Introduction to the Assessment of the Water-Food-Energy-Ecosystems Nexus and benefits of cooperation in the Drina Basin

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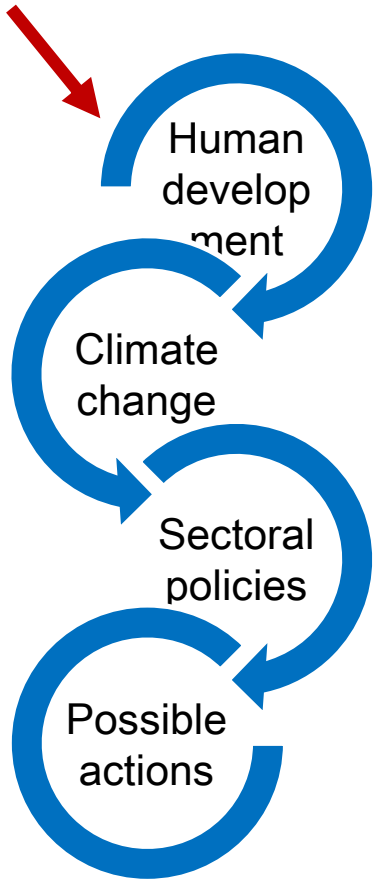
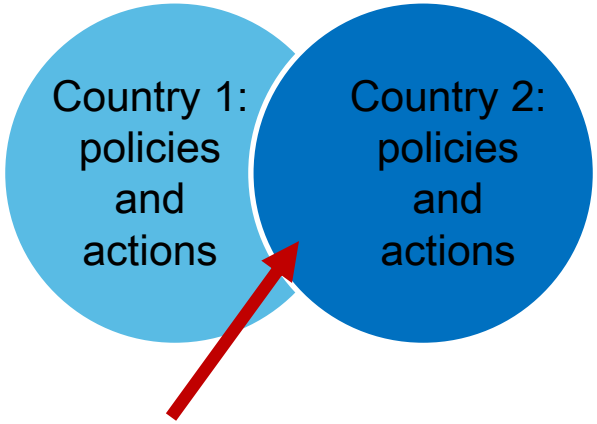
Why a Water-Food-Energy-Ecosystems Nexus in transboundary river basins?

Water-Food-Energy-Ecosystems Nexus



Need to integrate/coordinate:

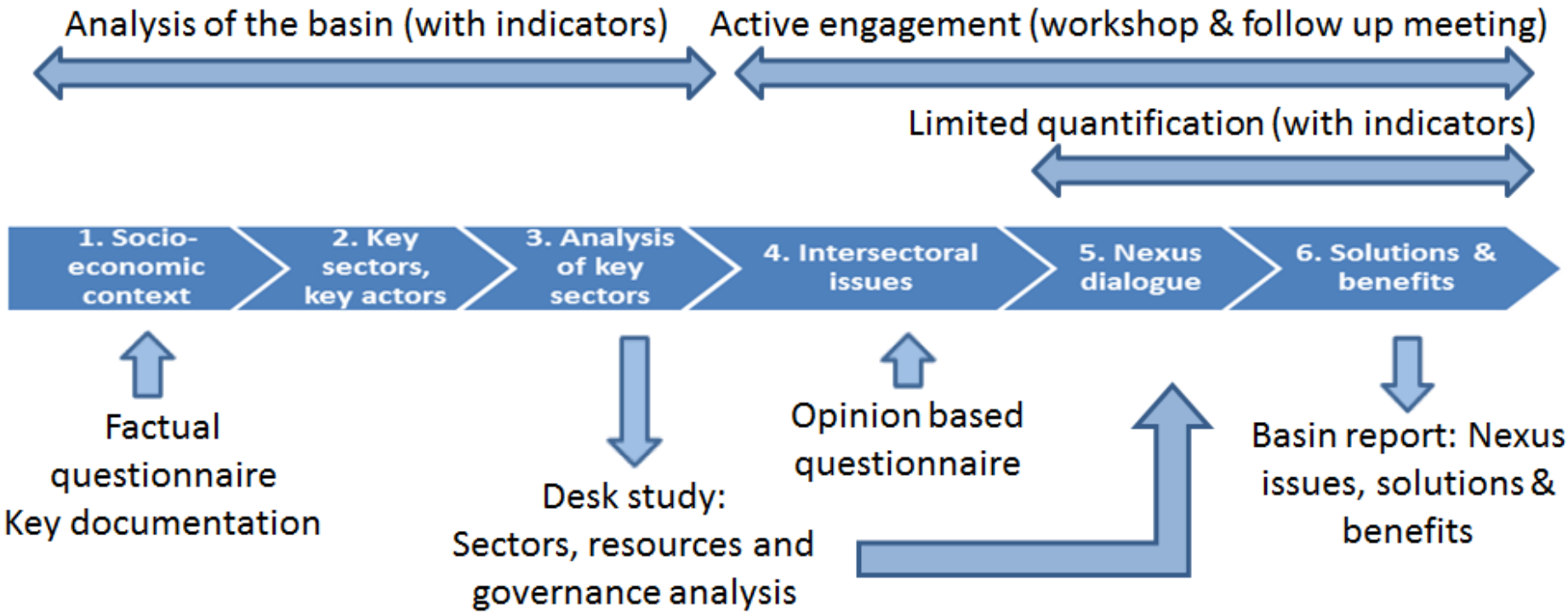
1. A better understanding of inter-sector and inter-resources dynamics allows accounting for impacts & more effective resource management
2. To make policies and actions more coherent across sectors and countries



Communication, collaboration and joint action!

Nexus assessment methodology

- Developed with the Task Force on the Water-Food-Energy-Ecosystems Nexus guiding providing oversight, within the programme of work under the Water Convention
- Adapts to the context and the issues specific to the basin
- Application to 5 transboundary basins demonstrates value for engaging different sectors into a dialogue



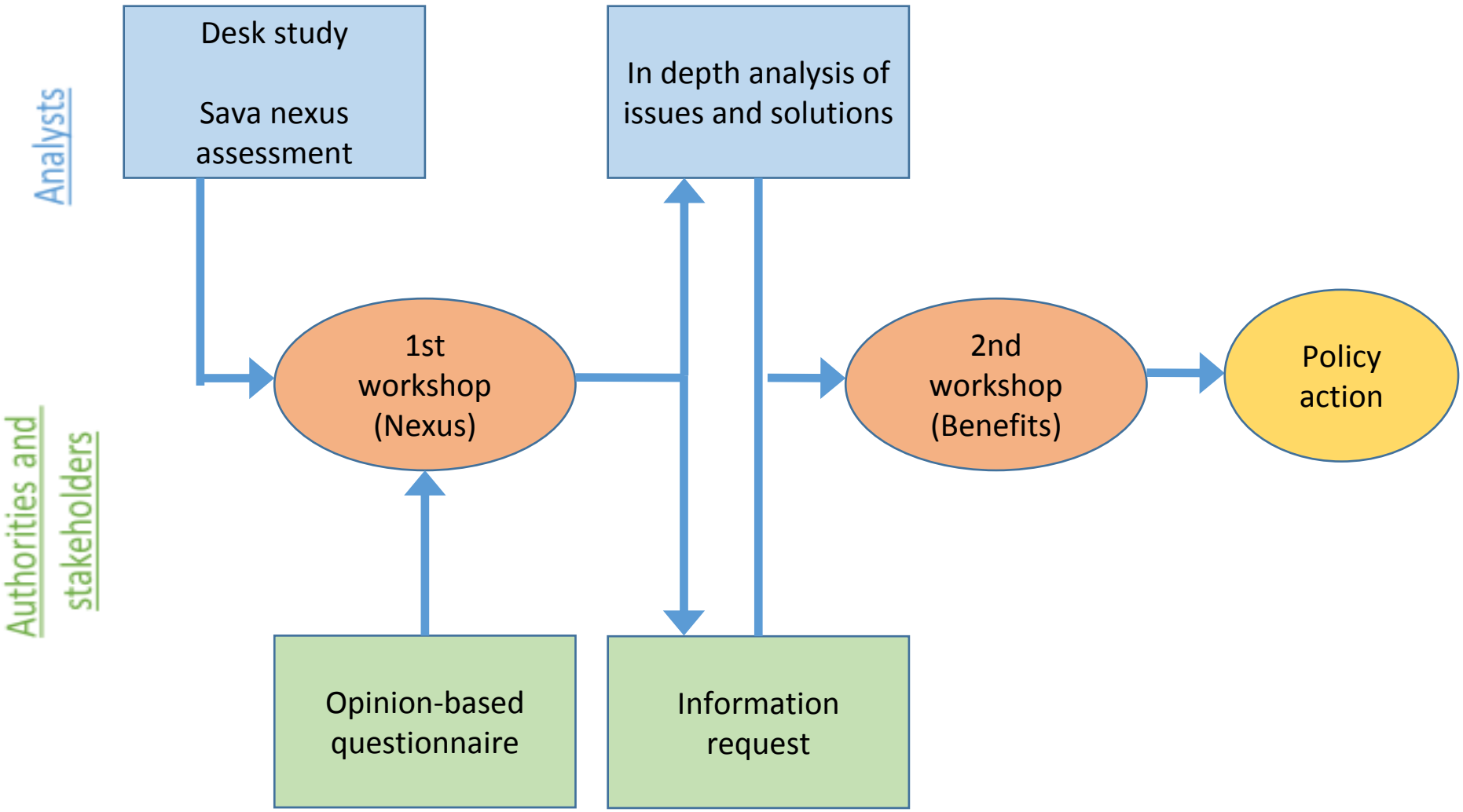
Why the nexus assessment in the Drina?

- **National & regional development has implications**, also across borders and created vulnerabilities
- **Natural resources** that are inputs to various sectors:
  - Rich biodiversity and untouched landscapes - which make the Drina highly valuable from an environmental perspective, as well as very attractive for tourism.
  - Hydro potential - with an estimated 60% yet to be explored.
- Opportunity to combine nexus assessment and analysis of benefits of cooperation to **foster transboundary cooperation**:
  - Exploring policy inconsistencies and potential shared benefits
  - Informing dialogue and understanding the interconnections
  - Quantification of selected operational solutions
- Opportunity to zoom-in from the Sava nexus assessment, being more specific on possible policy and technical actions

Key information on the Drina Basin project

- Funded by the Italian Ministry for the Environment, Land and the Sea as “Greening economic development in Western Balkans through applying a nexus approach and identification of benefits of transboundary cooperation”
- Implemented by UNECE with partners, ISRBC and others
- Part of the Programme of Work 2016-2018 of the Water Convention; contributes to the work of the Group of Experts on Renewable Energy
- Contributes to implementation of the SDGs (esp. SDG 2, 6, 7 & 15)
- Practical application of the “Policy Guidance Note on the Benefits of Transboundary Water Cooperation: Identification, Assessment and Communication”

The assessment process in the Drina



Sources of information: Sava assessment, desk study, expert input, consultation…

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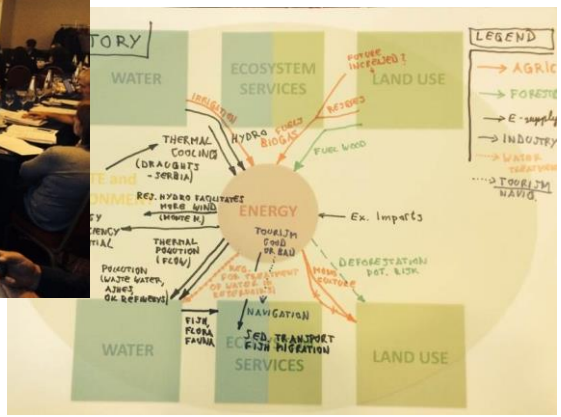
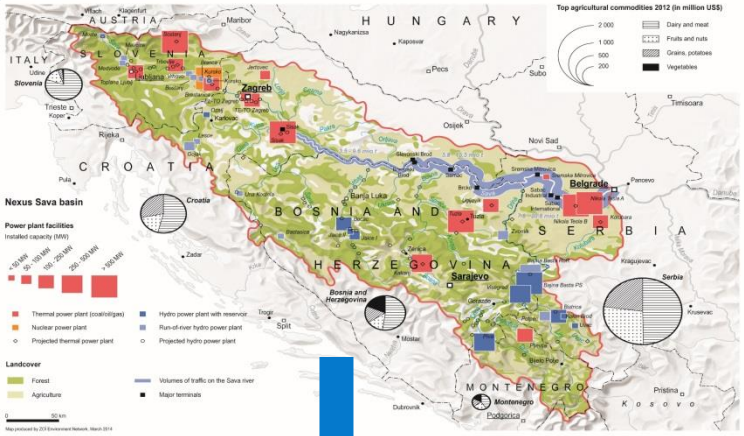
Workshop



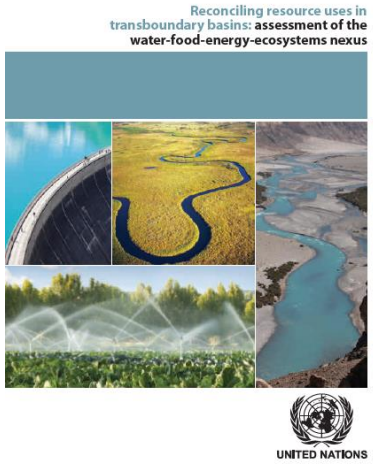
General basin diagnostic

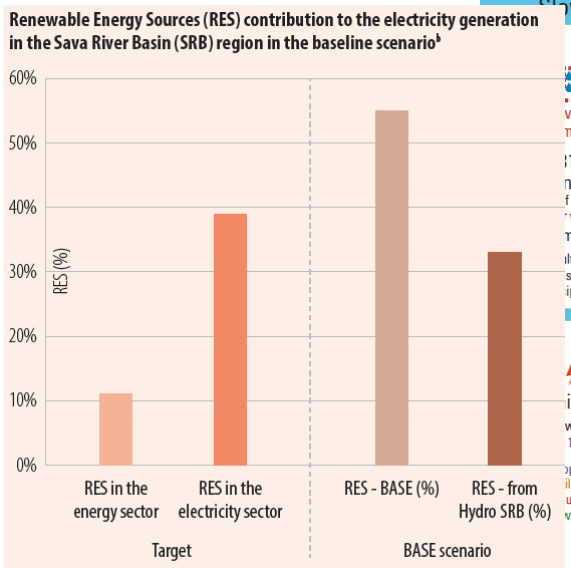


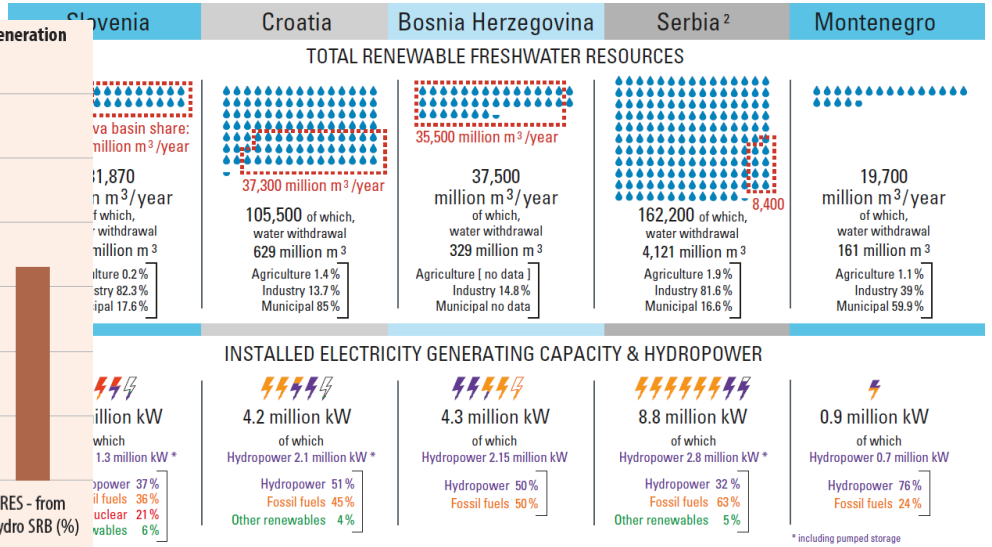
Indicator-based analysis

Quantification of selected priority issues

Conclusions & dissemination







Participatory, multi-sectoral workshops to identify the key issues, focus the analysis, brainstorm about the solutions

21-22 April 2016, Podgorica, Montenegro

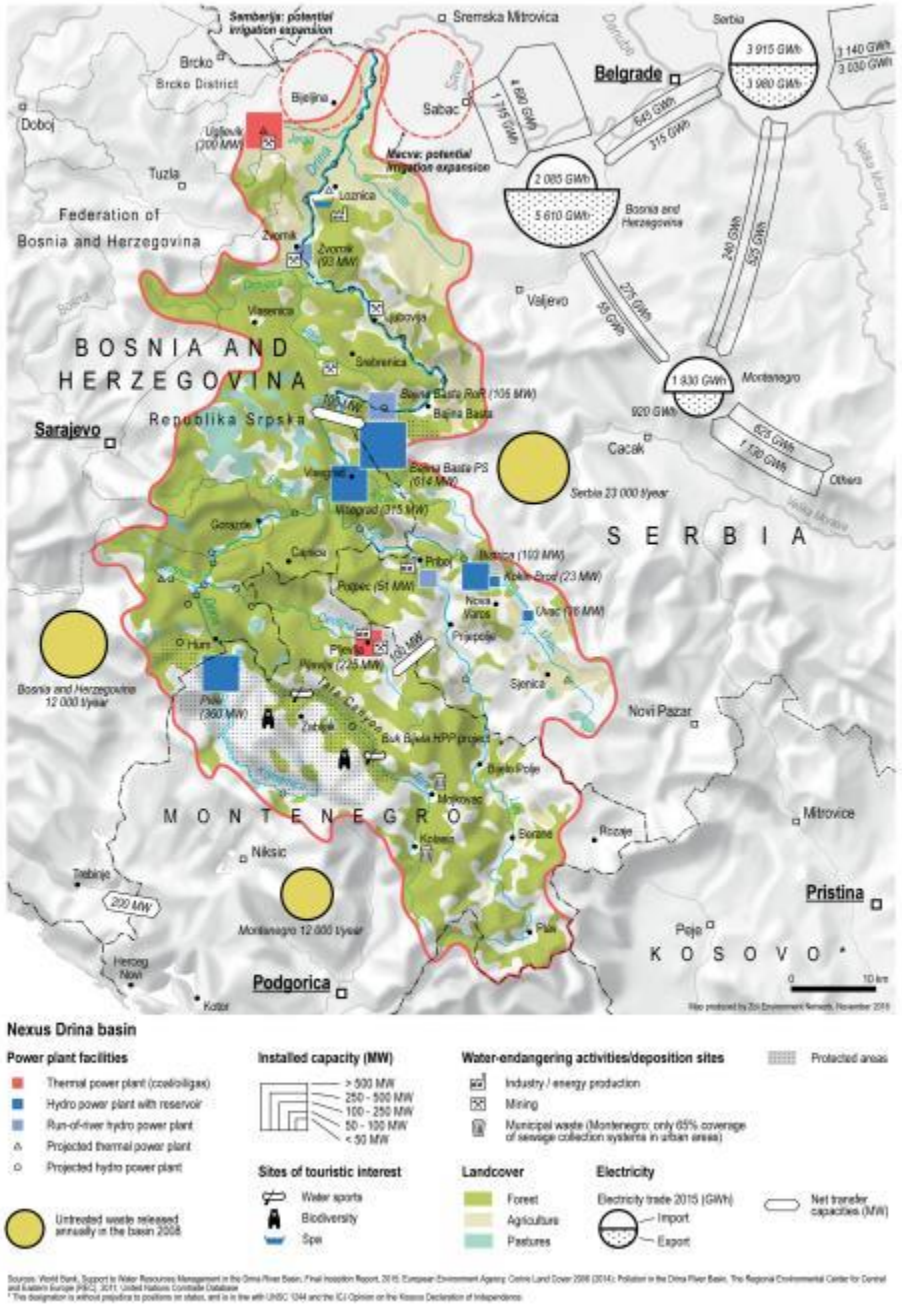
Identification of intersectoral issues and multi-sectoral roundtables to discuss potential solutions

8-10 November 2016, Belgrade, Serbia

Review of preliminary findings and discussion on

benefits of cooperation

Drina River Basin



Key indicators describing the resources of the Drina countries

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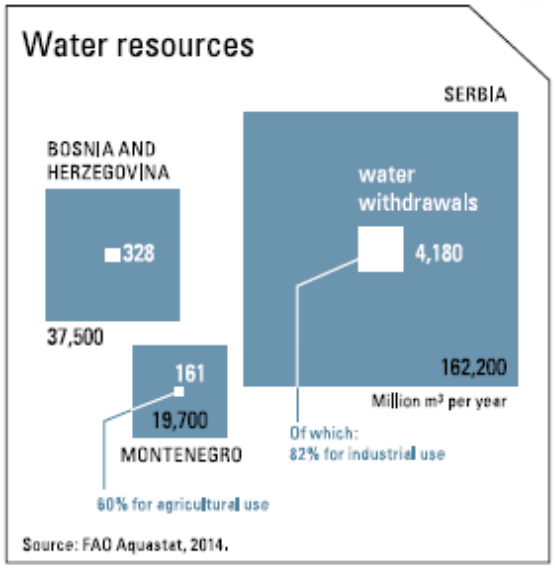
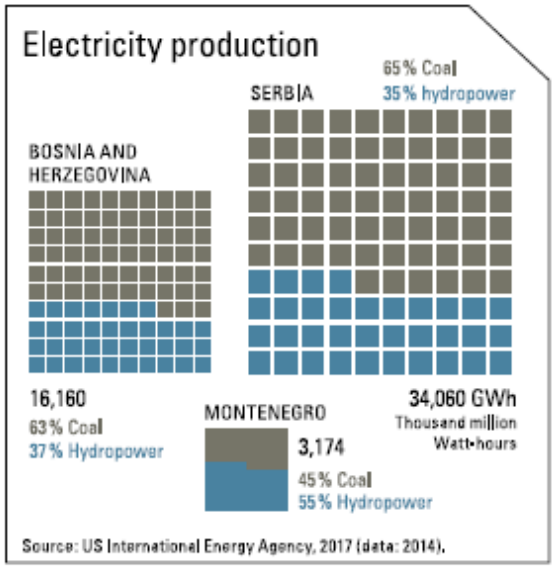
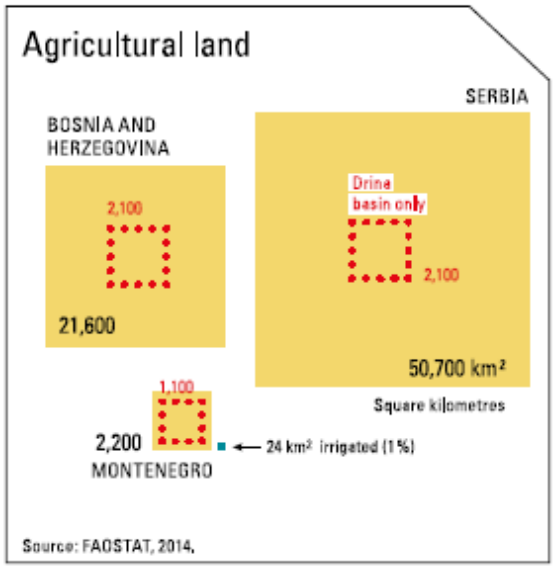
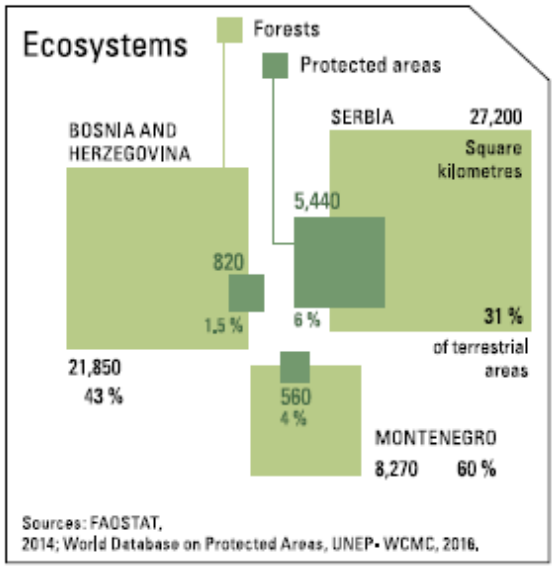






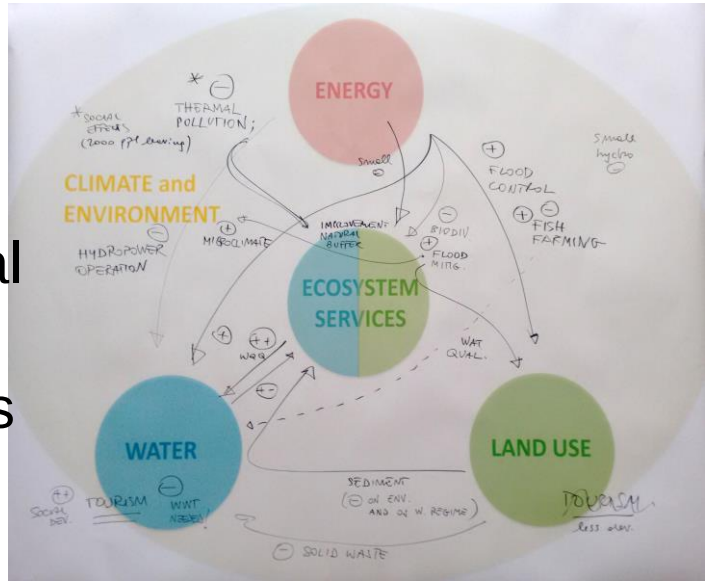


Outputs/deliverables

- Situation Analysis
- 3 workshops (Podgorica 21-22 April 2016; Belgrade 8-10 November 2016; Sarajevo 19-20 April 2017)
- The main intersectoral issues in the selected basin identified and detailed, building on the various projects in the basin
- The main transboundary cooperation opportunities and related benefits identified, analysed and quantified (selective, focused)
- Nexus relevant solutions outlined and prioritized among the riparian countries
- A report synthesising the experience, the analyses and the policy recommendations; a summary assessment & policy brief
- Western Balkans wide outreach and dissemination of the findings, examples of benefits and recommendations; sharing of experience in the nexus Task Force

Basis and direction from the workshop: selected issues that the participants agreed about

- water availability is an issue in the basin and water shortages have been affecting different activities
- Water quality is affecting people's health and need to be improved.
- The agricultural practices should be intensified
- Irrigation expansion in the basin will increase agriculture production.
- the importance of electricity trade between riparian countries for energy security
- The current energy efficiency levels are low
- human activities are putting significant pressure on the local ecosystems and are exacerbating the frequency of natural disasters
- the level of coordination between sectors in the national level and the transboundary level is not adequate



Clusters of solutions

- **Institutions** (intersectoral, multiple level governance, engaging resource users, responsibilities etc.)
- **Information** (multi-sector information to support policy, assessing impacts across sectors, guidelines etc.)
- **Instruments** (economic instruments, SEA etc.)
- **Infrastructure** (built and natural – investments, operation, multiple use designs etc.)
- **International coordination and cooperation** (sharing information, plans, good practices etc.)

A menu of options to address resource management issues in the Drina River Basin

- Take decisive steps to co-optimise flow regulation.
- Promote integrated rural development in the basin by exploiting the synergies between eco-tourism, agriculture and renewable energy production.
- Develop a common approach to effectively protect water quality.
- Control illegal dumping, and promote sustainable practices in the agriculture, industrial and mining sectors.
- Take full advantage of current governance structures and consider complementary arrangements.
- Consider how to maximise the generation of (net) benefits from cooperation around nexus issues.
- Develop of a basin investment strategy.

Assessing the benefits of transboundary water cooperation

- Transboundary water cooperation generates more benefits than usually perceived, some benefits are often overlooked
- Assessing the broad range of benefits of cooperation to provide fact-based arguments for starting up or developing stronger cooperation
- Objective of the action under the Water Convention: To support Governments and other actors in realizing the broad range of significant benefits generated by transboundary water cooperation.
- *Policy Guidance Note on the Benefits of Transboundary Water Cooperation*: *Identification, Assessment and Communication* developed, building on > 30 case studies worldwide, > 120 experts involved
- Step by step methodology on how to approach those tasks and how benefit assessment can be integrated into transboundary water cooperation policy processes (assessment to be tied to policy process!)

Typology of the potential benefits of transboundary basin cooperation

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	On economic activities	Beyond economic activities
From improved management of basin resources	**Economic benefits** • Expanded activity and productivity in economic sectors (aquaculture, irrigated agriculture, mining, energy generation, industrial production, nature-based tourism) • Reduced cost of carrying out productive activities • Reduced economic impacts of water-related hazards (floods, droughts) • Increased value of property	**Social and environmental benefits** • Health impacts from improved water quality and reduced risk of water-related disasters. • Employment and reduced poverty impacts of the economic benefits • Improved access to services (such as electricity and water supply) • Improved satisfaction due to preservation of cultural resources or access to recreational opportunities. • Avoided/reduced habitat degradation and biodiversity loss
From enhanced trust	**Regional economic cooperation benefits** • Development of regional markets for goods, services and labour • Increase in cross-border investments • Development of transnational infrastructure networks	**Peace and security benefits** • Strengthening of international law • Increased geopolitical stability • New opportunities from increased trust • Reduced risk and avoided cost of conflict • Savings from reduced military spending

Energy-water cooperation: RES in focus

- **CHALLENGES** (e.g. REN21-UNECE Renewable Energy Status Report 2015, others):
  - **Without an intersectoral approach, International commitments** about doubling the share of renewable energy in the global energy mix (SE4ALL), and providing affordable, reliable, sustainable, and modern energy for all (SDG 7) **risk being difficult to reach** without affecting negatively achievement of other Sustainable Development Goals (on water, food security, ecosystems)
  - Energy sector's development in shared basins has transboundary effects, requiring coordination. Risks to businesses also. Cooperation frameworks needed!
- **NEED**: Renewable energy policies need to be redesigned and the development of RE made more sustainable, taking into account economic circumstances, development challenges, renewable energy potential, other sectors' and environment's needs, and transboundary impacts.
- **MOTIVATION**: Beneficial to explore how to integrate into energy policies and investment plans intersectoral links and synergies that exist. Intersectoral (nexus) assessments can inform a dialogue for more transparent choices about the trade-offs, and help reconcile between development and environmental objectives.
- **HOW?**
  - GERE workplan 2016-2017: Facilitate exchange of know-how, best practices and lessons learned
  - Drina project has demonstration value: informed GERE discussions 7th Sustainable Energy Forum. Continuation: Policy document launch at 8th SEF Ministerial conference and EXPO 2017 in Kazakhstan
  - RES projects – matchmaking with IFIs

Concluding remarks

- **Status**: nexus assessment report and summary assessment being finalised for publication. Feedback was valuable. It should be an initial step in a process that continues, as “owned” by the countries.
- Overall a **challenging process**: complexity of multiple level interdisciplinary work, participation requires time, learning increasing ambition
- The **methodology evolved** with the benefits perspective. Many steps could have been done better.
- **Needed: continued dialogue** among the countries & sectors on the issues, findings, intersectoral (nexus) solutions taking into account negative and positive cross-sectoral effects
- **Potential** for applying a nexus approach further in the DRB, also nationally, and sharing experience with other basins in the region (Drin)
- Priority follow up activities to be identified. Partners called upon to also respond.
- **Synergy** with other initiatives: World Bank/WBIF Drina work built on, the starting GEF project can potentially use the findings

Organization of work: parts of the workshop

Day 1

Overview of the findings (by area of action)

Group work about the identified possible solutions and related benefits

Group reporting and plenary discussion

Day 2

Initiatives that may offer follow up opportunities

Selected issues from the Drina Nexus Assessment for possible further work