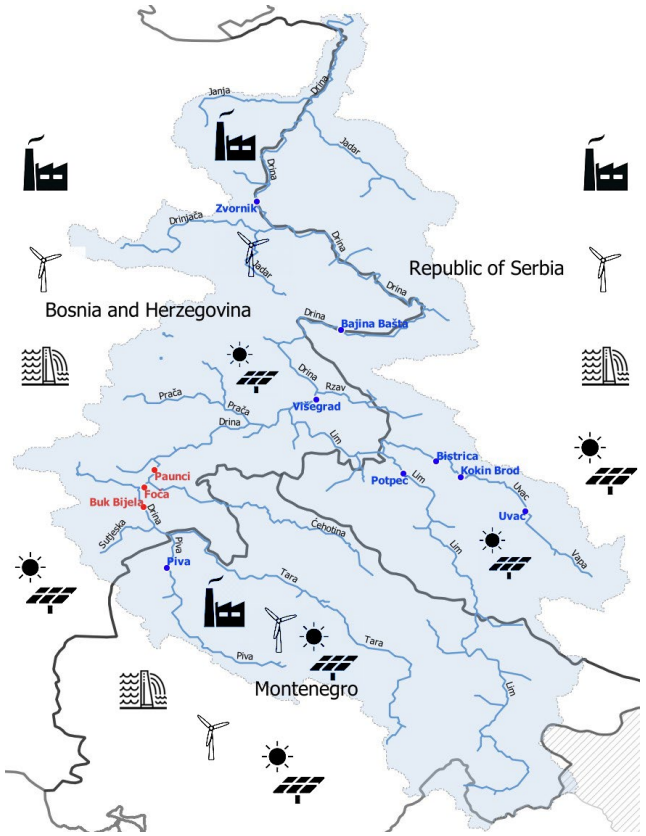
The SEE Nexus Project (2017-2022)

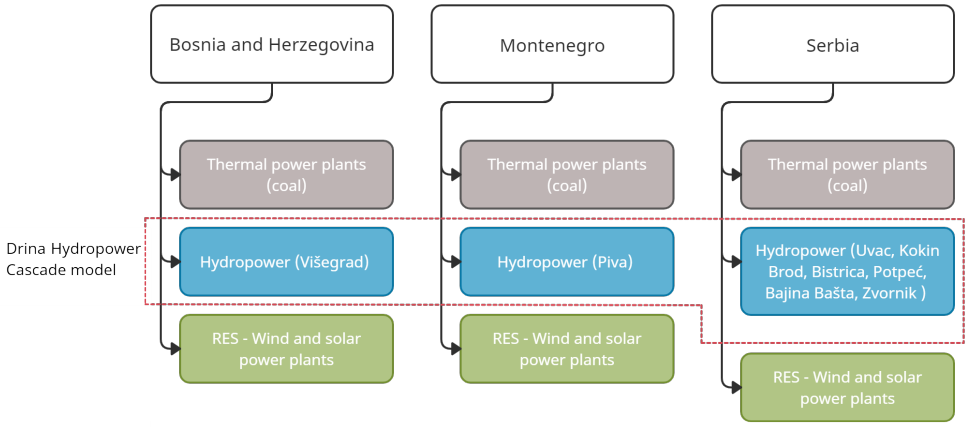
- Financed by ADA – Implemented by GWP-Med & UNECE
- SEE-wide Regional Component (2017-2019)
- Focused activities in (2020-2022):
  - Transboundary basins of Drin and Drina rivers, and Albania
- Promote the Nexus approach in SEE – catalyse related actions
  - Participatory process, enhanced capacities and raised awareness
  - Assessments to identify & explore interlinkages among sectors
  - Policy recommendations (Nexus Roadmaps)
  - Concrete suggestions for priority interventions

Phase II Nexus Assessment in the Drina basin

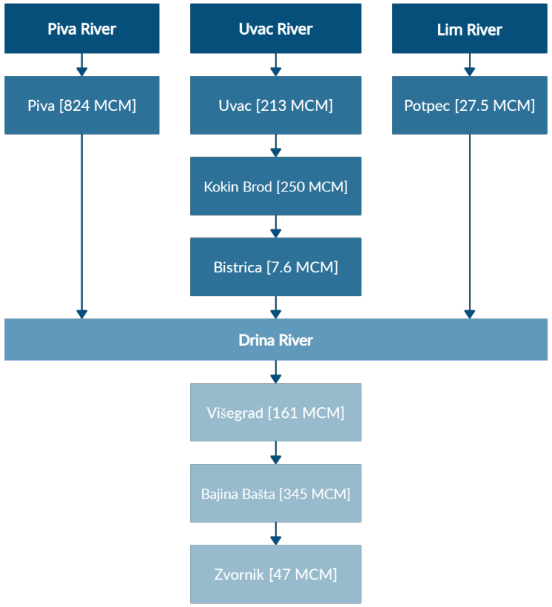
- Multi-country **integrated water-energy model** to explore the future of RES –and hydropower in particular- through selected scenarios and expected impacts of climate change
- Key aspects of **flow regulation** in the basin, taking into account all water uses and functions - progress towards formalizing some of these aspects

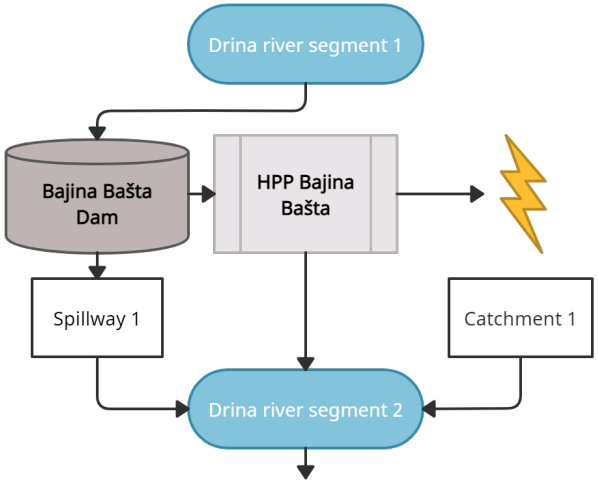


Energy System Analysis - Methodology

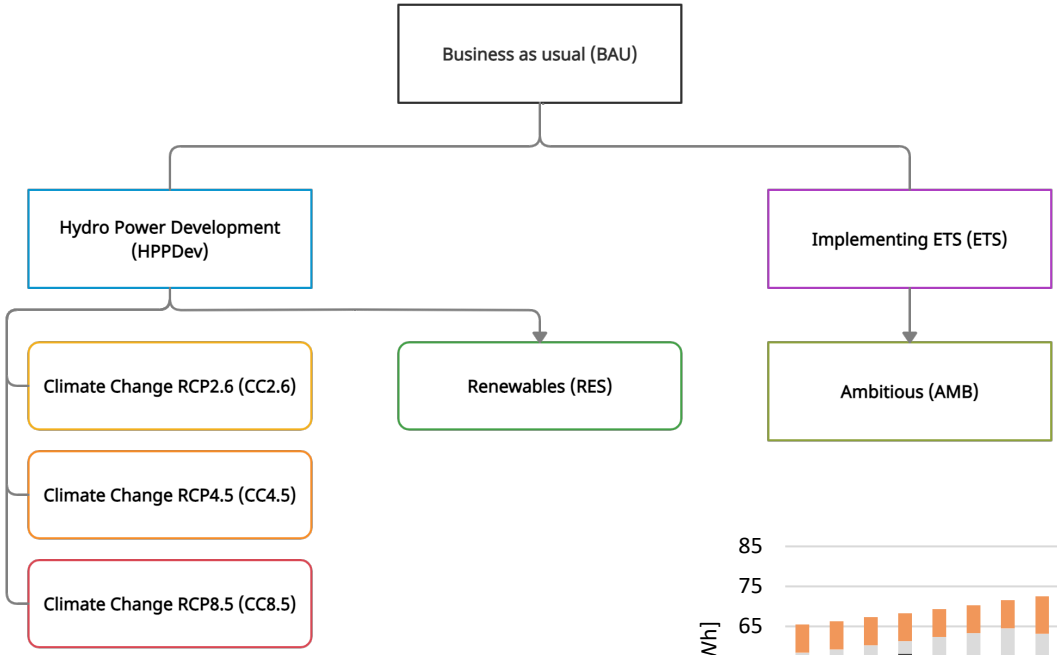


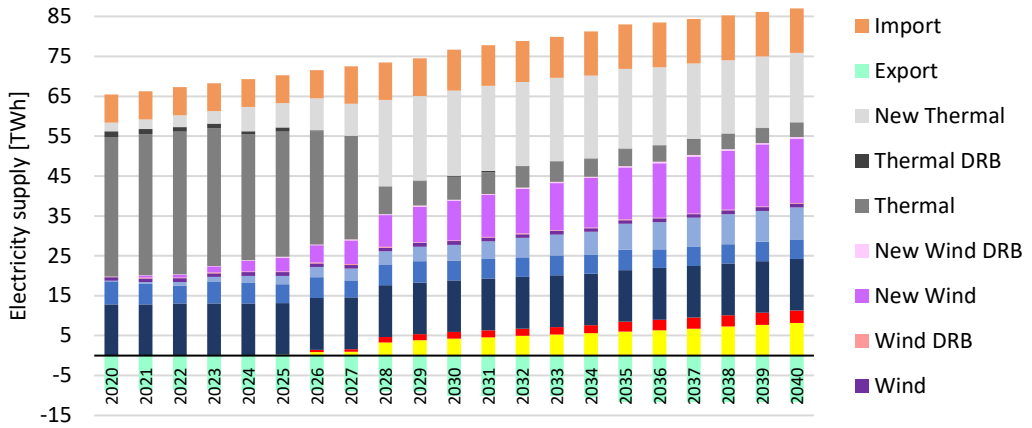
*A distinction made between technologies inside and outside the Drina River basin for each technology type





Energy System Analysis – Scenarios & Outputs





Key insights from the analysis

- Non-hydro RES: competitive with coal but not hydro
- Carbon pricing to significantly affect least-cost electricity supply mix (wind & solar 38% share in 2040)
- System challenges for high shares of intermittent RES – joint planning & integration of transmission infrastructure
- Risk of technological lock-in: Thermal plants under non-ambitious policies / HPPs under climate scenarios
- Models result in different water flows depending on future climate assumptions –> Hi-res modelling needed
- Coordination and joint actions required from all riparians

The Drina Nexus Roadmap

- Aim: assist countries towards sustainable and climate resilient management of transboundary natural resources
- Framework to facilitate planning and coordination of Nexus activities
  - ❖ lines of action and modalities for effective and coherent cross-sectoral coordination at institutional, policy and management levels
  - ❖ maximising the use of existing cooperation platforms and resources
- 10 objectives and suggested main lines of action

The Drina Nexus Roadmap - Objectives

1. Strengthen cross-sectoral cooperation at TB level
2. Improve cross-sectoral governance
3. Improve cross-sectoral policy instruments
4. Boost sustainable infrastructure investments
5. Improve monitoring, data and info exchange
6. Coordination and co-optimisation of flow regulation
7. Improve management of wastewater and solid waste
8. Reduce erosion and sedimentation-related pressures
9. Foster sustainable renewable energy development
10. Agricultural, rural, and eco-tourism development

Outline of a Drina Climate Adaptation Strategy

- ✓ National & TB adaptation-related policies and initiatives / International frameworks
- ✓ Climate change scenarios for the Drina River Basin
- ✓ Expected impacts on sectors & settlements / linkages with disaster risk reduction
- ✓ Vulnerability and risk assessments: scope, methodological approaches and priorities
- ✓ Guiding principles, objectives and targets
- ✓ Options for public engagement and participation
- ✓ Adaptation Options: Typology, principles for prioritisation, priority areas of focus

All materials available at: www.gwp.org/seenexus

Thank you for your attention!

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