

Summary of the webinar “Outlining the economic foundations of regional cooperation on water in Central Asia”

organized in the framework of the Programme “Water as a driver of sustainable recovery: economic, institutional and strategic aspects of water resources management in Central Asia”

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The webinar was opened by **Ambassador Guy Bonvin, Swiss Special Envoy for Water in Central Asia**. In his statement “**Bottlenecks and opportunities for water cooperation in Central Asia**” he emphasized that at the time of translating the expressed strong political will into investment of key water-energy infrastructures, the countries’ governments are fully aware of the capital intensive nature of such infrastructure investments, of **the necessity of stable agreements between trustful parties** and are developing efforts to ensure such an enabling environment. This **collective endeavor** must be supported: it is a teamwork, across sectors and professions, across countries, **mobilizing large financial resources to effectively secure robust socio-economic development and resilience** to the environmental challenges.

The **Chairman of the Executive Committee of the International Fund for Saving the Aral Sea** in his keynote address underlined that outlining and establishing an economic basis for regional cooperation on water would facilitate the solution of problems in other sectors too, including energy, agriculture and the environment. Identification of economic advantages of water cooperation could play a key role in integration processes within the region.

The countries of the region have lost precious time since gaining independence by putting too much emphasis on self-reliance and self-sufficiency in every area. Billions of dollars have been spent on building new power stations, transmission lines, transport corridors and even the crop patterns have been changed to achieve food self-sufficiency.

In reality, it is impossible to achieve complete independence in all these areas. There are numerous infrastructure links connecting the countries of the region - transport, energy, trade. It is not possible to resolve problems without cooperation.

The resources spent on ensuring self-sufficiency could have been better spent on building new infrastructure, economic development and the solution of social problems.

The 2006 UNDP Human Development Report estimated that the losses of the region caused by inefficient water resources management amounted to 1.75 billion USD, equivalent to 1.75% of regional GDP. In 2017 the Regional Environmental Center for Central Asia and ADEPHI, with financial support by the Swiss Development Cooperation, prepared an analytical study with the title “Rethinking water in Central Asia: the costs of inaction and benefits of cooperation”. The main conclusion of the paper was that the **losses of the region due to inaction amounted to 4.5 billion USD.**

The lion share of these losses stems from insufficient cooperation in the water and energy sector. During Soviet times these sectors operated in an integrated manner, balancing seasonal fluctuations in demand for electricity and water. In the summer period upstream countries provided downstream partners with water for irrigation from their reservoirs and downstream countries supplied their upstream neighbors with electricity and fossil fuels in winter time.

The Unified Electricity Grid of Central Asia was part of the water and energy complex of this huge economic area. It was capable of providing a reliable energy supply to all countries of the region and made possible transit and trade in electricity. Unfortunately, the system is not functional today.

Climate change is aggravating problems. In the recent decade winters were longer and colder, and summers were hotter and dryer in the region. **As a consequence, demand for electricity in winter and demand for water during the summer increased. Existing capacities - both in electricity generation and flow regulation - are insufficient to meet regional demand.**

Last summer Tajikistan was forced to suspend the export of electricity to Afghanistan and Uzbekistan. Uzbekistan and other downstream countries experienced shortage of water in the middle of the irrigation season. The unusually cold and long winter this year forced Tajikistan, after three years of stable, continuous electricity supply, to introduce limitations on electricity supply from 1 January, which continues till today.

Difficulties continue this year: energy experts of Tajikistan, quoting low water flows of rivers, are against lifting limitations. Energy experts of Kyrgyzstan, due to low water levels in the Toktogul reservoir and an expected low water year, intend to import electricity and run thermal power plants at full steam. These problems may persist till next year. Water experts of Kazakhstan and Uzbekistan warn of another low water year and water shortages.

Countries can cope with such difficulties and avoid huge losses only through coordinated and sustained action. Tajikistan and Uzbekistan cooperated in the operation of the Barqi Tojik reservoirs during last year's vegetation period. In order to satisfy the needs of Uzbek water users, the Tajik side released additional amounts of water from the reservoir, till water level dropped to a critical mark. Some pumping stations were unable to function. In exchange the Uzbek side provided material and technical assistance and increased water flows in the BFK and SFK canals to compensate for the losses of the Tajik side. Tajikistan and Kazakhstan have cooperated in a similar way for years. As a result of such cooperation, the countries have avoided losses and even gained a lot. What is the most important: a solid basis for trust is being established. Trust is a key component of inter-state relations.

Relationships of trust are becoming the basis for the strengthening of regional cooperation. In recent years a platform for the regular dialogue of heads of state has been established, thanks to annual summits and expert level meetings.

Tajikistan and Uzbekistan decided to jointly build two HPS of a joint capacity of 320 MWh on the Zeravshan river. Tajikistan, after almost ten years of suspension, renewed electricity exports to Uzbekistan. **The Uzbek side expressed its readiness to participate in the implementation of hydroelectric projects in Kyrgyz Republic.** All these developments demonstrate the readiness and political will of Heads of State and governments to undertake resolute steps to lay the foundation for integration processes and achieve economic advantages. Improved political relations between Tajikistan and Uzbekistan led to a significant growth of bilateral trade: during the last four years trade turnover increased 30 times, from USD 12 million in 2015 to USD 360 million in 2019. The two countries plan to increase bilateral trade to USD one billion in the coming years.

The implementation of joint projects, especially in the water and energy sector, would multiply the successes of recent years and greatly benefit all countries. There are many advantages offered by joint hydroelectric projects:

- Production of cheap, renewable, ecologically clean energy to satisfy increasing demand.
- Achieving water security and guaranteed water releases for irrigation in every Central Asian country even under conditions of climate change by building reservoirs capable of multi-year and seasonal regulation.
- Saving oil, gas and coal reserves, which today are intensively used for electricity generation.
- Reducing CO2 emissions.
- Reducing risks caused by extreme weather patterns, like droughts and floods, which every year cause significant damage.

A key precondition of the implementation of collaborative projects is strengthened trust and ability to operate these installations jointly, in the interest of all parties, ensuring both electricity supply and timely water releases. Another important precondition is the interest of investors: international development banks and other investors are always ready to participate in such projects. It is much more advantageous to build HPS with reservoirs in the mountains: construction costs are lower and water losses through evaporation and filtration are smaller. More extensive use of hydropower is a global trend: it is part of transition to renewables and the development of a “green” economy.

Climate change provides powerful arguments in favour of collaboration.

Climate change mitigation and adaptation, building resilience to its effects make regional cooperation a must. While at this stage it would be difficult to provide a quantitative assessment of the benefits of cooperation, the cost of non-cooperation is easier to quantify. E.g. in 2000 - 2001, due to two years of drought, 300 thousand ha. of agricultural land at the lower reaches of the Amudarya had to be taken out of cultivation. According to SIC ICWC data, losses in the agriculture of Uzbekistan amounted to USD 248 million and in Turkmenistan about USD 130 million. Compensation paid out by the state for the losses was about USD 250 million. Water shortage of 11.1 km³ caused losses amounting in total to USD 578 million.

The clear understanding of the problems and efforts to promote integration, and find cooperative solutions is encouraging. **Finding regional approaches to the use of water and energy resources in Central Asia will facilitate their more effective management, strengthened water security, economic growth, increased welfare of the population and achievement of sustainable development.**

The **representative of EB IFAS in Kazakhstan** spoke about **cooperation to protect the quality of water of the Syrdarya river.** Experts forecast increasing water shortages in the coming years in this basin. In 2020 flows into the Aral Sea were reduced to 1200 million m³, which is three-four times less than in previous years. Areas protected under the Ramsar Convention experience a water shortage of 500 million m³. **Water quality has deteriorated to alarming levels**, due to high concentration of nitrites, phenol, iron and oil derivatives. Levels of pesticides are also high in the vegetation period. In February 2016 the level of mercury was 42-92 times higher than the established norm. Levels of other metals are also exceeding the limits. The overall pollution level of the river is moderate (3rd class).

In 2016 there was an exchange of letters between the ministries of foreign affairs of **Kazakhstan and Uzbekistan** on water quality. In 2017 the First Deputy Prime Ministers of the two countries **agreed on a road map for cooperation, among others on water quality.** In 2020 line ministries signed an updated road map. In recent years several meetings of a working group on environmental protection and water quality took place. Four additional monitoring posts, complemented with

laboratories, were established to improve joint monitoring. The working group also agreed to monitor 28 polluting agents. The joint working group plans to issue an invitation to Kyrgyzstan and Tajikistan to join this cooperation, which is in line with the communique of the summit of Heads of State of IFAS member countries in August 2018 that emphasized the necessity to adopt coordinated measures to reduce water pollution.

A strategy for melioration and planting Saksaul bushes in the dry bed of the Aral Sea by Kazakhstan and Uzbekistan has also been developed. Kazakhstan has so far planted 300 thousand ha out of an overall area of 2 million ha. In the coming years, an additional 213 thousand ha will be planted. Uzbekistan has planted forest on 850 thousand ha in the dry bed of the Aral Sea. This area will increase to 1.2 million ha. between 2019 and 2028.

The **representative of the MFA of the Kyrgyz Republic** emphasized that water is at the heart of SDG-s. While Kyrgyzstan has significant water resources, arrangements facilitating the economically sustainable accumulation and storage of water are not in place. **There is a need to develop a system of complex use of water and energy resources in the region, with the objective of achieving sustainable development in all Central Asian countries.** Water quotas adopted in Soviet times are not in line with the needs of every Central Asian country. There is a need for a review, taking into account the interests of every country of the region. The activities of regional organizations in charge of the management of shared water resources must take into account the interests of every country, upstream and downstream alike. If this principle is not reflected in their activities, they need to be reformed.

Kyrgyzstan consistently calls for the elaboration and introduction of mutually advantageous economic mechanisms in the water sector. It is ready to renew and improve cooperation with Kazakhstan, Uzbekistan and Tajikistan in the framework of the 1998 Agreement on the use of water and energy resources of the Naryn-Syrdarya rivers.

The resolution of the above problems in a mutually acceptable way depends first of all on the presence of political will. **Central Asia is emerging from a period when every country defined its positions and rights independently and is entering a new period of negotiations and constructive dialogue with the objective of reaching collective solutions to achieve mutually advantageous cooperation and sustainable development.** Every country will gain from the development of the huge integration potential of the region.

The **representative of the Institute of Strategic and Regional Studies under the President of the Republic of Uzbekistan** commended the work of the Programme, which thanks to stable participation of Central Asian and international experts is

accumulating a significant amount of valuable information. Thanks to the three webinars, **participants are arriving to a shared understanding of the problems on the agenda and start outlining solutions.**

There are numerous problems concerning the use of transboundary water resources, but thanks to the political will displayed by the leaders of Central Asian countries **a strong positive change is underway, laying the foundations for a mutually advantageous water partnership.**

Just a few years ago the countries of the region waged an information war on building large hydrotechnic installations. Every party stuck to positions reflecting their own interests. President Mirziyoyev from the first day in office started to look for ways to resolve this stalemate. **Regional cooperation was placed in the center of Uzbekistan's foreign policy, including water cooperation.**

During the visit of the President of the Kyrgyz Republic, Mr. Sadyr Japarov on March 11 and 12 to Tashkent, the parties expressed full readiness to strengthen mutually advantageous cooperation on water and energy. The most important result of the visit was the **agreement on the joint implementation of the investment project of the Kambarata 1 HPS in Kyrgyzstan.**

According to plans, a bilateral coordinating council will be established. It will decide on the form of cooperation, on the invitation of investors, the distribution of shares, and the participation of Uzbekistan in the project. When this preparatory work is finished, an inter-ministerial committee of the two countries will adopt a decision on the implementation of the project. The issue of joint investment had already been discussed during the visit of the President of Uzbekistan in Kyrgyzstan in 2017. The then President of Kyrgyzstan, Mr. Atambayev assured his partner that **“not a single HPS will be built in Kyrgyzstan without Uzbek participation”**.

Another significant achievement is the agreement of Uzbekistan and Tajikistan to build two HPS of a combined capacity of 320 MWh on the Zeravshan river. The Presidents of Uzbekistan and Tajikistan signed a joint declaration on this project on 17 August 2018. The implementation of similar projects, serving the interests of one or more countries, allows the interested countries to control the process of building large HPS, jointly evaluate the level of safety as well as risks, jointly monitor water levels in the reservoirs and control water releases in the growing season, taking into account irrigation and energy needs of the parties.

As foreign experience shows, the water of **transboundary rivers should be managed and effectively used by all interested countries** on the basis of solid legal frameworks in accordance with international law, using modern technologies to monitor water pollution and water levels and through joint projects to introduce water saving technologies.

The **representative of the State Committee on Water Resources Management of Turkmenistan** reminded participants that water is a finite resource: its management needs to be continuously improved so it is rational and effective, it must be protected from pollution and its harmful effects on the environment must be prevented.

Climate change is a very serious problem: it negatively affects the environment, water resources and the economy. The situation is aggravated by demographic growth and by the intensive development of the economy.

Turkmenistan and other Central Asian countries have sufficient experience in the analysis and resolution of water problems on the basis of mutual interests and in accordance with bilateral and multilateral agreements. Turkmenistan actively participates in the work of IFAS.

The President of Turkmenistan in his address to the 73th General Assembly of the United Nations called for close cooperation between the international community and the countries of the region in the solution of the complex problem of saving the Aral Sea. The region needs the assistance of the UN in developing new approaches to this problem.

Turkmenistan believes that access to clean drinking water is a fundamental human right. Water cooperation must follow three principles: 1) it must be based on universally accepted principles of international law 2) take into account the interests of every Central Asian country and 3) be implemented with support of the international community, first of all the United Nations.

Water diplomacy is a key activity of the foreign policy of Turkmenistan: it opens up the possibility for regular dialogue that facilitates the solution of all problems related to the rational use of this important resource through cooperation.

Ms. Caroline Milow, Programme Manager of GiZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) in her keynote address stated: the overall objectives of the **Green Central Asia project** of the Federal Foreign Office of Germany are conflict prevention and strengthened cross-border cooperation on climate impacts in Central Asia and Afghanistan. It is a German contribution to the Central Asia Strategy of the European Union adopted in 2019.

The intended results include improved transboundary dialogue on climate, environment and security in Central Asia through scientifically based exchange of information at different levels, as well as awareness raising. The project is expected to strengthen trust between the five Central Asian countries and Afghanistan and their international partners. The project is supported by the Potsdam Institute for

Climate Impact Research, the German Research Center for Geosciences, the Martin Luther University Halle-Wittenberg and the German-Kazakh University.

According to recent data, water stress levels in Central Asia reach an alarming 87.9%. Cooperation on economy, energy and water is taking place in several regional frameworks, including IFAS, SCO, OSCE, EU, CIS, EAEU, the WTO as well as bilateral and multilateral agreements. Examples of bilateral legal arrangements are the agreement between the Governments of the Republic of Kazakhstan and the Kyrgyz Republic on the use of interstate water facilities on the Chu and Talas Rivers, the Governments of the Republic of Uzbekistan and the Kyrgyz Republic on the joint use of the Orto-Tokoy (Kasansay) Reservoir, the Governments of the Republic of Uzbekistan and the Republic of Tajikistan on cooperation to ensure the functioning of the Farhad Dam, as well as agreements on water management issues and mutual supply of electricity.

There is a significant potential to expand further such cooperation. **The joint statement signed by the Presidents of Uzbekistan and Tajikistan in March 2018 in Dushanbe mentions Uzbekistan's offer to participate in the construction of the Rogun HPS. Uzbekistan and Kyrgyzstan signed an agreement on joint implementation of the investment project "Construction of Kambarata HPS-1". Cooperation could include nexus (energy, water, food security) projects and agreements on water allocation and energy exchange, as well as application of IWRM.**

Green and climate financing sources available for Central Asia include the Green Climate Fund and the International climate initiative. The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety also offers assistance in this field. Strengthened regional cooperation would facilitate IWRM, energy exchange, help climate change mitigation and adaptation and boost economic development. Good governance is an important precondition of progress in these areas.

Mr. Johannes Stenbaek Madsen, Head of Cooperation, EU Delegation in Kazakhstan in his keynote address reminded participants that trillions of dollars are being invested in post-covid, green recovery. This money is borrowed from future generations, it must be wisely used. 10% of the budget of the External Action Service of the EU is spent on grants to partners. **The EU is spending Euro 750 billion on green recovery (Green Deal). Water is key in the Central Asia Strategy of the EU.** There are a number of projects being implemented or planned in this area.

Dr. Iskandar Abdullaev, Deputy Director 2 of the CAREC Institute announced the launching of the CAREC Water Pillar. Shaped by a recent scoping study commissioned by ADB, the Water Pillar intends to promote dialogue on water

management issues, including climate change knowledge, technical assistance and preparation of investment projects. Economic Water Productivity will be used as a performance metric and assessment tool for irrigation and water demand management. The Pillar will also include legal and institutional interventions.

The CAREC Institute climate vulnerability analysis reveals that adaptation capacity is restrained by economic performance and lack of effective policies. **A minimum of USD 20 - 25 billion annually is required to upgrade water infrastructure in Central Asia. The dominating role of governments obstructs private sector financing. Decaying infrastructure and low water productivity due to inefficiencies in delivery and distribution are among the main problems.**

A good understanding of investors' expectations, behaviour and motives are preconditions of private investment. The level of commercial appeal of infrastructure projects to private investors is a key element for successful Public-private Partnerships. CAREC proposes an approach that can help to leverage possible synergies for decreasing costs, assessing trade-offs, demand-side interventions and decentralized services to ensure sustainability of infrastructure.

At the regional level, **priority should be given to renew the discussion on setting up a water and energy consortium for the Syrdarya and Amudarya. Joint operation and maintenance of transboundary infrastructure and benefit-sharing should be the focus areas of the project.**

Water, Sanitation and Hygiene (WASH) studies reveal differing policies, lower level of access in rural areas and dilapidated infrastructure, constructed in Soviet times.

Focus areas for future research and capacity building are water reforms, water sector financing, water infrastructure and water sector research.

Dr. Barbara Janusz-Pawletta, Vice-Rector of the German-Kazakh University reminded participants of **SDG 6.5 “By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.”** Practically all SDG-s are linked, one way or another, to water. According to the Global Water Partnership “IWRM is a process which promotes the coordinated development and management of water, land and related resources in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment”.

Reporting on SDG 6.5.1. (implementation of IWRM) gives a relatively low score to Central Asian countries, slightly above 40. When planning the way forward, experts and policy makers should take into account that 1) Regional integration beyond water influences riparian states' readiness to cooperate on water issues 2) The

importance of strengthening interstate economic integration formats among Central Asian countries beyond water 3) There is a need to improve existing legal and institutional framework to implement IWRM.

Dr. Dinara Ziganshina, Deputy Director of SIC ICWC spoke about the need to strengthen the work of ICWC to facilitate the implementation of IWRM. She emphasized that **despite existing problems, BWO-s had played an important role in finding cooperative solutions to recent problems in the management of transboundary water resources.** The mandate of ICWC includes the coordination of water resources management at the regional level “taking into account the interests of all economic sectors and facilitating the complex and rational use of water resources.” Dr. Ziganshina gave a short review of the legal basis of the work of ICWC, comparing it with the mandates of other river basin commissions. IWRM requires horizontal and vertical coordination and participation of all water users. Coordination must cover surface and groundwater and return flows and aim to reduce non-productive losses. She presented **a number of concrete proposals on how to improve the work of ICWC.** She reminded participants that IWRM is not an objective in itself: it is a tool to improve the efficiency of water use. **The reform of regional cooperation frameworks must be a step-by-step process** as the sovereignty of states must be respected. Only mutually acceptable solutions would help the process. Instead of waiting for long-term agreements, small steps must be taken right now to improve the implementation of existing agreements.

Mr. Marton Krasznai, Scientific Director of the Center for Central Asia Research of Corvinus University, Budapest underlined that the webinars organized in the framework of the Programme "Water as a driver of sustainable recovery" are following a global trend of a declining predominance of engineering approaches. There is increasing focus on the economic and financial sustainability of the water sector, in order to enhance and sustain its contribution to socioeconomic development. The first two webinars identified **30 years of underinvestment in infrastructure as the biggest problem of the sector.** Needs are huge: according to recent estimates by the CAREC Institute a minimum annual investment of 20-25 billion USD is needed. These **amounts clearly exceed the capacity of the economies of individual countries.** Climate change is not only putting increasing pressure on the sector but also offers opportunities in the form of rapidly increasing availability of green and climate financing. The Leaders Summit on Climate on 22-23 April is a strong signal of increasing willingness to invest in green development worldwide. One of the objectives of the summit is to mobilize public and private sector finance and help vulnerable countries to cope with climate impacts. Legislation and policies in developed countries bring climate risks and resilience into the heart of financial and business decision making.

Central Asia has a better chance of attracting climate financing by developing a smart regional investment concept. It could identify regional investment

opportunities when they are superior in efficiency to national solutions. Pooling capabilities and resources would ensure better positions vis a vis investors and help shed risks. Displaying a strong commitment to regional cooperation would help increase long-term stability and develop a favourable regional investment climate. This is especially important in the case of investment in water infrastructure with very long break-even periods. An important precondition of forming regional consortia for investment in water infrastructure and its joint operation and maintenance is good governance, including increased transparency and accountability.

Aral Sea Basin Programmes, as a rule, have a time horizon of 3-4 years. **A smart regional investment concept** could cover a much longer period, till 2050. It **would serve as a road map for negotiations on concrete investment projects, help optimal coordination and sequencing of investments to avoid situations of extreme water stress in the future.** Participation of water, energy, environmental, economic and financial experts of international development partners would ensure a balanced and professional outcome.

In his concluding statement, Ambassador Guy Bonvin, Special Envoy for Water in Central Asia reminded that the concrete translation of the cooperation will is **to invest as much as necessary to secure mid-term and long term water and economic resilience, as little as necessary to finance** only productive, **systemic** and resilient **assets** in respect of sustainable natural resource management and climate change, as well as to reduce the exposure of the water sector, the economy and the stability of the region to the effects of climate change

It was also reminded that the water Sustainable Development Goals (#6), which includes the transboundary water management (#6.5), is essential for the achievement of all SDG-s. The close interdependence of the water sector with other key sectors of Central Asian economies means that solutions for water management lay not only within, but also beyond the sector itself. IWRM is a tool for economic integration. The 3 webinars organized to date in the framework of the Programme "Water as a driver of sustainable recovery" confirmed **the importance to #valuewater, the motto of the 2021 World Water day, which is not only the task and responsibility of the engineers but the whole team of stakeholders.**