



3rd Almaty
Energy Forum

Session 3: Water-energy nexus and energy system resiliency



6 November 2023

15:30 – 17:30 (UTC/GMT +6 hours)
Independence Hall

BACKGROUND

Central Asian countries represent a classic example for exploring the interlinked and often competing inter-sectoral and cross-border claims to common resources. Such claims often create sources of real or potential tensions, while at the same time highlighting opportunities for optimizing the shared use of water, energy and food resources in the basin and – in a wider context – the whole Central Asia. Centralized Soviet planning, which was predicated on the interests of the entire union prioritized agricultural production, and in particular the strategic growing of cotton on newly irrigated lands. At the same time, Central Asia contained sufficient fossil fuel resources to cater for the energy needs of the republics.

With independence came new challenges, and fuel and energy quickly became commodities less willingly traded for water. The changed use of upstream hydropower had consequences for water access of irrigated agriculture, the importance of which grew even further as regional trade declined and the countries had to rely more on their own production.

Over the past 30 years, the countries of Central Asia have made continuous achievements in inter-sectoral and upstream-downstream coordination, while they also face remaining and emerging challenges such as increasing demands for natural resources and impacts of climate change. This indicates that significant benefits can be gained from a strengthened cooperation on the nexus between water and energy to ensure the enhanced resilience of the Central Asian countries.

Efforts to enhance inter-sectoral and upstream-downstream coordination span a wide range of administrative, financial, legal and technical issues. For example, it is encouraging to see examples such as the trilateral agreement in January 2022 among Uzbekistan, Kyrgyzstan, and Kazakhstan regarding the Kambarata-1 HPP. In July 2022, the Heads of Central Asian States reiterated the importance of strengthening mutually beneficial co-operation on the integrated and rational use of water and energy resources, considering the interests of all countries in the region.

For more information about the event please visit

<https://unece.org/>



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New technological solutions are also emerging to support the nexus approach. Examples include more efficient irrigation, laser levelling of crop fields and local-scale water-efficient management, which save water so that more fiber and food can be produced with less water. Increasing overall energy efficiency in the countries and using cost-efficient alternative or complementary technology for energy production may make upstream countries less dependent on hydropower with improved access to water for agriculture downstream as a consequence. Potentially this may also improve economic performance as excess electricity could be exported to South Asia neighbors. Lowering regional barriers to food trade makes it possible to produce food where the conditions are more favorable, thus lowering pressure on agriculture in water-deficit areas – hence saving water and reducing energy use for pumping it.

A more integrated energy system can help countries co-optimize the use of water use resources at regional level, thereby increasing the resiliency of energy, water, and food production systems.

OBJECTIVE AND EXPECTED OUTCOMES

In this session energy and water sector stakeholders will be invited to discuss the interdependency of energy production and water resources management, challenges and opportunities for enhanced cooperation on the water-energy nexus at the national and regional levels.

The objective of the session is to discuss and agree on possible ways forward on the following questions:

- What are the major challenges to efficient coordination between energy and water sectors in Central Asia?
- Could enhanced energy connectivity help the countries diversify energy production at scale, and pursue more coherent and efficient water and energy resource management across the region?
- What further challenges and opportunities do the emerging low carbon / energy technologies create for coordination?
- What could be possible options to enable financing for measures to enhance coherent energy and water management, including energy connectivity?

From the discussions, the stakeholders will seek to identify concrete actions that need to be taken to further ensure energy and water interdependency at the expert and regulatory levels.

AGENDA

15:30

High-level remarks

15:40

Challenges and opportunities for enhanced cooperation between water and energy resource management in Central Asia

- Ms. Zulfiya Suleimenova, Special Adviser of President of Kazakhstan on International Ecological Cooperation
- Deputy Minister of Energy and Water Resources of Tajikistan
- Mr. Jürgen Keinhorst, Chair of the UNECE Sustainable Energy Committee, Co-chair of the GREEN Action Task Force, hosted by the OECD the OECD committee

15:45

Presentation 1

16:00

Prospects for water and energy nexus in Central Asia

- Ms. Dinara Ziganshina, Director, SIC ICWC / Mr Matthew Griffiths, Senior Programme Manager, OECD

16:00

Panel discussion

16:40

National and regional initiatives towards enhanced coordination between energy and water sectors in Central Asia

Moderator: Ms. Zulfiya Suleimenova, Special Adviser of President of Kazakhstan on International Ecological Cooperation

Panelists:

- Representative of the Ministry of Energy and Water Resources of Tajikistan
- Representative of the Ministry of Energy of Kazakhstan
- Mr. Khamidula Shamsiev, Dispatch Center "Energy"
- Ms. Tatiana Vedeneva, Center for Renewable Energy and Energy Efficiency Development, Kyrgyzstan
- State Water Management Committee of Turkmenistan

Q&As : all participants

16:40

Panel discussion

17:25

International financing and projects for enhanced cooperation between Central Asia's energy and water sectors

Moderator: Ms. Dinara Ziganshina, Director, SIC ICWC in Central

Panelists :

- Ms. Nadejda Khamrakulova, Economic Affairs Officer, UNECE Sustainable Energy Division, and Ms Tamara Kutonova, Environmental Affairs Officer, UNECE Environment Division
- Mr. Sergey Tulinov, Economic Affairs Officer, ESCAP
- EU Delegation (Kazakhstan or Tajikistan)
- Mr. Dmitry Petrin, Senior Operations Officer, World Bank
- Mr. Evgeny Kransov, Executive Director, Energy, Eurasian Development Bank
- Ms. Ekaterina Strikileva, Head of the Capacity Development and Education Program of the USAID Regional Water and Environment Project, USAID
- Mr. Alexandr Nikolayenko, Senior Regional Adviser, Green Central Asia GIZ

Invitees: CAREC, AIIB, EFSD

Q&As: all participants

17:25

Closing of the session

17:30

- Ms. Zulfiya Suleimenova, Special Adviser of President of Kazakhstan on International Ecological Cooperation