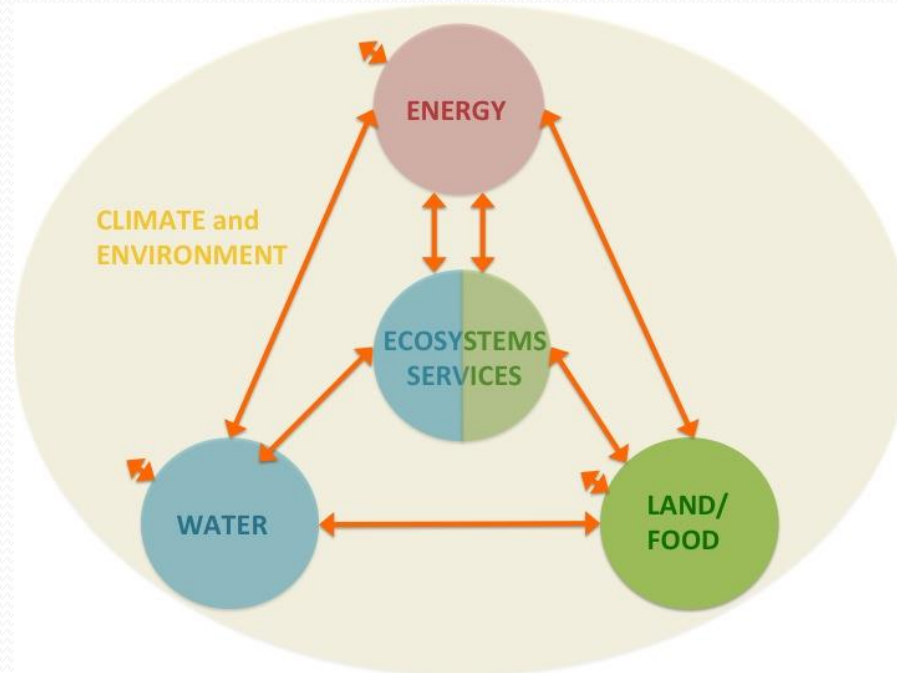


Assessing the water-food- energy-ecosystem nexus in transboundary basins

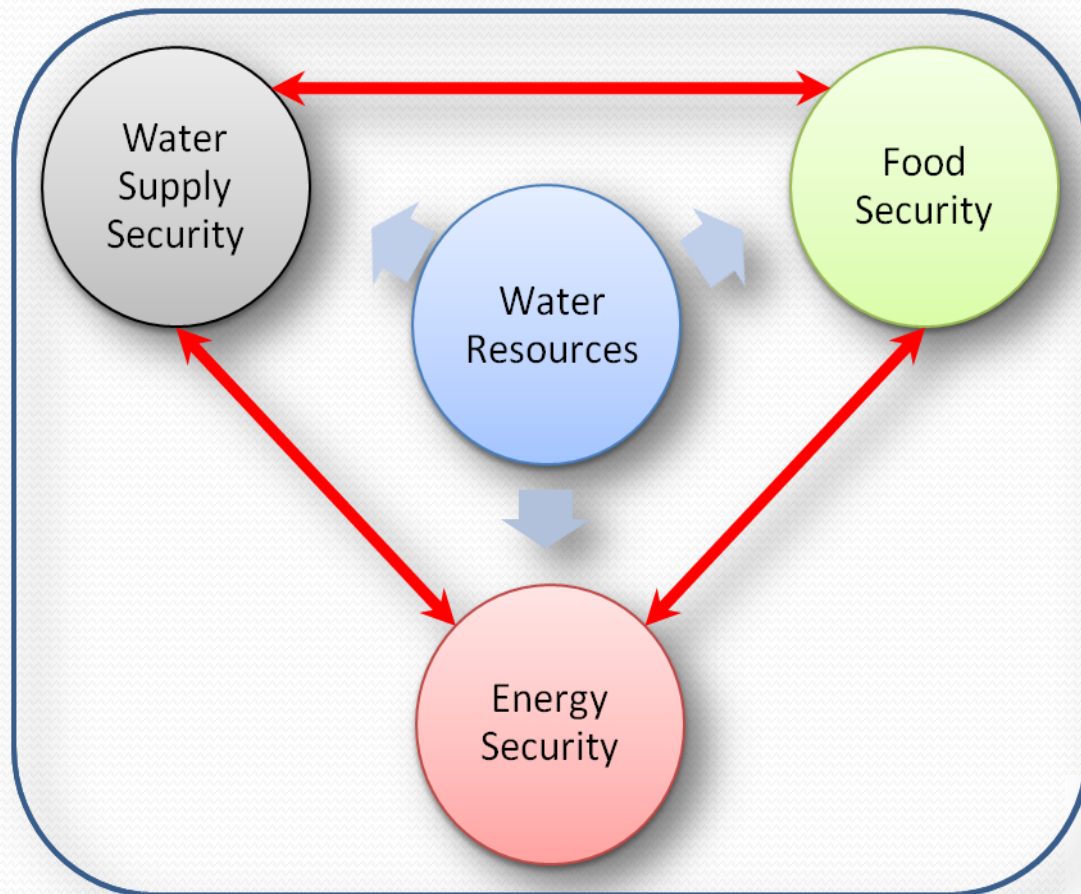


Dr. Annukka Lipponen, UNECE

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



Water, food and energy are inextricably interlinked & dependent on the ecosystems



The 3 dimensions of sustainable development

The social dimension

improve access to basic provisioning and water, energy and food securities

The economic dimension

Creating more wealth while using less resource input

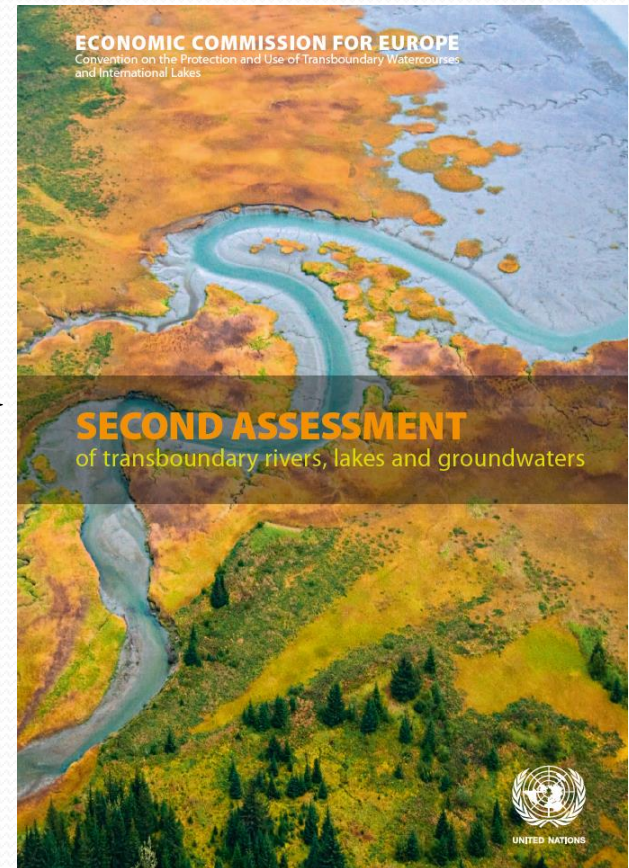
The ecological dimension

Investing to sustain ecosystems and ecosystem services



Background to the on-going nexus assessment under the UNECE Water Convention

- Among the obligations under the Water Convention (1992):
 - Carry out at regular intervals joint or coordinated assessments of the conditions of transboundary waters and the effectiveness of measures taken
- In 2003 the Parties decided on regular regional assessments; First Assessment in 2007, Second Assessment in 2011
- Latest assessment: Frictions between sectors about water use in many basins; weak policy integration and coherence



Links: between national and transboundary levels, with NPDs

- Shortcomings in inter-sectoral coordination a major challenge both on the national as well as transboundary levels, both in developing and developed countries
- The transboundary assessment under the UNECE Water Convention has parallels with the NPD process through which a cross-sectoral and stakeholder approach is also being implemented
- Expected that additional benefits and opportunities related to inter-sectoral coordination will also emerge at national level in the transboundary assessment process
- The approach and the results can inspire reflecting further on inter-sectoral work in the EECCA



Assessment of the Water-Food-Energy-Ecosystems Nexus under the UNECE Water Convention: key facts

- Part of the Convention's Work Programme 2013-2015
- Work overseen and guided by the Task Force on the Water-Food-Energy-Ecosystems Nexus
- Some 6-8 basins to be assessed, responding to requests – pan-Europe, Africa, Asia; different nexus settings, climate, resource scarcity etc.
- Key partners: Finland (lead)/Finnish Environment Institute SYKE, Royal Institute of Technology (Stockholm), FAO
- Methodology developed, aiming at a balanced approach
 - piloted on the Alazani/Ganikh (Georgia and Azerbaijan); basin workshop in November 2013
 - Assessment of the Sava on-going; workshop held in March 2014

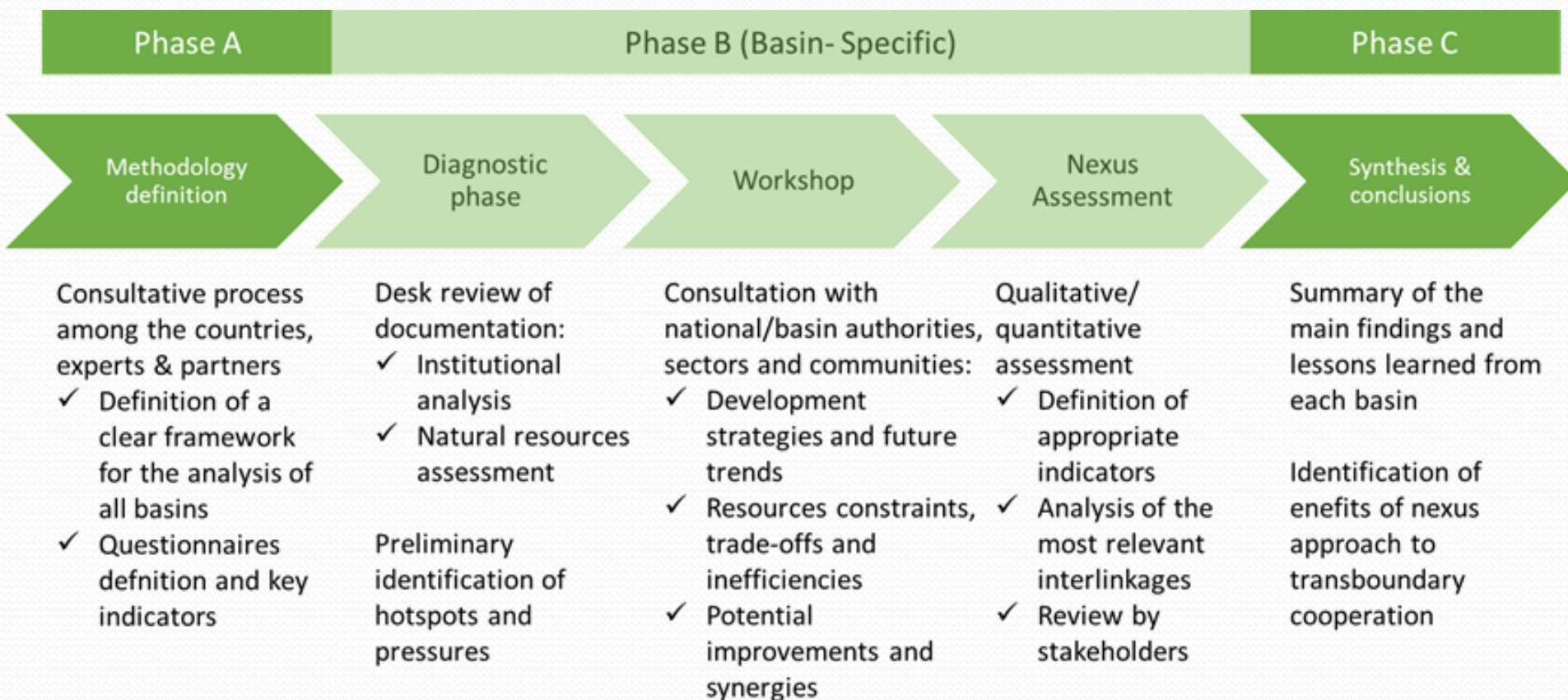


Substantive elements of the assessment

1. A survey with a factual **questionnaire** for a preliminary identification of the main pressures and hotspots
 2. A **desk review** of the available documentation
 3. A **participatory workshop** at transboundary level, with the economic sectors and other stakeholders to identify the inter-sectoral linkages and trade-offs & possible synergic actions
 4. **Indicator based analysis**. Limited quantification. An institutional analysis
 5. Preparation of **nexus assessment report** with the analysis i.e. Sectoral characteristics including development options; Inter-sectoral linkages and priority issues; **Qualitative future scenarios** (trends, climate change); **Potential solutions** identified, **policy recommendations**
- => basis for a later quantitative trade-off analysis (depending on the countries interest & availability of donor funding)



Approach in phases



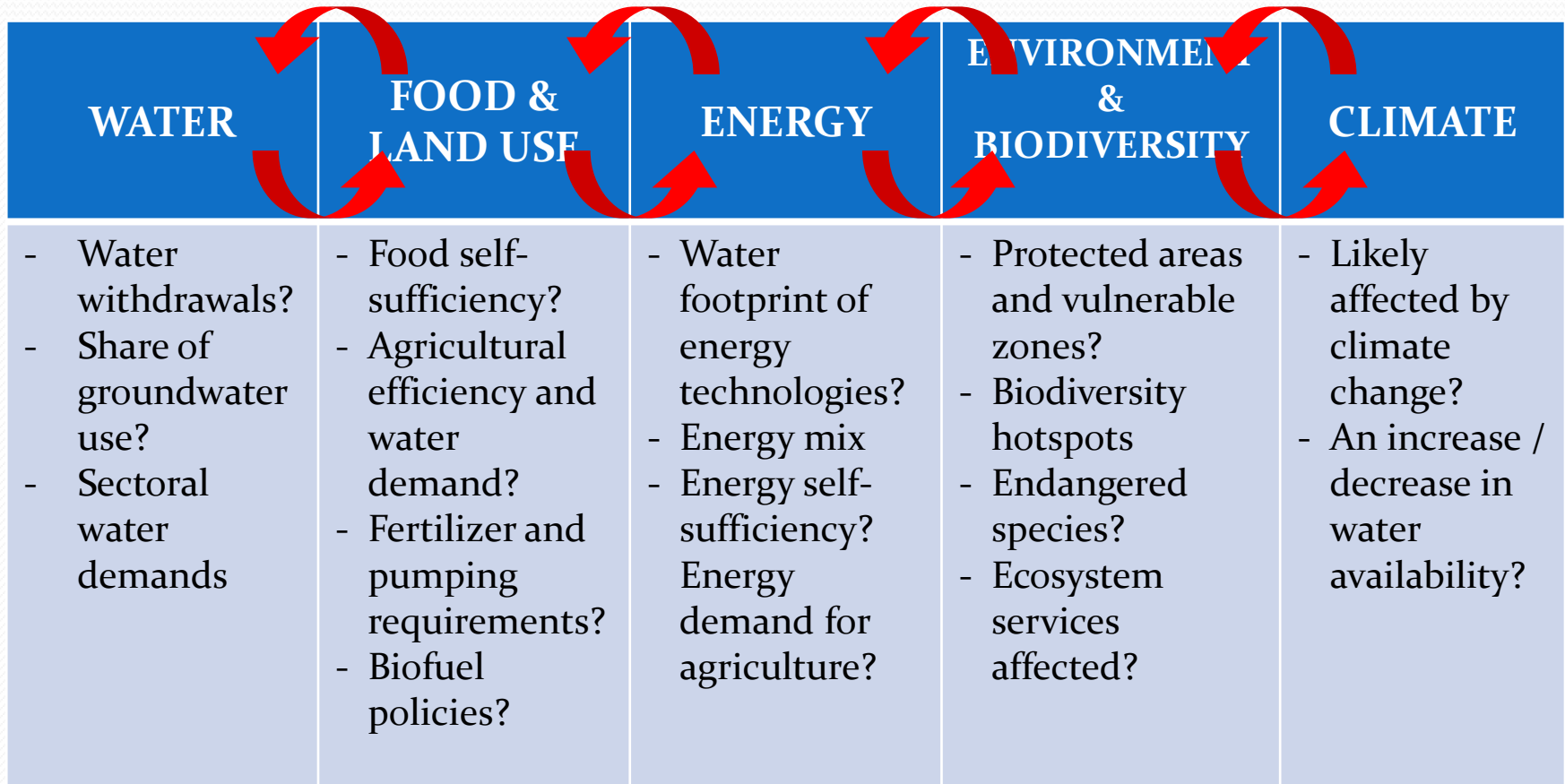
Draft outline of the basin assessments

- Geography of the basin
- Institutional assessment
- Brief overview of the sectors and resources of riparian countries
- Economic relevance of the basin
- National policies
- Selected transboundary issues with intersectoral impacts
- Possible intersectoral transboundary solutions
- Conclusions and recommendations
- Annexes: Comparative review of countries based on World Development Indicators, Basin indicators

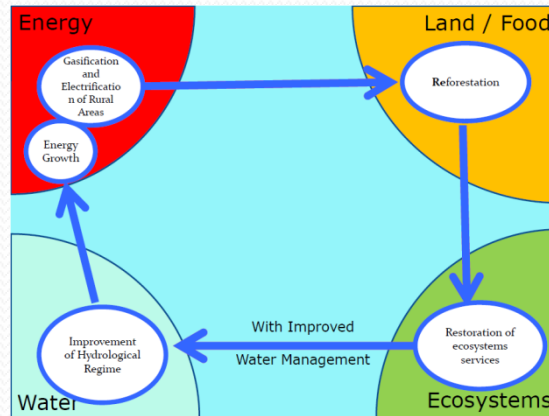
Defining Nexus Indicators:

- National level indicators (for riparian countries)
- Basin level indicators
- Specific indicators around the identified issues

Some examples of how the indicators are interlinked:



Alazani/ Ganikh pilot basin



- lessons about application of the methodology, refining the approach — thanks to Azerbaijan & Georgia, partner UNDP-GEF Kura project
- Energy policy's impact on the water regime, opportunities from agriculture sector's development etc.
- Challenges: combining local & international knowledge, overview vs. specificity, basin data, participation...
- Preparation & results could inform parallel processes: national IWRM plans, GEF SAP, developing bilateral cooperation
- Follow up?: In NPDs, continuation of the GEF project, EU Association related work, Azerbaijan's water sector reform, Georgian water legislation and energy strategy?

Sava Basin

- Basin workshop held in Zagreb 4-6 March 2014 with ISRBC; with some 50 representatives of the ministries and various interest groups from Bosnia and Herzegovina, Croatia, Montenegro, Serbia and Slovenia
- need for irrigation & investments in energy will grow, extreme weather events pose risks and may damage infrastructure, investments needed in land reclamation strategies
- Draft assessment being developed, some development scenarios modelled and quantified the framework of JRC Danube Water Nexus project
- contributing to further policy integration and dialogue with the key sectoral stakeholders; informs 2nd cycle RBMP preparation



Syr Darya

- Nomination of national focal points has been requested
- Cooperation with GWP in organizing the workshop and in the process
- Workshop 18-20 November 2014 (tentatively)
- Builds on & cross-fertilizes with e.g. FAO's Aral Sea scenario work and IUCN-IWA nexus infrastructure project on the Amu Darya
- Discussion of preliminary results at NPD Steering Committee meetings



Benefits of the assessment under the Convention

- **Improved knowledge base** about linkages between sectors to **support decision-making** at national, basin & transboundary levels, analysis/quantification of selected aspects; gaps
- **Joint identification of opportunities** for benefits and of solutions for capitalizing on the synergies, addressing trade-offs and reconciling different resource uses;
- **Promotion of dialogue between the different sectors** and the riparian countries at the basin level; bring together authorities, private sector, civil society
- **Exchange** of good practices
- **Capacity building**: workshops, exchanges, self-assessment, knowledge mobilization in the process
- Serves to inform/increase awareness, guide & stimulate action



Way ahead

- Methodology provides an overall frame that adapts to the setting and specific nexus issues – could be replicated
- Expected forthcoming assessments: NW Sahara Aquifer, Niger...
- Basin assessments January 2014 - April 2015; A general stock-taking report for the 7th Meeting of the Parties in November 2015
- Nexus Task Force meets next 8-9 September 2014 to review the work & plans; 3rd meeting in April 2015 to endorse the contents
- Processes for discussing the findings in each basin to be defined (e.g. the NPDs, where appropriate); cooperation in disseminating individual assessments? (subject to opportunities and resources)