



EU-Central Asia Network on Water Science & Technology

Richard Burger
DG Research & Innovation
European Commission

**International Conference "Promoting regional
water sector dialogue and cooperation in
Central Asia through knowledge networking,
partnerships & education", 03-04 March 2021**



EU-Central Asia Network on Water Science & Technology

Proceeds from the objectives of EU policies towards Central Asia and Afghanistan and corresponds to EU policy guidelines for 'water diplomacy':

- June 2017 Council of Ministers conclusions on an EU Strategy for Central Asia*
- November 2018 Council of Ministers conclusions on Afghanistan*
- November 2018 Council of Ministers conclusions on water diplomacy*
- May 2019 EEAS - European Commission Joint Communication on New Opportunities for a Stronger Partnership EU - Central Asia*

Purpose of the Network

- Serious challenges related to water availability, quality & management in Central Asia and Afghanistan call for sustainable solutions based on **joint efforts among the countries**.
- **Scientific and technological cooperation** is understood as an important enabler to address these problems, providing innovative solutions, informing policies with reliable evidence & facilitating regional cooperation.
- The European Union (EU) acknowledges the need for **intra-regional cooperation** among the Central Asian countries (EU-Central Asia Strategy).
- Supporting a **strategic partnership** with countries in Central Asia, to bring together European and Central Asian policymakers, research institutes and universities, funding agencies, companies, NGOs and local communities.

Activities of the Network

- **First network meeting** 1-2 April 2019 in Tashkent.
- **Second network meeting** planned for March 2020 in Almaty - cancelled due to the pandemic - substituted with **interview and survey research** among EU and CA water experts.
- Complementing these policy-level oriented meetings, **three successive thematic workshops** to identify priorities for the different target groups of the network.
- Contract ends in spring 2021.



Thematic workshops

1. **Water management and uses – nexus with climate & food**
2. **Water quality**
3. **Water, ecosystems and energy**

Workshops in **Dushanbe, Tajikistan (June 2019)** and **Bishkek, Kyrgyzstan (November 2019)** with 58–78 participants from all five Central Asia countries & Afghanistan and EU countries (AT, BE, BG, NL, DE, ES, FR, IT).

Thematic priorities identified

Glacier melting, irrigation solutions, innovations for sustainable water use and farming, improved water management, water treatment and reuse, small hydropower in Central Asia, water pollution, ecosystems...

Suggested activities from the network (challenges)

- **Facilitating dialogue on water issues** through contributions to exchanges, meetings & cooperation among **researchers, innovators, policy makers and businesses**, e.g. in the context of the International Fund for Saving the Aral Sea (**IFAS**). Contributions to networking, mediation and a platform for **dialogue and negotiations**.
- **Workshops** as a tool for both formal and informal exchanges between various groups of stakeholders throughout the region.
- **Specific conferences**, e.g. on Central Asia and climate change, on energy, etc.

Suggested activities from the network (challenges)

- **Extended training** for government departments and support for upgrading their infrastructure (hardware, skills, experience)
- **Data exchange:** support for data exchange is needed and international partners/organisations should encourage the availability and exchange of such data (incl. digitisation of relevant historic data).
- **Coordination of activities** of international donors, organisations *et al.* on water and related issues in the region (e.g. Planet cluster coordination mtgs.) could be helped by a joint information platform.

Suggested activities from the network (challenges)

- **Attracting and training young researchers.** To counter lack of young researchers & experts in water questions and ageing of human resources (e.g. hydro-engineers).
- **Support of joint research & innovation projects.** To promote cooperation, knowledge-sharing & exchange of know-how with European partners.
- **Standards:** Importance of dialogue & training on environmental (water-related) standards – building common understanding & trust.
- **Socially innovative solutions to regional & local challenges:** Promoting eco-friendly, sustainable means of production (irrigation modes, vertical farming, production & marketing cooperatives, replacement of water intensive techniques & production).

Suggested activities from the network (challenges)

- **Effects of the water situation on the population** to be investigated and remedies devised. Increasing natural hazards, droughts, etc. lead to depopulation in certain regions. Adequate provision of population with quality water to be ensured.
- **Adjustment of 'water narratives'**: away from current country-specific narratives with focus on national differences towards a shared understanding of the region's common problems and their interconnections & interdependences of the countries.

Outcomes of stakeholder interviews: Key challenges

1. Effects of climate change on water as the most urgent issue, impacting all other topics of relevance.
2. Water availability for agriculture (food security, water-intensity of current irrigation methods) and related disputes over transboundary rivers.
3. Water availability for energy production and related disputes over transboundary rivers.
4. Natural hazards and extreme weather events in combination with land degradation and soil erosion leading to landslides, mudflows etc. and the impact of these developments on the local population.

Interview outcomes: Priority issues

Research and networking focus

- Social aspects (e.g. effects on society, vulnerable groups)
- Water pollution (e.g. drainage, municipal waters, mining activities), water treatment, re-use and irrigation
- Changing river runoffs (glacier melting), continuing Aral Sea crisis

Proposed areas of priority attention (intervention)

- Ecosystems protection & restoration (wetlands, retention areas)
- Moving from water-intensive to sustainable eco-friendly agriculture & crop production
- Modernisation of water management structures
- Ending deforestation, sustainable valorisation of forest products (where regionally relevant)

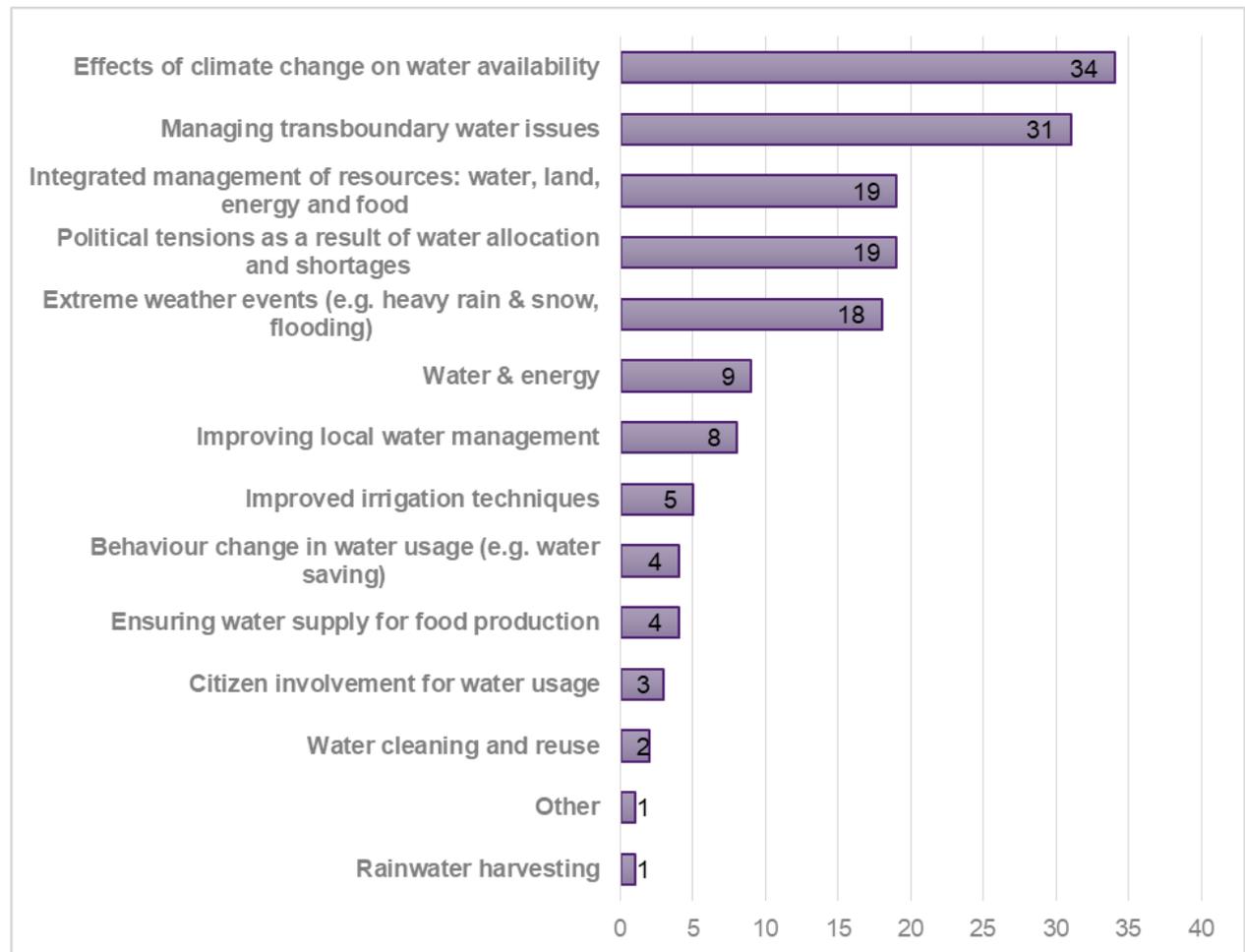


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Water challenges in Central Asia

Results of survey among EU and Central Asia water experts, December 2020

Around 270 stakeholders were invited through mail or phone calls to participate in the survey; 54 completed the survey; ~20% response rate

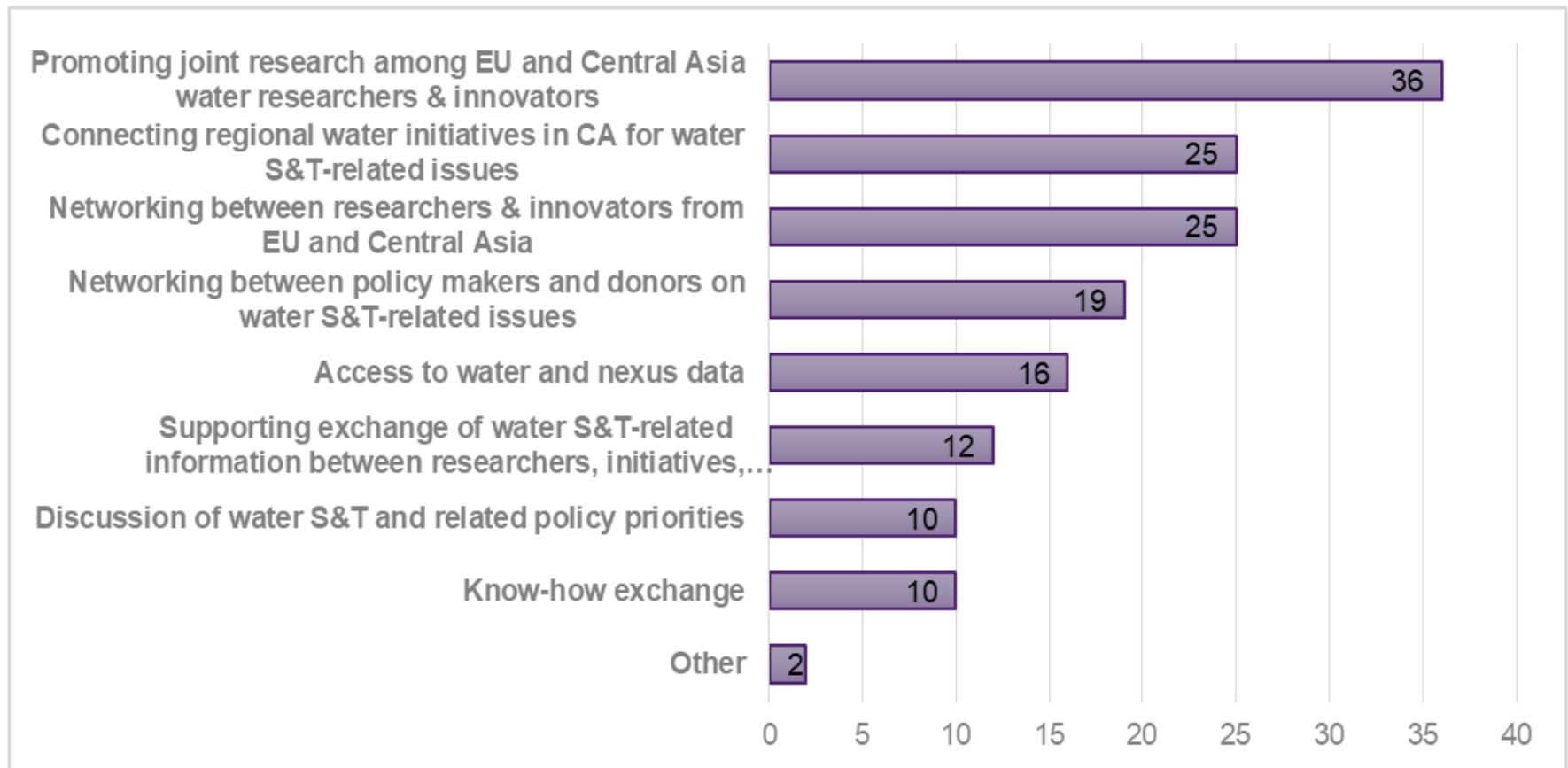




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Areas of cooperation

Results of survey among EU and Central Asia water experts, December 2020



Next steps – “Invitation to all of you”:

- *Identify possibilities to valorise the network’s work in the future*
- *Identify priorities for a continuation of the network’s activities, with focus on the needs & interests of policy-makers and donors as regards the specific science & technology aspects of water challenges in Central Asia.*

13 Partners:

Research, industry and consulting from EU and Central Asia

Project aims:

- Bring together **industry, politics & science from CA and EU** to demonstrate visionary, sustainable & innovative European **small-scale HPP** technologies in **Central Asia**
- Optimise the sustainability impact of SHPs by focusing on long-term solutions in a climate-sensitive, transboundary **WFEC nexus** context
- Implementation of a GIS-based decision support system covering all CA countries for **unexploited SHP potentials**
- Development of scalable **Water Accounting System** to manage water resources in a sustainable way
- Support the **competitiveness** and **sustainable market uptake** of European SHP **technologies** in CA and globally

Budget: ~€ 11.5 mln. (EU contribution ~€ 9.9 mln)

Planned duration: June 2021 – May 2026

Technologies demonstrated:

- Hydro Shaft Power Solution (HSPS) in Kazakhstan
- Francis Container Power Solution (FCPS) in Uzbekistan

HYDRO4U



Status:

In grant
preparation,
planned project
start June 2021

Contact: Peter.Rutschmann@tum.de



Thank you!

Richard.Burger@ec.europa.eu