www.unece.org/env/water/nexus.html

Reconciling different uses of water - work on the nexus in transboundary basins

Population growth, economic development, increased energy and food needs all exert increasing pressures on natural resources. Common development needs have to be met in a sustainable manner, without compromising the functioning of ecosystems. Energy, land management and water resources planning commonly take place in isolation, without adequate consideration of what the planned developments require or assume about other sectors, and of what implications – positive or negative – they have. Shortcomings in inter-sectoral coordination are a major challenge both on the national and transboundary levels, in developing as well as in developed countries. In a transboundary setting, the trade-offs and externalities may cause friction between the riparian countries and different interests. A nexus (or inter-sectoral) approach to managing the interlinked resources can enhance water, energy and food security by increasing efficiency, reducing trade-offs, building synergies and improving governance across sectors. What policies, technologies, actions can help to move in that direction?

Recognizing the related challenges, the Parties to the UNECE Water Convention decided on an assessment of water-food-energy-ecosystems nexus to be carried out by the autumn of 2015. A representative set of transboundary basins in the pan-European region and beyond — based on proposals from the countries – are to be included. The approach to the assessment was presented at the meeting of the EU Water Initiative Eastern Europe, Caucasus and Central Asia Working Group in Helsinki on 24 and 25 October 2013.

The assessment aims at identifying, together with the concerned sectors and relevant stakeholders, 1) hindrances to and opportunities for additional and equitable sharing of benefits from stronger integration across sectors, and 2) practical solutions for improving security and for reconciling the different sectors' needs. The process has been designed to support ownership by the authorities, meaningful participation of various stakeholders, learning together and exchanging experience between basins. This assessment under the UNECE Water Convention has parallels with the national policy dialogue process through which a cross-sectoral and stakeholder approach is also being implemented.

The work is overseen by the Task Force on the Water-Food-Energy-Ecosystem Nexus, including at the following meetings:

First meeting 8-9 April 2013

Second meeting 8-9 September 2014

A pilot assessment was undertaken in the Alazani/Ganikh River basin. Other transboundary river basins where nexus assessment is expected to be conducted in 2014-2015 include the Sava, Isonzo/Soca, Narva, Syr Darya, Niger, Mekong and the North-West Sahara Aquifer (some pending confirmation).

Pilot project in Alazani/Ganikh basin

To test the methodology that has been developed, assessment of the Alazani/Ganikh Basin, shared by Azerbaijan and Georgia, was initiated to form a holistic picture of the situation and to identify integrated crosssector solutions where through joint action additional benefits can be achieved by both riparian countries. As a key step in the process, an inter-sectoral basin level workshop was organized involving the economic sectors, notably agriculture and energy, as well as water and environment administrations, companies and civil society representatives. The workshop was organised from 25 to 27 November 2013 in Kachreti, Georgia in cooperation with UNDP/GEF project "Reducing Transboundary Degradation in the Kura Ara(k)s River Basin" and co-hosted by the Ministry of Environment Protection and Natural Resources of Georgia.

At the workshop the participants engaged enthusiastically in group discussions, resulting in broadened understanding of the linkages between different sectors. Overall, it was noted that climate change was likely to increase flooding events as well as scarcity of water in the basin. Therefore it becomes crucial to assess how best to cooperate between countries and sectors in managing water resources. In doing so, participants recognized the decisive importance of energy policies for protecting ecosystems and water resources from the negative effects of deforestation. They also concluded that improving water infrastructure, including for irrigation and treatment, would be a helpful step in reducing pressure on natural resources and improving local economy. A consultative process for reviewing and developing the basin assessment with the riparian countries has been laid out. The findings contribute to the National IWRM plans for Georgia and

Azerbaijan being developed with the support of the UNDP/GEF Kura project. It is 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 of the series of assessments can inspire reflecting further on inter-sectoral work in the EECCA, including future work under the NPDs. Other transboundary river basins where nexus assessment is expected to be conducted in 2014-2015 include the Sava, Isonzo/Soca, Narva, Syr Darya, Niger, Mekong and the North-West Sahara Aquifer (some pending confirmation).

Assessment of the Sava River basin

The second nexus assessment is of the Sava River basin, with the kick-off workshop on 4-6 March 2014 in Zagreb.

What is the nexus?

The nexus term in the context of water, food (agriculture) and energy refers to these sectors being inextricably linked so that actions in one area commonly have impacts on the others, as well as on the ecosystems.