

МРНТИ:  
06.61.33  
11.25.40

# ВОДА КАК ДВИЖУЩАЯ СИЛА УСТОЙЧИВОГО ВОССТАНОВЛЕНИЯ: ДОРОЖНАЯ КАРТА ДЛЯ ЦЕНТРАЛЬНОЙ АЗИИ

## Часть II.

Переход от конкуренции за ресурсы к стратегическому сотрудничеству: разработка экономической структуры для совместного управления региональными водными ресурсами

## Мартон Краснай

научный директор Центра исследований Центральной Азии Университета Корвинуса, Будапешт,  
e-mail: [marton.krasznai@uni-corvinus.hu](mailto:marton.krasznai@uni-corvinus.hu)

<https://doi.org/10.52536/2415-8216.2021-3.07>

**Аннотация.** В данной статье представлены результаты третьего и четвёртого вебинаров, состоявшихся в рамках программы «Вода как движущая сила устойчивого восстановления: экономические, институциональные и стратегические аспекты управления водными ресурсами в Центральной Азии». На третьем вебинаре были определены экономические основы регионального сотрудничества по воде, а четвёртый вебинар был посвящён обсуждению стратегических аспектов управления водными ресурсами.

**Ключевые слова:** водный сектор, изменение климата, COVID-19, восстановление, концепция смарт-инвестирования, региональное сотрудничество, стратегическое сотрудничество по воде, борьба за ресурсы

## СУ ТҰРАҚТЫ ДАМУ ҚАЛПЫНА КЕЛТІРУ КҮШ РЕТІНДЕ: ОРТА АЗИЯҒА АРНАЛҒАН ЖОЛ КАРТАСЫ

**Пбөлім.** Ресурстар үшін бәсекелестіктен стратегиялық ынтымақтастыққа көшу: аймақтық су ресурстарын бірлесіп басқарудың экономикалық негізін әзірлеу

## Мартон Краснай

Будапешт, Корвинус Университеті, Орта Азияны зерттеу орталығының ғылыми директоры, электрондық пошта: [marton.krasznai@uni-corvinus.hu](mailto:marton.krasznai@uni-corvinus.hu)

**Аңдатпа.** Бұл мақалада «Су тұрақты қалпына келтірудің қозғаушы күші ретінде: Орталық Азиядағы су ресурстарын басқарудың экономикалық, институционалдық және стратегиялық аспектілері» бағдарламасы бойынша өткізілген үшінші және төртінші вебинарлардың нәтижелері ұсынылған. Үшінші вебинарда су бойынша аймақтық ынтымақтастықтың экономикалық негіздері анықталды, ал төртінші вебинар су ресурстарын басқарудың стратегиялық аспектілерін талқылауға арналды.

**Түйін сөздер:** *су секторы, климаттың өзгеруі, COVID-19, қалпына келтіру, ақылды инвестициялық тұлжырымдама, аймақтық ынтымақтастық, су бойынша стратегиялық ынтымақтастық, ресурстар үшін күрес*

---

## WATER AS A DRIVER OF SUSTAINABLE RECOVERY: A ROAD MAP FOR CENTRAL ASIA

### Part II. Replacing resource competition with strategic cooperation: developing an economic framework for the joint management of regional water resources

#### Marton Krasznai

Scientific Director, Center for Central Asia Research of Corvinus University, Budapest, e-mail: [marton.krasznai@uni-corvinus.hu](mailto:marton.krasznai@uni-corvinus.hu)

**Abstract.** This paper presents the outcomes of the third and fourth webinars of the Programme “Water as a driver of sustainable recovery: economic, institutional and strategic aspects of water resources management in Central Asia”. The third webinar outlined the economic foundations for regional cooperation on water, while the fourth discussed strategic aspects of water resources management.

**Key words:** *water sector, climate change, covid-19, recovery, smart investment concept, regional cooperation, strategic cooperation on water, resource competition*

#### Introduction

***Three decades of poor regional cooperation on water left the region vulnerable to new challenges***

The countries of Central Asia have lost precious time and scarce resources 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 reservoirs, power stations, transmission lines and transport corridors. Even the crop patterns have been changed to achieve food self-sufficiency. For decades, the countries of the region waged an information war on building large hydrotechnic installations. Every party stuck to positions reflecting their own perceived interests.

In reality, it is impossible to achieve complete independence in all these areas. There are numerous infrastructure links connecting the countries of the region, including 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 regional infrastructure, facilitating economic development through regional cooperation and searching joint solutions to social problems, like unemployment. (1)

After the disbanding of the Central Asian Cooperation Organization in 2006, efforts to strengthen regional cooperation slowed down. Two contradictory tendencies have been manifest since the five countries gained independence: preservation of the common heritage and the pursuit of national interests. In order to facilitate the joint use of regional infrastructure, the countries established the International Fund for Saving the Aral Sea. At the same time, each state, for the entire period of its independent development, has sought to build its own self-sufficient energy system within its territory. Sometimes this was done to the detriment of common regional interests and often the neighbors tried to restrain each other's development

The 2005 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 annually.

The lion share of these losses stems from insufficient cooperation in the water and energy sectors. 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 fully functional today.

Climate change provides powerful arguments in favour of strengthening collaboration. In fact, 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 km<sup>3</sup> caused losses amounting in total to USD 578 million.

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 hinders private sector financing. Decaying infrastructure and low water productivity due to inefficiencies in delivery and distribution are among the main problems.

### **Methodology**

The review article is based and summarized discussions by Central Asia and international decision makers, experts and researchers during two last webinars held 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”.

### **Discussion and Results**

#### ***Climate change is a strategic game-changer in the water sector of Central Asia***

Climate change is in fact irreversible and the pandemic has aggravated its consequences. Countries had to divert resources from climate change adaptation to the fight against the pandemic. In Central Asia it is the water sector that is hit the hardest by climate change. 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. Water stress increases from year to year. If in the past low water years happened 1 or 2 times in a decade, now one out of every 2-3 year is a low water year as a result of less precipitation. The disappearance of glaciers, and floods and droughts caused by irregular weather patterns may precipitate a crisis of irrigated agriculture in Central Asia. According to recent data, water stress levels in Central Asia already today reach an alarming 87.9%.

Climate change is a game changer: it accelerates the negative trends, like decreasing water availability, and it directly impacts upon the socio-economic development of the region. What is not less important, it drives a fundamental change in the world economy: the decarbonization of production and consumption. This change is not linear, but exponential, and its effects are aggravated by another exponential change, the increasing cost of restoration, modernization and maintenance of the decaying regional water infrastructure.

These two concomitant processes constitute a strategic challenge for Central Asia, which depends on the export of primary commodities, first of all energy and ores, and has to cope with the consequences of thirty years of underinvestment in the water infrastructure. If the region is unable to stand up to these strategic challenges, it might face a brutal and irreversible collapse of services, which would threaten its stability and security.

### ***Emergence of high-level political will to strengthen regional cooperation***

In recent decades, cooperation of Central Asian countries on economic, energy and water issues has taken place in several regional frameworks, including IFAS, SCO, OSCE, CIS, EAEU, the WTO as well as bilateral and multilateral agreements. Multilateral cooperation was complemented by bilateral legal arrangements, like 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 supplies of electricity. (2)

Thanks to the emergence of high-level political will, there is a significant potential to expand further regional cooperation among Central Asian countries. 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". Such cooperation could easily expand to nexus (energy, water, food security) projects and agreements on water allocation and energy exchange, as well as application of IWRM.

Tajikistan and Uzbekistan decided to jointly build two HPS, with 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 Government 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.

During the visit of the President of the Kyrgyz Republic, Mr. Sadyr Japarov on March 11 and 12 2021 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 implementation of similar projects, serving the interests of two 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. (3)

Participants of the webinars presented several success stories of cooperation on water management in Central Asia, among them the activity of the International Teaching Center for Dam Safety in Taraz, Kazakhstan. The Training Center, founded in 2012 by IFAS with the support of the European Economic Commission hosts two training courses per year on the safety of water facilities for Central Asian specialists. (4)

Intra-regional development assistance in support of economic development, resilience and security can provide efficient support to strengthening regional cooperation on water, too. The newly established development agency of Kazakhstan, KazAID is ready to support activities aimed at improving regional water resources management in Central Asia.

### ***Support by the international development community to efforts to translate political will into concrete steps***

SDG 6.5 requires by 2030 the implementation of 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.

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) Strengthening interstate economic integration formats among Central Asian countries beyond water facilitates joint water resources management 3) There is a need to improve existing legal and institutional framework to implement IWRM. (5)

International development partners provide active support to efforts to strengthen regional cooperation on water. 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. (6)

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. (7)

Green and climate financing sources available for Central Asia include the Green Climate Fund and the International climate initiative. Countries are investing trillions of dollars 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. (8) There are a number of projects being implemented or planned in this area. Strengthening good governance is a key precondition of the success of these programmes.

### ***Short-term measures strengthen trust but are insufficient to effectively address long-term challenges***

All experts agree that there is a need to strengthen the work of ICWC to facilitate the implementation of IWRM. 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.” IWRM requires horizontal and vertical coordination and participation of all water users. Coordination must cover surface and groundwater as well as return flows, and aim to reduce non-productive losses. IWRM is not an objective in itself: it is a tool to improve the efficiency of water use. (9)

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. (10)

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 reservoir 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. (11)

### ***Relationships of trust are becoming the basis for the strengthening of regional cooperation***

As an important sign of increasing trust, Central Asian countries are making progress in sensitive areas of water resources management, like monitoring and improving water quality. There is encouraging progress in cooperation at the national and regional level 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 m<sup>3</sup>, which is three-four times less than in previous years. Areas protected under the Ramsar Convention experienced a water shortage of 500 million m<sup>3</sup>. 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. (12)

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 increases to 1.2 million ha. between 2019 and 2028. (13)

### ***The first step: elaborating an economic basis for regional cooperation on water***

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 need to strengthen regional cooperation on water in order to avoid a humanitarian crisis caused by food insecurity. This may require the elaboration of new guidelines for regional cooperation. 1) All countries, irrespective if they are upstream or downstream, need to approach regional cooperation on water in a responsible way. Attempts to use water for pressuring others will only aggravate the situation. 2) Central Asian countries need to leave behind the era of adopting declarative documents on water cooperation that don't contain any concrete obligation. There is a need to adopt concrete, long-term agreements based on mutual concessions. 3) There is a need to introduce modern monitoring technologies. International partners and water users within a country alike would have trust in the fair distribution of water only if they can rely on data obtained by modern monitoring technologies. 4) The role of water diplomacy needs to be strengthened. The population of every country must be convinced of the advantages of peaceful negotiations on the joint management of water resources and the need to reject any violent method. (14)

### ***From resource competition to strategic cooperation***

Since the adoption of the 1975 Helsinki Final Act, the OSCE participating States have recognized the link between water management, environmental cooperation, and peaceful inter-State relations as an integral part of the concept of comprehensive security. In the absence of good water governance, water might become a source of conflict, because the unsustainable use of water resources can upset ecological systems, threatening security and stability. At the same

time, well-governed water provides opportunities to build confidence and strengthen cooperation. The effects of climate change are a global challenge, one that forces all countries and regions to seek cooperative, sustainable ways to deal with their water resources. (15)

Kazakhstan launched the initiative to establish a water and energy consortium: the idea was discussed between 1997 and 2000 in the framework of the Interstate Commission of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, between 2001 and 2005 in the framework of the Central Asian Cooperation Organization and between 2006 and 2012 the Eurasian Economic Community. The two upstream countries have a significant potential for hydropower development and at the same time need huge investment and regional cooperation. When large projects, like Kambarata-1 and Rogun, are completed, their electricity export potential, among others through CASA-1000, will increase significantly. The pursuit of national interests should be rebalanced with participation in joint regional projects. The construction of large HPS and hydraulic structures in the upper reaches of transboundary rivers holds great potential for the development of the entire region. What is needed is the combination of international experience with local political will, so all legal, technological and environmental problems are properly addressed. The Advisory Council of Heads of State of Central Asia is in the position to chart new geopolitical directions for the region as an important link between major powers and economic blocks of Europe and Asia. The intentions of the five governments to resume the process of integration are serious. Due to the scale and complexity of this task, summit meetings are held only in a consultative format. However, in the modern world fraught with crises, the most constructive approach would be to develop coordinated positions by the five countries on internal, regional and global issues. (16)

Tajikistán sees its huge reserves of water resources and hydropower potential as a guarantee of its sustainable development. At the same time, it is fully aware of the need to cooperate with neighboring countries for the full development of this important resource to the benefit of the whole Central Asian region. The joint exploitation of this huge potential would facilitate the complex resolution of a whole range of socio-economic and ecological problems of the region. The development of the hydropower potential of Tajikistan is in the interest of every country of Central Asia, as it would provide the region with cheap and ecologically clean electricity. Tajikistan is signatory of every regional agreement on water, energy and the environment. Water should not be the source of conflict, it should become the catalyzer of cooperation, development and the source of prosperity. What is needed is a concept of regional development based on a balance of economic interests. The international decade “Water for sustainable development” offers a good background for this work. (17)

Participants of the fourth webinar gave positive consideration to the idea of launching a discussion on how to jointly manage the strategic resource

called water. The region needs a long-term approach, a thorough analysis of the economic and geopolitical implications of on-going processes, helping decision-makers arrive at a shared strategic vision. (18)

A discussion on the strategic aspects of water resources management in Central Asia is in fact addressing a global problem. The questions to be discussed are part of a global picture that is a cause for serious concern. Today, about two billion people lack access to safe drinking water and most of them live in fragile, often violent regions of the world. All expert assessments agree that by mid-century close to four billion people – about 40 percent of world's population - will live in water-stressed basins. These and other facts, figures and projections - by now widely recognized - have led the Global High Level Panel on Water and Peace, to give the title “A Matter of Survival” to its report. Water is often part of conflict, sometimes violent conflict. It can be a driver of violent conflict albeit generally not a single or the main cause of conflict. Persistent or growing competition over water and unresolved issues of water management create sensitive situations where violence can start unexpectedly. (19)

Water is a problem but at the same time, it is also a reason for cooperation. It is an instrument that serves needed economic and social stability and peace through transboundary water cooperation. The concept of integrated water resource management no longer relates to national systems only. It extends to international levels – sub-regional, regional and global. The problem of water is a problem of governance, and most of governance is concentrated at the national and local levels. Governance means coordination and trade-offs, as well willingness to cooperate – a difficult task amid the growing competition among the uses of water – for human consumption, food production and irrigation, mining and manufacturing, energy production and environmental services. Policies in each of them are often designed without a full appreciation of the other sectors. Therefore, what is needed is the “nexus approach”, of inter sectoral water management at the local, national and regional levels. Central Asia has important experience in that regard – both from the more distant past and from the current, expanding cooperation. It is encouraging that bilateral cooperation between Tajikistan and Uzbekistan is growing. Joint management of the consequences of the Sardoba Dam disaster provided a good example of transboundary water cooperation in the case of water related disasters. The International Fund for Saving the Aral Sea is an important building block in the process of development or regional water cooperation. (20)

Afghanistan would like to actively participate in efforts to strengthen regional cooperation on water in the Aral Sea Basin. Developing balanced cooperation on water, fully respecting the economic interests of all participants is an important contribution to the sustainable economic development and stability of the whole region.

*To guarantee long-term water security: a smart regional investment concept to leverage green and climate financing*

There are also many opportunities that will arise in the process of further transformation in the Eurasian space, involving Russia, China, the European Union and others. In this dynamic landscape it becomes increasingly important to define an ambitious vision of further regional cooperation.

The countries of the region will be well advised to think ambitiously and look into the experience from other parts of the world as a source of inspiration. Seventy years ago Europe started an ambitious journey by establishing the Coal and Steel Community that laid the foundations for the subsequent cooperation and integration in Europe. Water is the equivalent of coal and steel – as far as the analogy between Central Asia and Europe is concerned. This analogy looks farfetched today, but so did coal and steel cooperation look a few decades ago.

In the current climate change affected world it is important to think in terms of transformation and to think boldly about big projects. There is a large gap between available financial resources and the ones needed for a major transformation. Central Asia has a better chance to attract large scale financing, including climate financing, by developing a regional “smart investment concept.” It could identify a number of regional investment opportunities. The pooling of capabilities and resources would ensure better positions vis-à-vis investors and help reduce risks. Displaying a strong commitment to regional cooperation would help develop a favorable investment climate. (21)

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 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 CO<sub>2</sub> 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 ability to attract investment: international development banks and other investors are always ready to participate in well-prepared projects supported by high-level political will. 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.

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.

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 gave 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 should follow suit.

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.

Central Asian countries need to define jointly how to invest as much as necessary to secure mid-term and long term water and economic resilience and as little as necessary to finance only productive, systemic and resilient assets in respect of sustainable natural resource management and climate change. Not less important is investment in the people, the experts, the engineers and other specialists who will be able to implement the ambitious projects contemplated now and in the future. This is why it is so important to support education, training and research and this is why the partners organizing this webinar are so keen on the preparation of the next generation for the tasks ahead.

### **Conclusions**

For three decades analysts kept repeating the mantra that disputes over water in Central Asia had been a stumbling block to regional economic and trade cooperation. Today economic cooperation and trade between the countries of the region is developing with unprecedented dynamism, still most of the problems hindering the integrated, efficient and rational management of water resources at the regional level remain. This entails significant risks: until cooperative, long-term solutions to the problems of the water sector are not in place, renewed disputes may negatively influence the prospects of economic development and regional stability and security. The development of a solid economic basis for regional cooperation on water, with a smart regional investment concept at its core, could proceed in parallel with a structured strategic dialogue on water in the 21st century, facilitating the translation of high-level political will into concrete steps, among others by preparing and providing decision support to the consultative meetings of Heads of State. (22)

It is time to engage in a strategic dialogue on water in Central Asia. There are mounting challenges linked to water: climate change, tremendous investment needs and an unpredictable geopolitical and geo-economic environment. Central Asian countries can address these challenges much more effectively, if they coordinate, if they act together as a team. Identifying shared strategic interests linked to water is the first step. (23)

---

### **References**

All quotes from:  
<https://carececo.org/en/main/news/news/vtoroy-vebinar-issledovatel'skoy-programmy-vo-da-kak-dvizhushchaya-sila-ustoychivogo-vosstanovleniya-o/>;  
<https://bluepeace-centralasia.ch/materials/the-third-webinar-water-as-a-driver-of-sustainable-recovery/>  
<https://bluepeace-centralasia.ch/materials/the-fourth-webinar-of-the-research-program/>;

1. Summary of the third webinar of the research program "Water as a driver of sustainable recovery" outlined the economic foundations of the regional cooperation on water in Central Asia, p. 2, URL: <https://bluepeace-centralasia.ch/materials/the-third-webinar-water-as-a-driver-of-sustainable-recovery/>
2. Summary of the fourth webinar of the research program "Water as a driver of sustainable recovery" outlined the economic foundations of the regional cooperation on water in Central Asia, p. 5, URL: <https://bluepeace-centralasia.ch/materials/the-fourth-webinar-of-the-research-program/>
3. Summary of the third webinar, p.6
4. Summary of the fourth webinar, p.8.
5. Summary of the third webinar, p.10
6. Summary of the third webinar, p.8
7. Summary of the third webinar, p. 9
8. Summary of the third webinar, p.9
9. Summary of the third webinar, p. 10
10. Summary of the third webinar, p.2
11. Summary of the third webinar, p.2
12. Summary of the third webinar, p.5
13. (ibid)
14. Summary of the third webinar, p. 6
15. Summary of the fourth webinar, p.8
16. Summary of the fourth webinar, p.5
17. Summary of the fourth webinar, p. 6
18. Summary of the fourth webinar, p. 2
19. Summary of the fourth webinar, p.3
20. ibid
21. ibid
22. Summary of the fourth webinar, p. 10
23. Summary of the fourth webinar, p. 10