

Regional Roundtable “Water, Food, Energy and Environment Nexus in Southeastern Europe”

Zagreb, Croatia
9-10 December 2014

Methodology for assessing the Water-Food-Energy- Ecosystems Nexus in transboundary river basins

by
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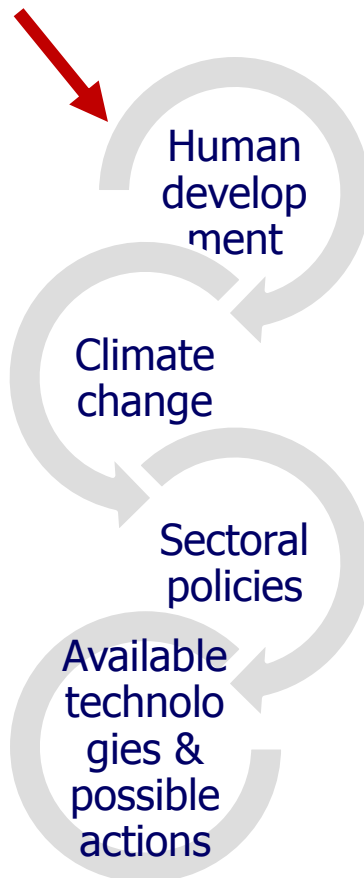


In the framework of:
South East Europe 2020 Strategy
Petersberg Phase II / Athens Declaration Process
UNECE Water Convention
Mediterranean Component of the European Union Water Initiative
Environment and Security Initiative, SEE Region

Why the Nexus in transboundary river basins?

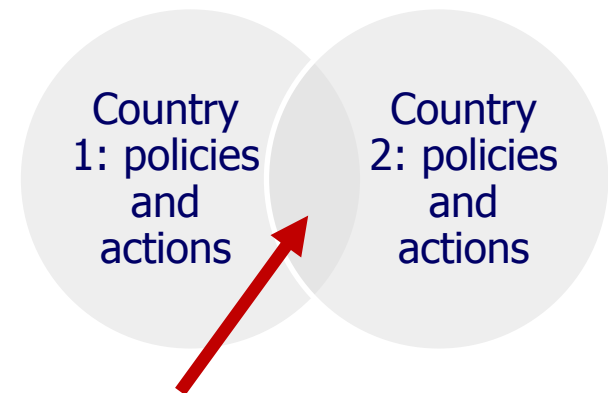


Water-Food-Energy-Ecosystems Nexus



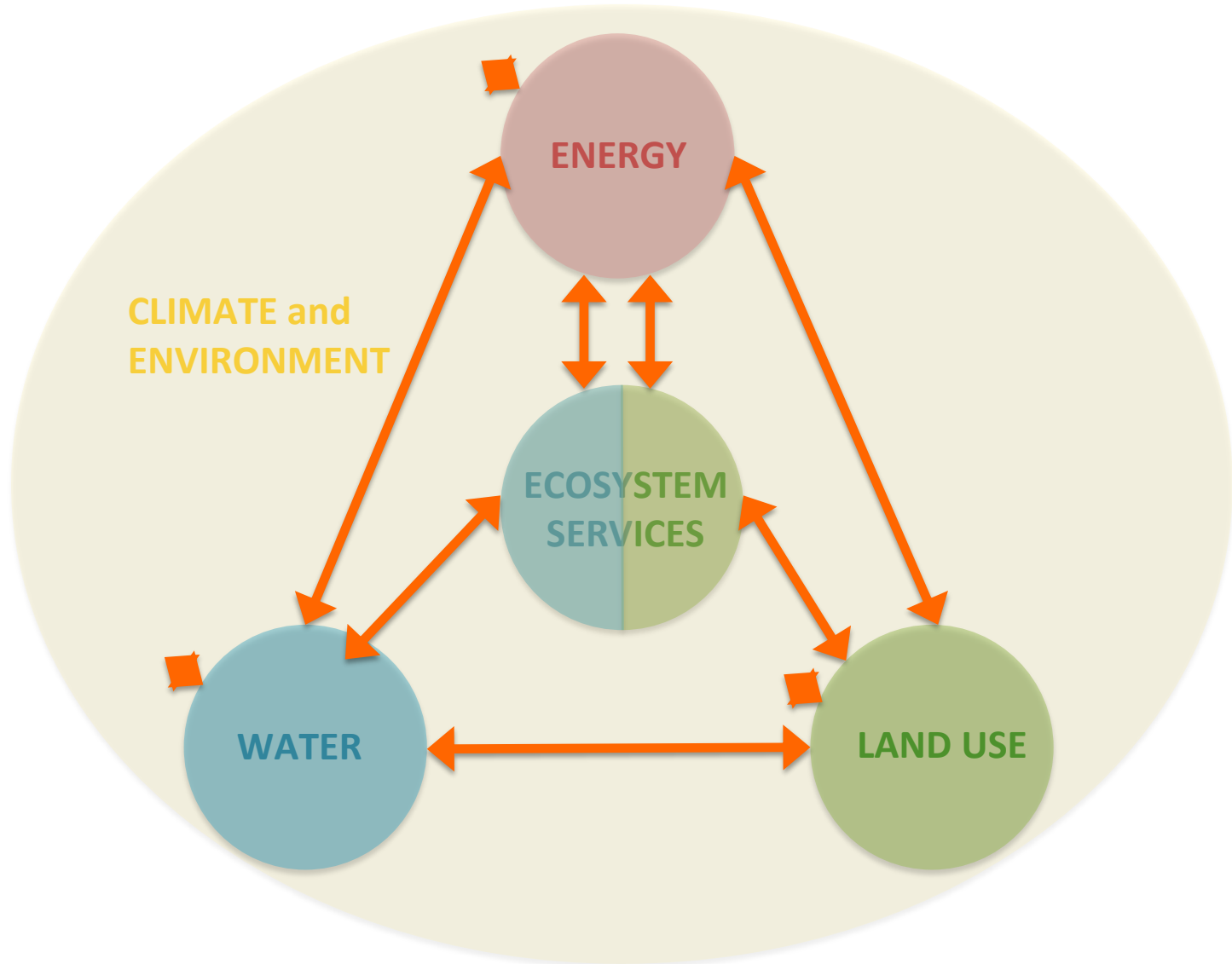
Need to integrate/coordinate:

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!

Environment in the center of the Nexus



Indicators to understand..



1. Use of resources

- Demands
- Dependencies
- Efficiencies

2. Nexus security (water, energy, food, environmental securities)

- Overall or local scarcity
- Interlinkages

3. Complementarity between countries

- Opportunities for cooperation

Methodology definition



- Consultation among
 - countries
 - experts
 - partners
- Structure that allows for application on different basins
- Flexibility of content
- Feedback from case studies to improve the methodology

Work at basin level



Literature review

- *Country, basin indicators*
- *Available documentation*

Factual questionnaire

- *Qualitative and semi-quantitative information*

Workshop dialogue

- *Opinions of countries and sectors*
- *Joint discussion on the future*
- *Potential synergies*

Direct consultation

- *Specific data*
- *Quantification of selected trade-offs /synergies**

*depending on the countries interest & availability of donor funding

Stock-taking report



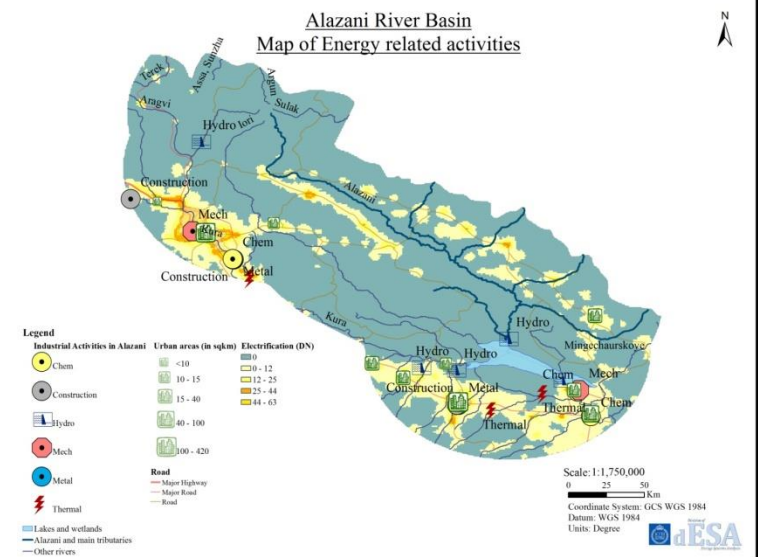
- Summary from case studies
 - Findings
 - Lessons learned
 - Follow up projects
- Final methodology
- Is the nexus approach improving transboundary cooperation?

Nexus Workshop in Kachreti, Georgia

25-27 November 2013



- Organised in cooperation with
 - UNDP/GEF
 - Ministry of Environment Protection and Natural Resources of Georgia
- Among the participants
 - ministries of environment, energy, agriculture, emergency situations
 - communities
 - agencies
 - private companies
 - civil society



Work in groups and in plenary discussions



1. Nexus issues specific to the basin highlighted

Countries and sectoral plans? Are they compatible? Drivers & the climate outlook? How to better reconcile the different uses?

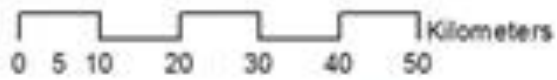
2. Sectoral and national plans shared

Opportunities to reduce negative intersectoral impacts and enhance synergy?
Institutional arrangements at transboundary level conducive to intersectoral coordination?

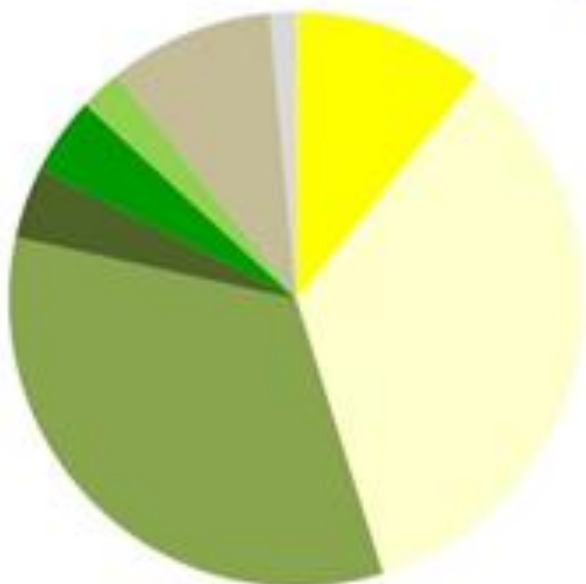
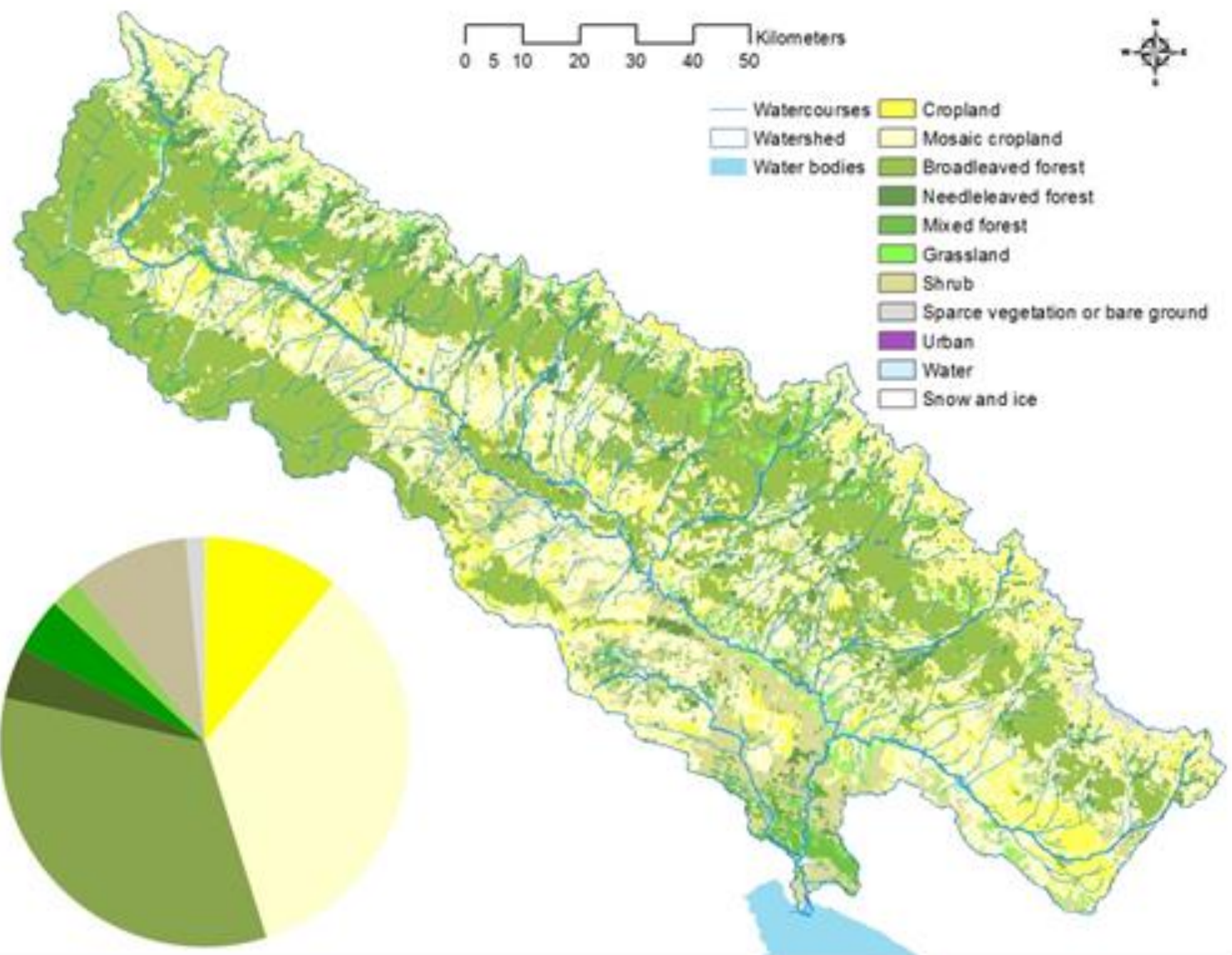


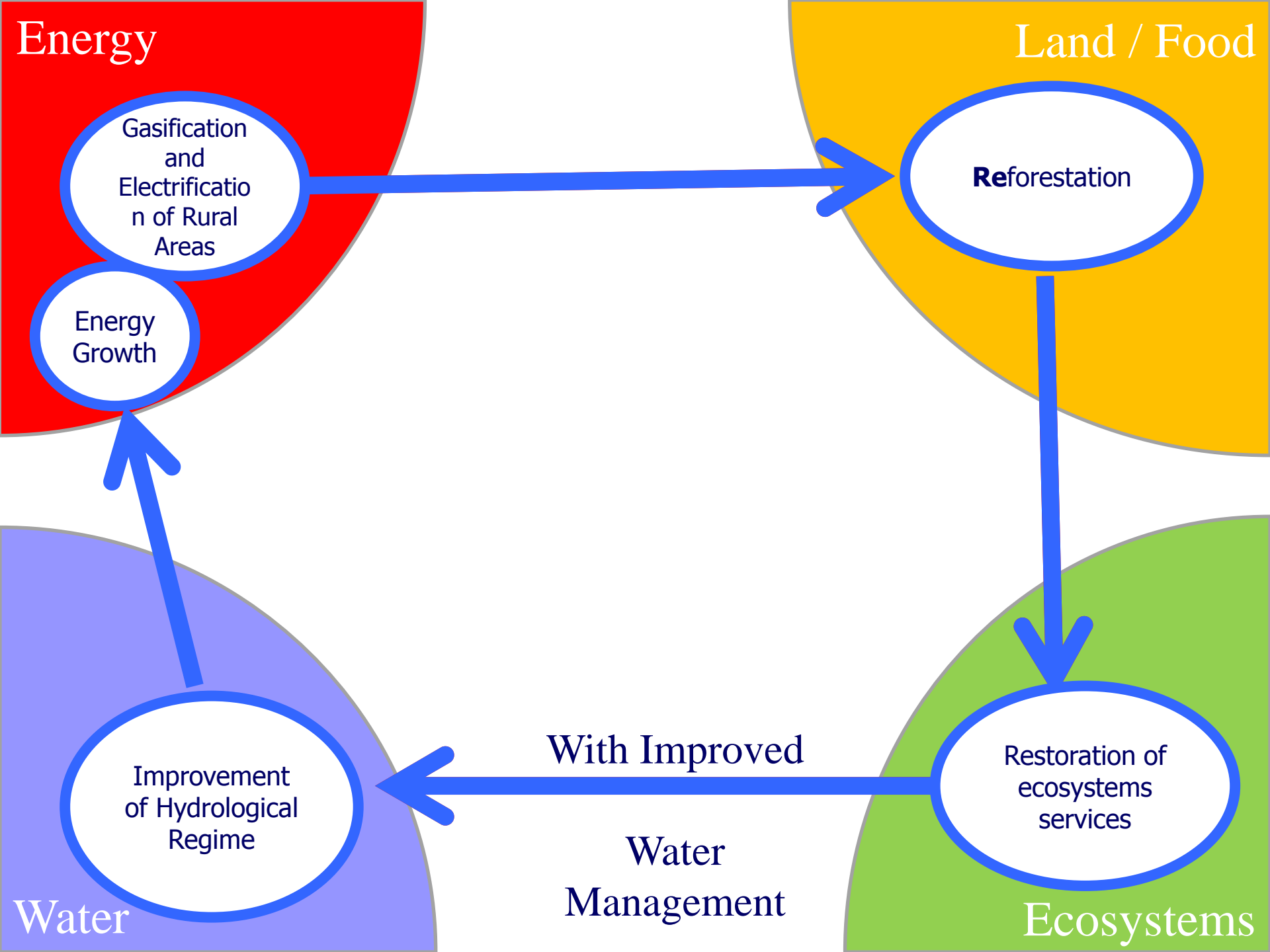
3. Potential solutions identified

Changes to policies, new policies, management and measures practices, institutional arrangements, ways the infrastructure is operated..



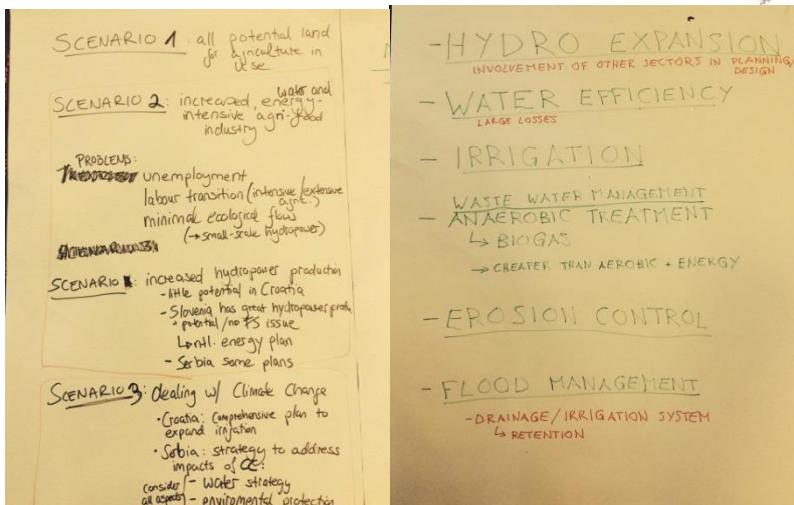
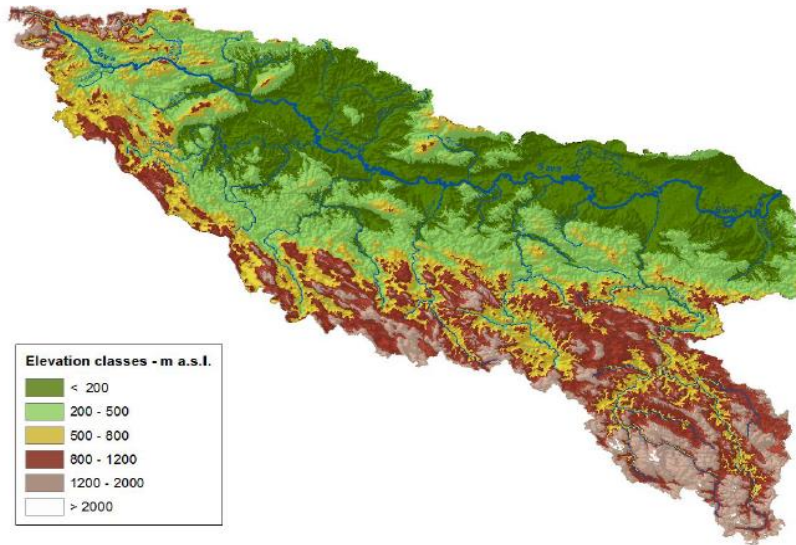
- Watercourses
- Watershed
- Water bodies
- Cropland
- Mosaic cropland
- Broadleaved forest
- Needleleaved forest
- Mixed forest
- Grassland
- Shrub
- Sparse vegetation or bare ground
- Urban
- Water
- Snow and ice





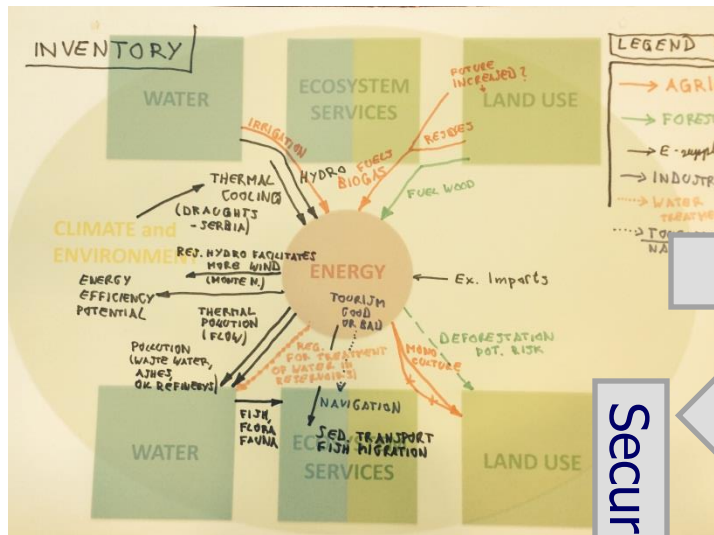
Nexus Workshop in Zagreb, Croatia

4-6 March 2014



- Organized with ISRBC
- Sava river basin essential for
 - Water provision
 - Agriculture
 - Navigation
 - Jobs
 - Energy sector development

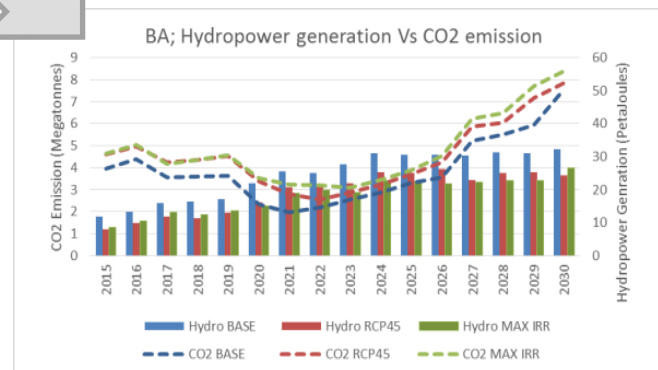
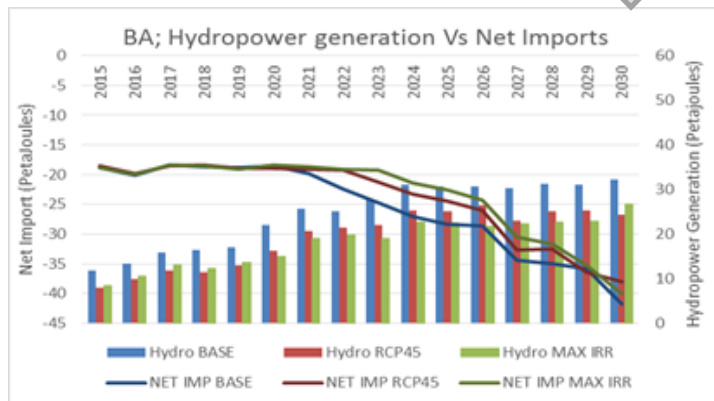
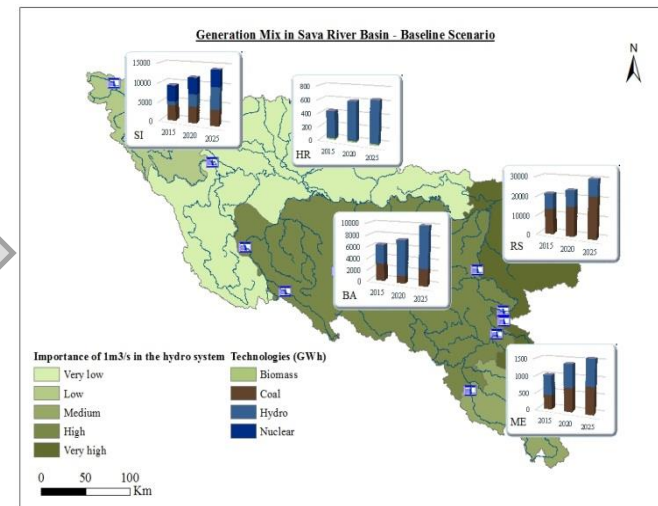
Integrated water-energy analysis



Value

Security

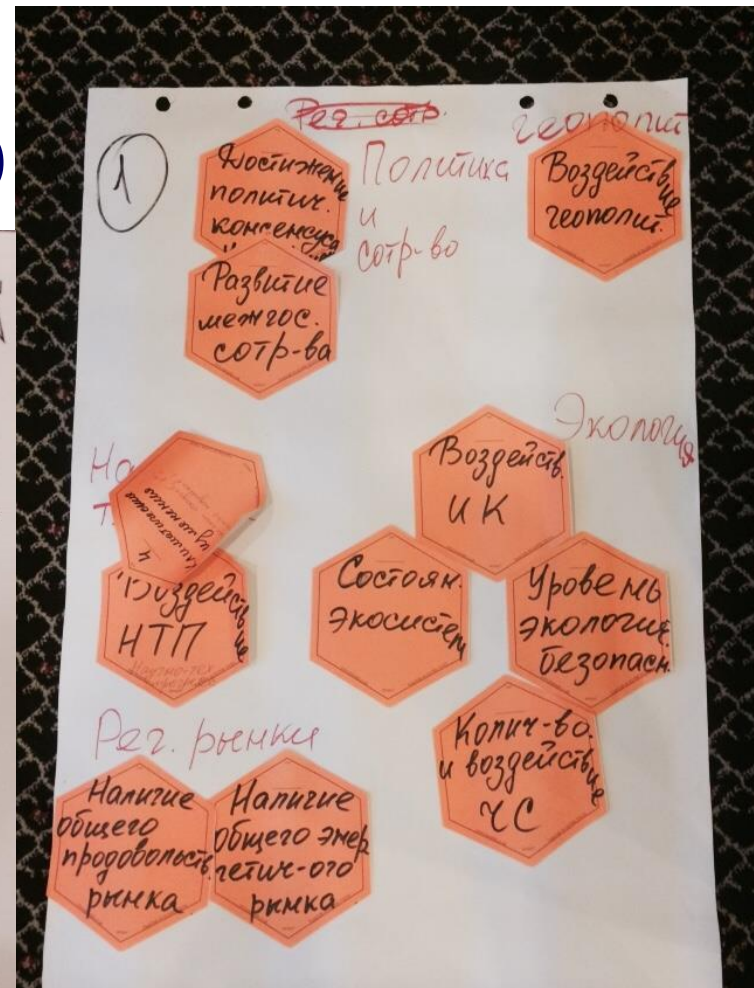
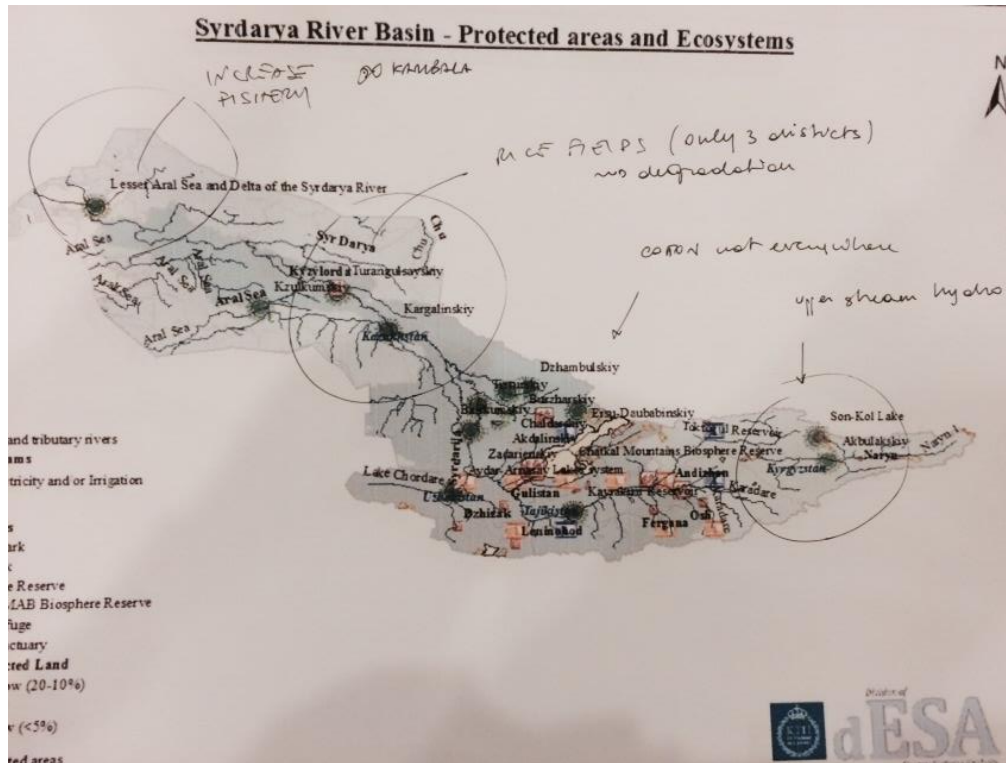
Environment



Nexus Workshop in Almaty, Kazakhstan

2-4 December 2014

- Nexus Security
- Hydropower, agriculture and environment
- Scenario thinking dialogue (FAO)



Conclusions



- National & regional development
 - Has local implications
 - Cuts across sectors
 - Can create vulnerabilities
- The nexus approach can help
 - Exploring policy inconsistencies and potential shared benefits
 - Better understanding interconnections
 - Informing dialogue
 - Selected quantification for operational solutions
- Conditions for a successful application of the nexus approach
 - From conceptual framework to practical and local applications
 - Active participation of stakeholders
 - Communicate benefits