Summary of the webinar

“Post-covid-19 recovery strategies: putting the water sector of Central Asia on an economically and financially sustainable path: lessons, problems, opportunities”

organized on 3 November 2020 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”, Supported by Blue Peace of Central Asia (BPCA) of SDC, the Stockholm International Water Institute (SIWI), the Center for Central Asia Research of Corvinus University Budapest (CUB) and the Central Asian Regional Environmental Center (CAREC)

According to the introductory remarks, the webinar was organized in response to **calls by Central Asian representatives** at the Stockholm World Water Week in 2019 and at a workshop organized on the margins of the Budapest Water Summit 2019 **for a “more focused, structured and result-oriented process” to achieve rational and efficient water resources management in the Aral Sea Basin**. BPCA, SIWI, CAREC and CUB joined forces to design and support such a process.

The deep economic crisis caused by **the pandemic gives special urgency to this call.** There is a need to implement policies that strengthen the potential of the water sector to contribute to sustainable economic recovery and put it on a path towards financial and economic sustainability. Accumulated problems need to be solved in a profoundly changed economic environment. There was broad agreement that water is a strategic resource: it is at the heart of Central Asian economies and societies, indispensable for sustainable economic development, stability and recovery from the current COVID crisis.

Several speakers warned that the crisis had highlighted existing deficiencies and weaknesses of the sector: it has never achieved economic and financial sustainability during the post-independence transition process.

According to studies by a regional research institute, in the Soviet period a stable economic basis guaranteed the sustainability of the Central Asian water sector. After 1991 there was a dramatic reduction of the GDP of these countries: production in all sectors of the economy declined. Growth picked up after 1997 and Central Asian countries developed new economic links. Despite the rapid economic development, the water sector has never regained economic sustainability. At present only 40 - 60% of the real investment needs of the sector are covered, overwhelmingly from the state budget. According to a World Bank study, if the present rate of investment in

infrastructure is maintained, the irrigation system of Central Asia will completely collapse in about 40 years. Amortisation funds were liquidated in 2010, further aggravating the situation. Water fees are insufficient to cover costs and are not collected systematically. As a result, neither the water management organizations, nor the water users are interested in water saving.

The number of trained staff in irrigated agriculture has been reduced to one fifth of the 1991 level. Research and development has been especially hard hit: the budget for R and D is one tenth of the 1991 level. Central Asian countries spend about half as much on R and D out of the overall resources available for the water sector as the countries of Sub-Saharan Africa. As a result, they lack capacity for project management, quality control and have limited capacity to develop new solutions and technologies. Representatives of several countries complained that today the sector lacks young experts and resources for R and D.

Studies by another research institute confirm the above assessment: due to delayed investment, the water infrastructure is dilapidated. Financing of O and M is inadequate and shrinking, Central Asia would need USD 33 - 38 billion (6-8% of its GDP!) annually to rehabilitate infrastructure and build new one.

Afghanistan is linked to Central Asian countries both as an upstream country of the Amudarya and as an electricity importer and transit country of energy corridors, like TAPI and CASA 1000. Regional cooperation - including joint management of shared water resources - is a cornerstone of regional stability and prosperity. The initiative by BPCA, SIWI, CAREC and CUB is a welcome contribution to strengthening regional cooperation. Climate change aggravates an already fragile situation: it may contribute to social upheaval and even violent conflict. The drought of recent years affected the livelihoods of millions of people, in some cases irreversibly. The compound effect of climate change and extreme poverty caused by the pandemic pose serious social and security challenges. Better management of water resources at the national and regional level is at the core of adaptation strategies as it would improve the livelihood of people in the whole Aral Sea basin through increased food production, job creation and improvement of public health through the provision of clean drinking water. The Afghan economy was hard hit by the pandemic. For sustainable economic recovery Afghanistan will need to use the water resources of trans-boundary rivers in an equitable and reasonable manner. Electricity generation by hydropower stations will reduce the dependence of the country on imports. At present the lack of finances is hindering the sector in achieving its full potential. Joint scientific research to assess the socio-economic impact of the pandemic, the role of better water resources management in the post-covid recovery and the importance of better governance is very much needed. The results of such research need to be translated into policies. Regional policies should be developed and implemented collectively. The capacity of national institutions needs to be enhanced too.

The example of Kyrgyzstan demonstrates that the success of efforts to improve the management of water resources strongly depends on the availability of resources. The collapse of the Soviet Union led to the under-financing of water infrastructure, undermining the capacity of Central Asian countries to ensure stable water supply at the national and inter-state levels. The country lacks the resources necessary to protect the aquifers of trans-boundary rivers. Due to insufficient investment the water infrastructure today is dilapidated, Water fees introduced in 1995 led to a significant (20%) reduction of water use. After 1991 a great number of small cooperatives and private plots were created. Responsibility for the maintenance of inter-plot and larger canals was laid on water councils that lacked sufficient budget and expertise. Later on water user associations were established, in fact assuming the role of Soviet time kolkhoz and sovhoz. Due to poor maintenance the capacity of irrigation canals has been reduced by 15 - 25%, which resulted in a decrease of cultivated area. Despite efforts to introduce IWRM, till today the management of water resources remains fragmented among several ministries and agencies. The main reason is an incomplete transition process: structural reforms have not been fully implemented. As a step in the right direction the Water Code established a unified state agency for water resources. Regrettably, an effective mechanism for inter-state cooperation lacks. There are some good examples of agreements under which downstream countries contribute to the costs of provision of water services.

The close relationship between the overall economic policies of a country and the effective implementation of comprehensive strategies for the development of the water sector is well demonstrated by the example of Tajikistan. The country depends on hydropower for 95% of electricity production. Provision of clean drinking water is a priority as well as irrigated agriculture, providing 80% of agricultural production, 20% of the GDP and 16% of total exports. Hydroelectricity export constitutes 6% of the total. Water related disasters at times cause destruction amounting to 8-9% of the GDP. The water sector faces huge financial and economic challenges: 60% of investment in the water sector is covered by loans or by grants. This results in huge transaction costs and the country needs to meet a broad variety of conditionality. To achieve water-related SDG-s by 2030 investment of USD 112 billion would be needed. Provision of clean drinking water to the population alone would require the investment of USD 105 M annually, double the actual level. In 1990 the country invested USD 160 M annually in irrigated agriculture. At present it invests less than USD 10 M - that is 0.4% of the GDP. (For comparison: in the 1980-s 12.4% of the budget of the country was used for irrigation and melioration.) Financing by the state budget is clearly insufficient, especially in case of infrastructure not connected with hydropower. In 2018 less than USD 5 M was provided to support irrigated agriculture and amelioration: this sum was mostly used to pay wages and taxes. Private investment in the sector is insignificant with the exception of hydropower. Service providers are not investing in infrastructure, as they are heavily indebted. The financial situation of the agency for amelioration and irrigation is very difficult as fees don’t cover costs and government subsidies are insufficient. As a result, water

infrastructure has suffered serious deterioration during the last decades. The national water strategy covering the period till 2030 intends to increase government and private investment in the water sector. It foresees a 15% increase annually in the sector. Improvement of the legal basis and regulatory framework is also planned, covering interrelated sectors - communal use, agriculture, energy, healthcare and the environment. It also intends to improve the investment climate. It is proposed to make it obligatory to undertake a technical and financial feasibility study for any large or medium-sized investment. Attracting private investors in the development of communal water supply, stimulating internal and foreign direct investment, establishing water trust funds to finance communal water supply, increasing investment in irrigated agriculture by 15% annually, improving payment systems and the collection of fees and establishing a solid legal basis for investment in the water sector are priority objectives of the strategy.

The example of Kazakhstan convincingly demonstrates the relationship between the level of economic development of a country (as measured by per capita GDP) and the ability of a government to invest in and support M and O costs of the water sector. At the same time, higher budgetary support alone is insufficient: the water sector of the country depends to a significant degree on the water resources management policy of neighboring countries. Agriculture is a priority area of economic policy of the government as almost half of the population depends on income from the agro-industrial complex. Out of 5894 water management installations 230 are in private hands. Most of the water infrastructure was built in the Soviet period: 60-80% of irrigation canals, 40% of hydraulic installations and 75% of drainage systems. The main reason for the high losses during storage and transport of water is the dilapidated state of water infrastructure. Between 2002 and 2020 the government spent USD 230 M on the maintenance and USD 300 M on the modernization and reconstruction of water infrastructure. IFI-s were actively involved in financing the water sector: the World Bank, the Islamic Development Bank and the EBRD have provided USD 370 million that made possible the modernization of irrigation systems on 240 thousand hectares. Reform of the water sector aims to improve the social, economic situation of the population as well as the environment. Objectives of the programme of water resources management till 2030 are the preservation of water resources at an economically and environmentally optimal level, spreading the efficient and rational use of water resources, including through strengthened international cooperation, monitoring, reconstruction of irrigation systems, building new reservoirs, supporting scientific research and improving legislation.

The broad reform programme implemented in recent years in Uzbekistan convincingly demonstrates that systemic reforms create a favourable economic environment for efforts to improve water resources management. In Uzbekistan there are 70 reservoirs and 1600 pumping stations. The average age of the infrastructure is 50 - 60 or more years: its technical condition has continuously

deteriorated in recent decades. 45% of irrigated land is affected by various degrees of salinization. As an important step of the systemic reforms of 2017-2021 an independent Ministry of Water Resources was established. Dividing the management of agriculture and water resources proved to be a step in the right direction: it provides for more transparency and a less complex management structure. 77.4 thousand hectares have been equipped with drip irrigation, water saving technologies have been introduced on 7% of cultivated land. Still today 10.6 thousand cubic meter of water is used for every hectare of irrigated land. Fiscal policies of the Government support the introduction of water saving technologies: there is a 5 year tax break for land where drop irrigation has been installed. From 2022 the costs of electricity for drop irrigation will be fully covered by the state. The concept of development of the water economy of Uzbekistan for the period 2020 - 2030 foresees the adoption of a Water Code in 2023. Uzbekistan plans to achieve the SDG-s on water by 2030. Thanks to the programme “Smart Water”, water use will be measured and controlled on 100% of the irrigated area. 100 key objects of water management will be automated and the use of agricultural land with high salinity will be reduced. By 2030 Uzbekistan plans to introduce water saving technologies on 2 M hectares of land, including drop irrigation on 600 thousand hectares. At present, Uzbekistan uses only 30% of its hydropower potential. Thanks to the ongoing modernization programme, electricity production by HPS will increase by 2.5 M kWh, reaching 8.5 M kWh. The effects of climate change and demographic growth has reduced per capita water supply to half (from 3000 m3 to 1500 m3 per person) in the last 15 years. Notwithstanding recent progress, problems remain: strengthened regional cooperation and support by the international community are essential to meet present and future challenges.

It was pointed out that well-targeted international assistance could have played a more important role in the development of the water sector in Central Asia. Although there is a trend of decreased international funding there may be some potential to broaden financing using climate funds. The effectiveness of international assistance has been reduced by the lack of coordination among international development partners, a short-term planning horizon and limited willingness of Central Asian countries to implement reforms. At the same time, some of the reforms proposed by international partners may not have corresponded to the social and economic situation of these countries. There is a need to define, discuss and decide on rational economic and political reforms as a basis for future, more efficient international support. What is particularly important is the establishment of a common platform by the countries in Central Asia for the development of regional cooperation.

A sector under multiple pressures

Several speakers pointed to the multiple pressures, first of all climate change, that the water sector of Central Asia faces. According to the World Economic Forum water crises and climate action failure are among the most likely and dramatic global

risks. Water stress threatens to become a constraint for future growth in Central Asia: the contribution of a cubic meter of freshwater withdrawal to the GDP is among the lowest in the world. The region is not immune to a new Aral Sea disaster.

Solutions needed: how to resolve accumulated problems, achieve sustainable recovery, accelerate climate action - and all these in a profoundly changed economic environment?

Most of the speakers were focusing on solutions: they outlined possible elements for a strategy that can make water the driver of sustainable economic recovery after covid-19 and put the water sector on a path towards economic and financial sustainability.

The Blue Peace Central Asia initiative, through leadership, promotion of IWRM, emphasis on the value of water and diplomacy intends to make water a key driver for sustainable socio-economic development and to reduce risks of water-related disasters. It endeavours to build trust through sharing water data. It involves youth to bring fresh ideas to the water dialogue and train a new generation of experts. Water value chain policies need to factor in both opportunities and risks: the importance of the water sector for economic development and social stability, the impact of climate change and natural risks. Solutions require a common understanding in the region on further development, increasing water efficiency, reduction of water demand, improved flow and storage management, multipurpose infrastructure, maximizing the efficiency of investment and implementing IWRM principles. Scientific research can contribute to solutions: a vibrant regional community of practice, advising the countries' leadership, outlining concrete socio-economic policies and presenting recommendations is the main objective of the programme which envisages knowledge production and exchange for two years. Central Asian countries and their partners need to ***generate and share knowledge on socio-economic challenges*** of the water value chain – and to this end, they obviously need expertise.

According to the CAREC Institute access to water is a human right: a key precondition of individual, household and economic development. Access to water, food and sanitation are the most important development aspects in Central Asia. Therefore attention to water must be in the center of efficient responses to the covid-19 outbreak. Central Asia boasts a long history of pragmatic water cooperation. Regional cooperation frameworks handled well the transition process of the post-Soviet period, without any serious conflict. IWRM, green development, sustainability concepts helped to shape national reforms in Central Asian states. A major challenge for regional environmental and water cooperation is how to synergize national interests and craft regional priorities, how to harmonize regional water systems with national water policies and interests? The political environment is improving in the region: there is less talk about conflict and more about cooperation. Water cooperation increased in the low water years of 2018-2019: energy trade grew

and there was intensive coordination in water sharing. Thanks to reduction of cotton production and spread of water saving technologies water demand declined in Uzbekistan. Governance and management of the water sector have been reformed. Financing is ensured through budgetary support, fees and private investment; at the same time water infrastructure maintenance and development has been under-financed. Climate change adaptation is a strategic issue: regional approach is more efficient than scattered, country-level responses. Although environmental systems are integrated, lessons of the Aral Sea disaster have not been internalized: repetition of the tragedy cannot be excluded. Ecological needs are ignored in water resources management. Urban and rural water supply and sanitation services differ significantly. Drinking water programmes are under way in every country but sanitation improvement programmes are rare. Data on water quality is not well structured.

Questions that need to be answered: how to set up sustainable water partnerships, what is the optimal role for the private sector, how to generate political support for environmental priorities and how to set up joint management and decision making at the regional level?

The European Union is committed to supporting sustainable development, resilience and prosperity in Central Asia - key priorities of the new Strategy on Central Asia. The covid-19 crisis confirms the validity of this strategy: it is absorbing much needed capacities and financial resources. The governments and their international partners cannot wait until the health crisis is over with developing strategies for sustainable post-covid recovery. The crisis revealed deficiencies and shortcomings: they need to be addressed. The climate change impact is growing bigger each passing year. Both mitigation and adaptation measures need to be adopted at the regional level. The crisis offers an opportunity to build back better. Recovery efforts should be consistent with climate action, lowering emissions, accelerating transition to clean energy and aiming for more efficient use of water and irrigation technologies. Investments should not undermine the objectives of the Paris Agreement and the shared objectives of climate neutrality and SDG-s. Global warming is a global problem that calls for global responses and at the same time local and regional solutions. The EU is the largest provider of public climate finance. Developed countries pledged to mobilize USD 100 billion per year through 2025. The Green Deal of the European Union allocates more than 750 million Euro to the post Covid-19 recovery package. An enabling political and technical environment for multi-sectoral investment to increase water, energy and food security is key to mitigation of and adaptation to climate change. Such investment will make countries' economic and trade activities more sustainable. The EU-Central Asia ministerial meeting is to discuss priorities for the 2021-2027 financial framework. The Green Deal will focus on the efficient use of resources by moving to a clean, circular economy. Central Asia needs to make full use of the Working Group on Environment and Climate Change and WECOOP, as well as the Central Asia Nexus Dialogue Project fostering

Water, Energy and Food Security Regional Dialogue and Multi-Sector investment in Central Asia. The PBCA, CUB, SIWI and CAREC programme will strengthen national ownership and regional leadership in efforts to make the water sector economically viable and financially sustainable.

According to the CAREC Institute digitization offers new opportunities to the water sector: the Watermed 4.0 project is to develop and apply an integrated decision support system based on the Internet of Things. Non-equity mode of international governance, like contract farming, is spreading to all sectors of the economy. Covid-19 is further muting foreign direct investment which may be flattening off in the CAREC region. The countries of the region need to make decisive efforts not to allow a dramatic widening of the knowledge divide. CAREC countries need to speed up their own greening and cope with the effects of international decarbonization. A whole set of greening policies is needed, combined with upgraded social policies to cope with the consequences of change.

The World Bank supports public-private-civil society collaboration and the development of adaptive strategies to restart the economy, promote investment and create jobs. While there are vast infrastructure needs, budgets for O and M are inconsistent and insufficient, and there is a need for more innovation and technology adoption. Building ownership and shared responsibility is key for achieving resource sustainability and use efficiency. The more active engagement of the private sector in water can boost innovation, facilitate reform and ease capital constraints. Central Asia faces serious constraints in mobilising private investment, including high risk of service disruption, uncertainties of landholding patterns, limited access to credit, higher costs of production than revenue, commodity prices variability, problems with access to markets and weak supply chains. The World Bank provides assistance to easier access to credit: IBRD guarantees can help mobilize capital and enable the water for crops value chain. World Bank financed PPP-s are successful in the water and sanitation sector.

The Programme “Water as a driver of sustainable recovery: economic, institutional and strategic aspects of water resources management in Central Asia” will focus on the problems identified during the webinar:

1) Structural and institutional problems of economies that hinder the rational and efficient management of water resources. Reforms focusing on these weaknesses would enable the water sector to achieve its full potential.

2) Poorly maintained and dilapidated water infrastructure due to thirty years of under-investment. The present state of the infrastructure makes it very difficult, if not impossible, to manage water resources in an efficient, economically sustainable manner.

3) While there is political will to resolve disputes and strengthen regional

cooperation, it has not yet been effectively translated into economically sustainable solutions and bankable projects.

4) There is an urgent need to tap more effectively into resources offered by climate funds and green development programmes. Climate change mitigation and adaptation and green development can be more efficient if it is done on a regional scale.

Parallel progress in all four areas is needed to achieve economic and financial sustainability of the water sector. Coordinated action in these four areas would lead to synergies and generate a virtuous circle.

Central Asian countries would need significant additional resources to achieve a quick recovery and properly address the growing compound challenges of climate change, environmental degradation, demographic growth and the heritage of 30 years of under-investment in water infrastructure. At the same time some countries need to manage the risks created by high indebtedness, high inflation and persistent structural and institutional weakness of their economies. Policies that worked in the aftermath of recent economic crises in 2008 and 2016 may have to be adapted to new economic realities to make the recovery sustainable. Innovative, regional solutions are needed, so no country is left behind.

Well targeted economic stimulus could become the first step towards making the water sector the driver of long-term, inclusive, green development. Supply-side policies focusing on the water sector would create jobs, strengthen food security, help climate change adaptation, guarantee stable export earnings and improve the health of the population thanks to the provision of clean drinking water. Covid highlighted the close link between health and economy.

Agreement on a long-term regional action plan to move towards a green, sustainable development path would convince development partners and investors alike that the region is able to significantly increase the productivity of its water sector. The development of integrated water resources management at the regional level could accelerate growth in every country through the optimal use of factors of production - water, land, natural resources, labour, capital, entrepreneurship - and the full development of a regional market, including a capital market. On the basis of a comprehensive economic framework for regional cooperation on water, guidelines for a “smart regional investment plan” could be developed that would leverage concessional financing by climate and green development funds to mobilize additional public and private finance for the water sector.

In the 21st century, water is arguably the most important strategic resource of Central Asia. The decision of a country on the development and management of its water resources might affect the strategic interests of its neighbors. Replacing resource competition with cooperation would allow Central Asian countries to jointly formulate and promote their strategic interests. Multi-vector foreign policy - that is balanced, good relations with all neighbors and partners - could be underpinned by a smart regional investment plan, facilitating balanced, low-risk investment into strategically important regional infrastructure by all regional countries and partners.

Summary: What is at stake and why do we need to act

The crisis offers an opportunity for building back better. But to do so, Central Asia needs new solutions. Copying from the last crisis won't do the job. And the recovery efforts need to be consistent with climate action. There is no contradiction between growth and climate action.

Where are the challenges?

We are not talking about water, but about a multi-sectoral challenge around water: we need to think much broader than just water because the solution to this challenge cannot be found within the water sector alone.

Lack of finance on the national level (not covering amortization or not even running costs) is linked to too low/lack of tariffs/fees/subsidies, which in turn does not provide any incentive to save water. Lack of (additional) financing for transboundary cooperation needs to be resolved in order to develop a ***mechanism to fund basin level costs*** (shared costs for multi-functional interstate infrastructure).

Lack of experts has become a major problem: there has been a significant decrease of the number of specialists, ***scientific capacities and research*** due to underfunded R&D.

What do we need and how can we act?

We need to establish an ***enabling political and technical environment for a systemic management of water resources*** and for ***multi-sectoral investment to increase water, energy and food security*** as key for CCM and CCA.

We need a ***community of practice, and a coalition of the willing***. Different international partners are ready to help, but ***the lead must be with the countries of Central Asia***. Priorities need to be aligned between countries and donors, based on an ***agreed multi-sector and cross sector long-term vision*** (into which donors can buy in with and which can be used for planning for improved systemic water resources management): a ***comprehensive economic concept of regional cooperation on water incl. guidelines for a "smart regional investment plan" in the water sector should be developed.***

An important point is an increased ***willingness and commitment of Central Asian countries for policy reforms*** (facilitating progress towards economic sustainability in the water sector) and ***for better regional cooperation*** (incl. better coordination between international stakeholders).

We need the ***right institutional setup for effective cooperation*** – some elements are there, e.g. the idea of the Water-energy consortium, the CA expert platform on water security, sustainable development and future studies, institutions like IFAS and CAREC – thus: how can they further be developed and operationalized?

Finally, we need ***an inclusive process***: leave no one behind – no country (e.g. include AFG, respect the interests of all countries), no actor (role of women key), no sector (environment): we need to move towards a modality of benefit sharing, away from resource competition.

Further ingredients:

New funding possibilities. Private sector was prominently mentioned, as public financing will not be sufficient. We heard about various examples (from different places in the world and based on different methodologies) and there are certainly more innovative approaches available including a new instruments developed under the Blue Peace initiative, the Blue Peace Bond).

Ideas for green recovery (eg from EU) and ***new disruptive technologies incl. digitalization*** (and in particular on water and climate data and information – we cannot manage what we do not know: so this could be a rather low-threshold entry point not least to foster common understanding and trust)

<u>Annex:</u> the next steps

The organizers will, within the next two weeks, come back to partners with more details on the next steps, including three more webinars. It is hoped that a “real” workshop can be organized in the second quarter of 2021. It is possible that it will be followed by events during the Stockholm World Water Week and the Budapest Sustainable Development Summit in the fall of 2021.

This dialogue will be supported by research by Central Asian experts, coordinated by CUB. Terms of Reference for research papers will be posted on the BPCA and CUB websites in the near future. The programme is going to develop recommendations for high-level decision makers in the form of policy papers or by involving experts who advise them.