

# Proposed structure of the stock-taking report and overview of the general sections

Ms. Annukka Lipponen  
Environmental Affairs Officer  
UNECE Water Convention secretariat



Convention of the Protection and Use of Transboundary Watercourses and International Lakes



# Outline of the stock-taking report: part 1

- Introduction, including background to the assessment
- Objectives and scope
- Value of an intersectoral approach to resource management; Nexus and IWRM, etc
- Governance and the nexus in a transboundary context
- Methodology



## Outline of the stock-taking report: part 2

- Major findings of the basin-level assessments
- Basin assessments (as short versions; around 25 pages each)
  - Alazani/Ganikh
  - Sava
  - Syr Darya
- Tools for nexus analysis and frameworks
- Solutions and opportunities in the nexus (with contributions from OECD and IUCN+IWA)
- General conclusions and recommendations
- Annexes



# Structure of the basin assessments

1. Basic river basin description and intersectoral issues
  - General river basin characteristics
  - Economic relevance, drivers and the Nexus
  - Key human water uses, related pressures and impacts
  - Governance in the Basin regarding the Nexus
    - Governance structure
    - Transboundary cooperation mechanisms
    - National policies and strategies related to the key sectors
  - Future trends
    - Socio-economic trends
    - Role of climate change



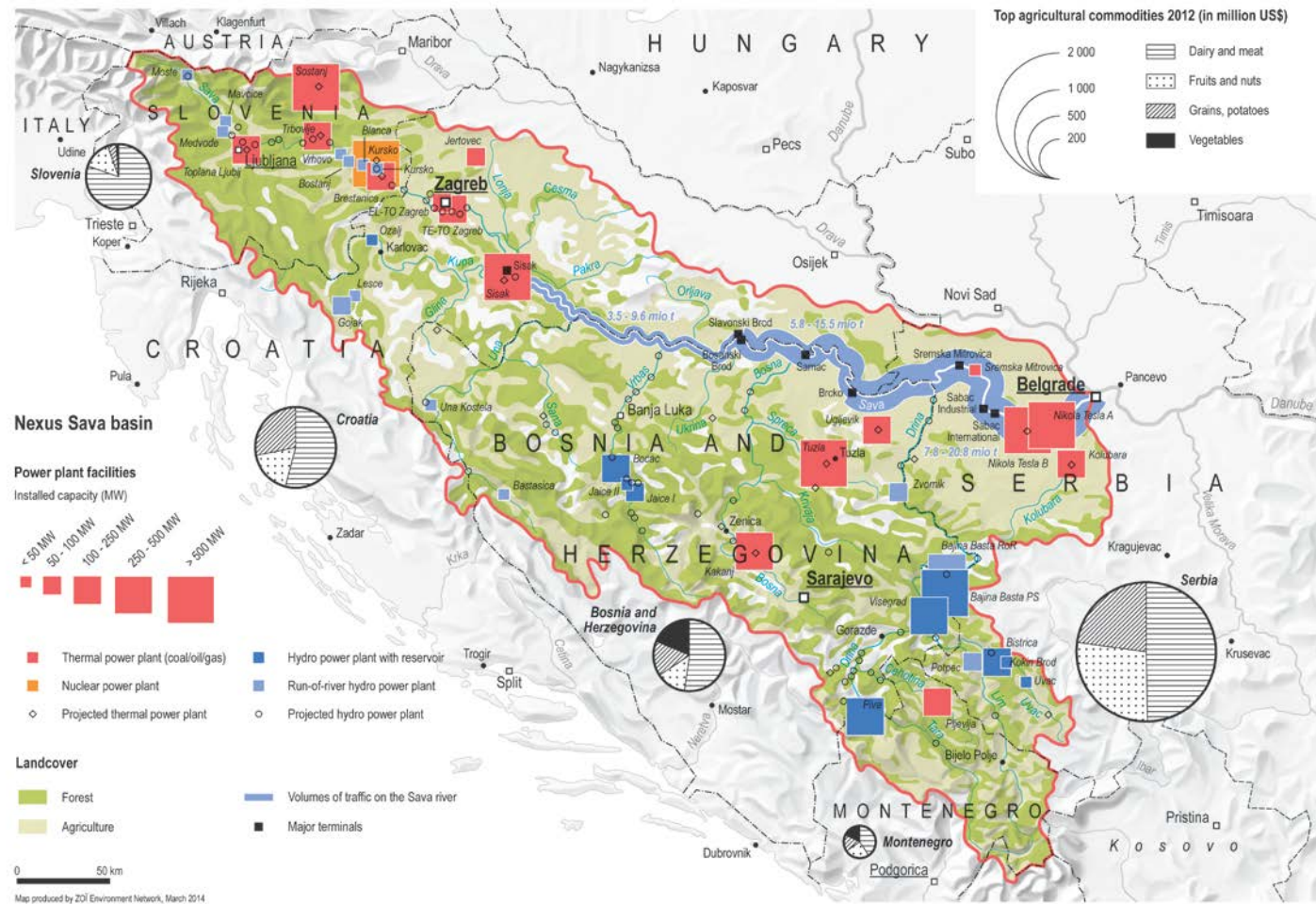
# Structure of the basin assessments

## 2. Nexus assessment results considering intersectoral linkages, transboundary impacts, solutions and benefits

- Intersectoral linkages
- Possible transboundary impacts
- Possible intersectoral transboundary solutions and benefits

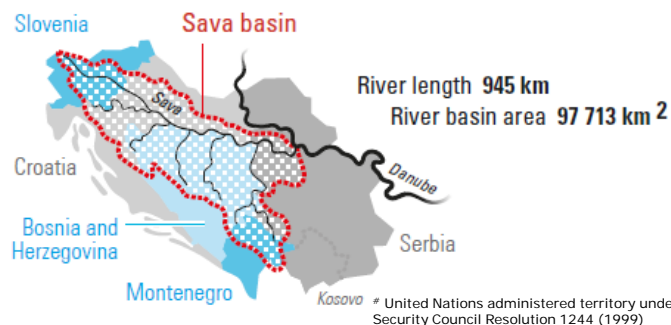


# Nexus map



# Indicator graphics 1

## Sava basin



| Slovenia | Croatia | Bosnia Herzegovina | Serbia | Montenegro |
|----------|---------|--------------------|--------|------------|
|----------|---------|--------------------|--------|------------|

### INTERNAL RENEWABLE FRESHWATER RESOURCES



18.6 billion m<sup>3</sup>  
of which,  
water withdrawal:  
million m<sup>3</sup>  
Agriculture 0.3%  
Industry 82.2%  
Municipal 17.5%



37.3 billion m<sup>3</sup>  
of which,  
water withdrawal:  
million m<sup>3</sup>  
Agriculture 1.4%  
Industry 13.7%  
Municipal 84.9%



35.5 billion m<sup>3</sup>



8.4 billion m<sup>3</sup>  
of which,  
water withdrawal:  
million m<sup>3</sup>  
Agriculture 1.9%  
Industry 81.5%  
Municipal 16.6%

Water withdrawal:  
million m<sup>3</sup>  
Agriculture 1.1%  
Industry 39%  
Municipal 59.9%

### INSTALLED ELECTRICITY GENERATING CAPACITY & HYDROPOWER



3,338 million kW  
of which:  
Thermal 35.9%  
Nuclear 38.8%  
Hydropower 23.2%  
Other renewables 2.1%



4,065 million kW  
of which:  
Thermal 54.8%  
Hydropower 43.5%  
Other renewables 1.7%



4,205 million kW  
of which:  
Thermal 70%  
Hydropower 30%



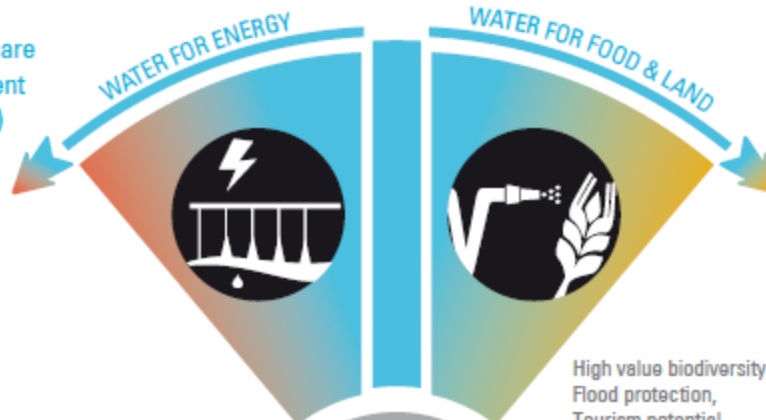
7,708 million kW  
of which:  
Thermal 76.3%  
Hydropower 23.7%



0,908 million kW  
of which:  
Thermal 53.4%  
Hydropower 46.6%

## WATER

- Hydropower has the highest share of water withdrawals (flow requirement to produce electricity)
- Groundwater extraction for Baku from the wider aquifer



- Agriculture is the most important sector in the basin
- Extensive irrigation schemes

High value biodiversity  
Flood protection,  
Tourism potential  
Fuelwood and fish



- No large-scale wastewater treatment
- Water pumping and transport for Baku and local use



- Soil salinity caused by substances in the water
- Water quality affects nutrients and pesticides
- Negative impact of on hydrological flow



## ENERGY

## FOOD & LAND

- Lack of access to alternative sources for heating/cooking in rural areas aggravates deforestation
- Pumping systems for irrigation schemes (often based on gravity flow)

- High level of wood use for heating and cooking in rural areas



## BASIN TRENDS

CLIMATE CHANGE  
Precipitation, temperature



ECOSYSTEM SERVICES



POPULATION



ECONOMY (medium term)



POLICY  
Is the Nexus addressed?



## NEXUS FUTURE IN THE SAVA BASIN

GOING UP UP UP GOING DOWN BY 2030

## NATIONAL TRENDS

Slovenia

Croatia

Bosnia and  
Herzegovina

Montenegro

Serbia<sup>1</sup>

COMMENTS

WATER FOR FOOD & LAND  
Irrigation needs



WATER FOR ENERGY  
Electricity generation needs, cooling



ENERGY FOR WATER  
Treat, move and store water



ENERGY FOR FOOD & LAND  
Grow, store, process and move food



FOOD & LAND FOR ENERGY  
Food-energy competition for water,  
biofuel production



IMPACT OF FOOD & LAND  
ON WATER RESOURCE  
Water pollution, agricultural use

