Interstate **C**ommission for **W**ater **C**oordination in Central Asia	**BULLETIN No. 4 (89)**	December 2021

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DUSHANBE DECLARATION ON THE TWENTIETH ANNIVERSARY OF THE SHANGHAI COOPERATION ORGANISATION

(extract) [1]

September 17, 2021

On the twentieth anniversary of the founding of the Shanghai Cooperation Organization (hereinafter referred to as "the SCO" or "the Organization"), Member States.

Appreciating the positive role of the SCO in promoting and deepening good- neighbourly relations among member States and strengthening security and stability in the region,

Summarizing the achievements over the period of the Organization's operation and noting the high potential for further interaction among Member States,

Strictly following the principles and provisions of the SCO Charter, the Treaty on Long-term Good-Neighbourliness, Friendship and Cooperation of the SCO Member States, the SCO Development Strategy until 2025, the Shanghai Convention on Combating Terrorism, Separatism and Extremism, the Multilateral Trade and Economic Cooperation Programme, international treaties and normative legal documents of the Organization,

based on the "Shanghai spirit" which embodies mutual trust, mutual benefit, equality, mutual consultation, respect for the diversity of cultures, the pursuit of common development,

Determined to strengthen relations between Member States so that friendship between their peoples can be passed on from generation to generation,

Adhering to the principle of openness to the outside world and guided by the intention to contribute to strengthening a multipolar world order and building international relations based on universally recognized principles of international law, primarily the UN Charter;

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[1] Source: https://mea.gov.in/bilateral-documents.htm?dtl/34275/Dushanbe_Declaration_on_the_Twentieth_Anniversary_of_the_Shanghai_Cooperation_Organisation

Striving to make the Organization's space a region of peace, cooperation, sustainable development, prosperity and harmony;

on the outcome of the meeting of the SCO Council of Heads of State held in Dushanbe on 17 September 2021, state the following:

[…]

3. Security

[…]

3.3. International information security

Member States underscore that modern information and communication technologies (ICTs) bring new advantages and opportunities for the development of all humanity. They oppose discriminatory measures, under any pretext, that hinder the development of the digital economy and communication technologies.

[…]

Member States are categorically against the weaponization of the ICT sphere, considering it necessary to ensure the use of modern technologies for peaceful purposes, to create a safe, fair and open information space built on the principles of respect for state sovereignty and non-interference in the internal affairs of other countries.

[…]

4. Economic cooperation

The Member States consider that the primary task is to develop interaction in the trade and economic field, create favorable conditions for trade and investment on the principles of equality, fair competition, mutual respect and mutual benefit.

They note that the global economy continues to face numerous challenges that constrain its sustainable and balanced growth. Risks associated with the pandemic of a new coronavirus infection, increasing protectionism, including in the form of unilateral trade restrictions, have a negative impact on global economic prospects. Managing the financial and economic risks posed by climate change, resource depletion, environmental degradation, and the provision of resources for sustainable development is becoming important.

[…]

Member States will further strengthen cooperation in trade, production, transport, energy, finance, investment, agriculture, customs, telecommunications, innovation and other areas of mutual interest, including through the use of advanced, resource-efficient, energy-efficient, green and low-emission technologies, in the interests of improving the well-being and living standards of the population, and ensuring sustainable development of the member states.

The Republic of Kazakhstan, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian Federation, the Republic of Tajikistan and the Republic of Uzbekistan, while reaffirming their support for China's One Belt and Road Initiative (OBOR), note the ongoing work to jointly implement the project, including efforts to build a bridge between the Eurasian Economic Union and the OBOR.

They advocate broad international cooperation in meeting the challenges of meeting humanity's resource needs without compromising the environment and public health, in achieving sustainable and quality economic growth by giving all States equal and equitable access to the benefits of economic globalization.

[…]

Member States emphasize the importance of sharing experiences on the design and implementation of national development strategies, digital economy plans and the adoption of innovative technologies, including to jointly bridge the technological and digital divide.

[…]

4.8. Agriculture and Development of Remote Areas

The Member States advocate further strengthening the role of the SCO in addressing the issues of food security, strengthening the world food market, and developing the production of organic and environmentally friendly products.

Member States, noting the importance of cooperation in agriculture, will develop cooperation in areas such as agricultural production and trade, veterinary and phytosanitary security, prevention and control of transboundary epizootics, exchange of experience in crop, seed and livestock production, agricultural research, digitalization of agriculture, smart agriculture and agro-innovation, organic production, implementation of organic products, and trade and investment.

They stressed the need to establish cooperation between the SCO and the UN World Food Programme and other international organisations in the field of agriculture.

The Member States note the importance of addressing the problem of reducing the gap in access to economic, social and other benefits between the population of urban centers and remote and rural areas of SCO countries. To achieve these goals they will promote the development of regions, remote and hard-to-reach areas, rural areas, using achievements and best practices, including in the field of digital technology and innovative developments. In this regard, the importance of practical implementation of agreements on the development of remote and rural areas in the digital age was emphasized.

[…]

4.10. Energy Cooperation

The Member States stress the need to increase mutually beneficial cooperation in the energy sector, including the wide use of renewable and alternative energy sources, and support the application of various cost-effective and environmentally friendly technologies that reduce negative environmental impact and promote energy security and the transition to cleaner and greener energy sources in an energy-efficient economy. They note the importance of jointly exploring ways to expand regional electricity interconnectivity among SCO member states.

Member States will seek to align national energy strategies on the basis of mutual respect and deepen cooperation with each other to develop sustainable energy and reduce greenhouse gas emissions. Taking into account national interests, Member States will continue to promote full-scale energy dialogue and practical cooperation among energy producing, transit and consuming states.

The Member States decided to establish a mechanism for the Meeting of Energy Ministers of SCO Member States.

[…]

4.12. Digitalization and Development of Innovation

Member States emphasize the importance of innovation as a key driver of medium- and long-term economic growth and global sustainable development.

Noting the need for focused attention to address the social and economic impacts of the digital divide among Member States, they emphasize the importance of deepening mutually beneficial cooperation and sharing

experiences in the digital economy and use of digital technologies. Member States oppose discriminatory measures under any pretext that impede the development of the digital economy and communication technologies.

Member States consider it important to continue sharing knowledge and best practices, as well as conducting joint research by scientific, educational institutions and organizations in the field of digitalization, innovation and information and communication technologies.

5. Humanitarian cooperation

The Member States are convinced that the progressive development of cultural and humanitarian cooperation within the SCO framework remains an unconditional priority. Over the past period it has been possible to achieve a high level of interaction in culture, education, science and technology, health, environmental protection, tourism and sport.

[…]

5.2. Education

Member States advocate deepening cooperation in education and intend to take additional measures to develop innovative educational technologies, use new information and communication and multimedia tools to ensure quality education, achieve optimal results in training students.

The Member States stress the importance of further activities of the SCO University, including by involving interested states in its work.

5.3 Scientific and technical cooperation

Member States note that cooperation in science and technology is in the interest of all Member States and is important for the development of their economies.

They consider it necessary to develop priority directions of scientific and technical cooperation in accordance with the national legislation, including the consideration of the possibility of creating a funding mechanism for joint projects in this area.

[…]

5.5. Environmental protection and Climate Change

Member States note the importance of cooperation in the fields of environmental protection, environmental security, mitigation of the adverse effects of climate change, biodiversity conservation and use, and the exchange of experience and operational information on these matters. They recognize that lack of access to safe drinking water, basic sanitation and healthy hygiene are major challenges of our time and note the need to focus on sustainable development and integrated water resources management.

Member States are convinced that the climate agenda should not be used to introduce measures restricting trade and investment cooperation. Efforts will be made to establish an active dialogue with relevant international institutions in order to attract investments and finance joint projects and programs in the field of environmental protection and implementation of new environmentally friendly technologies, increasing the share of "green" economy.

5.6 Emergency Situations

Member States note the need for continued cooperation in jointly addressing and promptly responding to natural and man-made hazards.

Member States emphasize the need to continue efforts in disaster risk reduction and emergency response capacity building. They intend to strengthen cooperation in areas such as exchange of operational information, training, joint disaster and accident management exercises, as well as to promote cooperation in disaster management in border regions. The Member States will develop cooperation with the UN, other international and regional organizations in these areas.

5.7 Strengthening the role of women

The Member States stress the need to ensure wider participation of women in political, economic, public, social and other spheres of activity. They consider it important to hold regular forums, congresses and meetings of women within the SCO framework.

[…]

On September 14, the 75th anniversary session officially ended, and the 76th session of the United Nations General Assembly opened. The new President of the United Nations General Assembly, Abdullah Shaheed of the Maldives, took the baton from Volkan Bozkar of Turkey, stating that the focus of the current session would be on poverty and climate change. While supporting the stated priorities, UN Secretary General António Guterres emphasized that many of these problems are related to inequality and the legacy of colonialism.

«I call the 76th session «Super Session dedicated to nature saving», as it will run in parallel with several major international forums on climate change and environmental protection», said Abdullah Shahid. He recalled that the people of Maldives, where they came from, faced daily threats from global climate change and sea-level rise. Ежегодные общие прения состоялись 21-27 сентября.

The leaders of the Central Asian countries spoke by video link.

SPEECH BY PRESIDENT OF THE REPUBLIC OF KAZAKHSTAN KASSYM-JOMART TOKAYEV AT THE 76TH SESSION OF THE UNITED NATIONS GENERAL ASSEMBLY

(extract) [2]

[...]

In my statement, I will focus today first and foremost on the triple threat we face together: COVID-19 recovery; the climate crisis; and the humanitarian situation in Afghanistan.

Ladies and gentlemen, carbon dioxide levels are at record highs. Wildfires, cyclones, floods and droughts have become the new normal devastating populations and causing much preventable human suffering. As the large landlocked country, Kazakhstan's climate is warming faster than the global average and threatening our population and economy. The median annual

[2] Source: MIA «Kazinform»/ Access: https://www.inform.kz/ru/polnyy-tekst-vystupleniya-prezidenta-rk-na-obschih-debatah-76-y-sessii-genassamblei-oon_a3839957

temperature has increased by 2 degrees in the last 75 years with serious droughts now striking twice every five years. In response, Kazakhstan intends to achieve carbon neutrality by 2060. We are launching a national 2050 low-carbon development strategy next month to reduce GDP energy by 50% from 2008 levels. Since almost 70% of Kazakhstan's electricity generation depends on coal, the energy transition presents significant challenges. Access to green financing and «green» technologies will be critical to this transition and we look to the upcoming COP 26 conference in Glasgow for clear commitment on these issues. Without ambitious green financing ambitious climate action is empty. We also give great importance to the COP 15 of the Convention on Biological Diversity in Kunming in October 2021.

[...]

The implementation of the 2030 Agenda and the SDGs has suffered a considerable setback. Least developed countries, landlocked developing countries and small island developing States - some 91 countries in total are disproportionately affected by the pandemic, given their limited means to respond to shocks and vulnerability to that crisis. As the global chair of the group of LLDCs Kazakhstan appeals to all UN agencies to work together to deliver on the 2024 Road Map for accelerated implementation of the Vienna Program of Action. The 2030 agenda will remain unattainable until all countries have the financial capacity to invest in a sustainable and inclusive future. In this regard, we specifically call on all development partners to jointly address international liquidity and debt vulnerabilities.

The World Food Program estimates that 270 million people will face food shortages this year. Kazakhstan is a major grain producer and exporter and a founding member of the Islamic Organization for Food Security, whose fourth General Assembly was held last month in our capital. We invite foreign investors to join us in shaping a better, brighter future for sustainable agriculture. [...]

Turning to Central Asia, despite challenges to stability and security, we see a gradual strengthening of political and economic cooperation. Three Central Asian informal summits, the latest one held last month, are leading to a more cooperative and resilent region. Our regional policy aims to gradually replace the «zero sum» politics and makes right of the «Great game» with genuine cooperation and Great gain for the peoples in the Heart of Asia. This creates opportunities for greater global community engagement with Kazakhstan and Central Asia. We place great hope in the regional «C5+» dialogue frameworks with major extra regional actors. In such partnerships, we emphasize Central Asia's water related challenges, including water scarcity, degrading quality and inefficient use. Our region's water security is inextricably linked with energy,

food and environment. Despite the diverging interests of riparian States, Kazakhstan remains commited to a regional water hydropower consortium to coordinate different policies towards mutual goals.

[...]

SPEECH BY PRESIDENT OF THE KYRGYZ REPUBLIC SADYR ZHAPAROV AT THE 76TH SESSION OF THE UNITED NATIONS GENERAL ASSEMBLY

(extract) [3]

[...]

Distinguished Secretary General!

[3] Source: KNIA «Kabar» / Access: http://kabar.kg/news/videoposlanie-sadyra-zhaparova-na-76-i-sessii-general-noi-assamblei-oon/

On the 2nd of March 2022, we will also celebrate the 30th anniversary of Kyrgyzstan joining the United Nations Organization. Over that period, our country has been an active UN Member State, it has been fully committed to the aims and principles of the United Nations Charter, and has constantly favored strengthening the prestige and role of the UN in international affairs, which, unfortunately over recent decades have been characterized by tension and conflict. Our country is keen and always eager to make its contribution to international efforts to tackle shared problems facing humanity. Based on these considerations, Kyrgyzstan put forward its candidancy to the Human Rights Council for 2023-2025 and put forward its country as a non-permanent member of the UN Security Council for 2027-2028. We urge all UN Member States to support us in the elections.

Next year, the 30th anniversary of the UN will also be celebrated by our dear neighbours in the region, we share a common history and, I am convinced, a common future with them. I would like to underscore, that during our centuries-long relationship with our neighbours, Kyrgyzstan has always promoted equal dialogue and mutually acceptable cooperation. We have also advocated addressing all disagreements through negotiations. Along giving the significance of this date, in 2022 we propose holding a Central Asian UN summit. The idea is to take stock together of mutual cooperation and to develop joint plans for the future in terms of developing Central Asia and its security. We propose this Summit be organized during the advisory meeting of the Heads of State of Central Asia. I would ask the distinguished President of the General Assembly and the UN Secretary General to plan for their participation in their work schedules for next year.

[...]

The coronavirus pandemic was also a reason for the fact that achieving the SDGs (the Sustainable Development Goals) in Kyrgyzstan is not going to be possible on time and fully. We have had to re-channel finances earmarked for the SDGs to combat the pandemic and to service external debt. In this regard, we would urge our bilateral and multilateral creditors to support the initiatives on debt relief to very important sustainable development projects in Kyrgyzstan. These projects first and foremost are to preserve the integrity of our unique mountain ecosystem and its biodiversity and ice caps, which are swiftly being destroyed as a result of climate change. It is very unfortunate that in Kyrgyzstan there are some ill-intentioned investors, who are chasing after significant profit and abuse the people’s trust, and so they do not take due care that their activities do not harm the environment. In line with our with national legislation, the Kyrgyz authorities have been curbing these kind of activities and then have to deal with the ecological consequences.

Over the past three decades, Kyrgyzstan has been an active advocate of the interests of mountain States that are landlocked in order to tackle the challenges of sustainable development and the impact of climate change. On our initiative, 2002 was declared the «International Year of Mountains», and in that in Bishkek there was the First Global Mountain Summit, and in 2018 there was the Fourth World Mountain Summit. During this session of the UN General Assembly there is the «Group of Friends of Mountain Countries» and we are hoping that 2022 will be declared th International Year of Mountains, to confirm the five-year plan for sustainable development of mountain regions and in 2027 to create a Global Summit «Bishkek+25».

Distinguished Secretary General!

Over the past few years, the people and nature in our contry have significantly felt the negative impact of climate change. The position and views of our country will been put forward clearly at the forthcoming COP 26 on Climate Change in Glasgow.

I would like to take opportunity of this important rostrum to make a few remarks. Nonetheless for mountainous Kyrgyzstan one of the priority thorny areas is climate change adaptation. We pay particular attention to protecting the areas of our mountaint forests. Along with playing a natural function of absorbing carbon, they also play a very important role in preserving water resources. In this regard, we are in a favor of developing and adopting under the aegis of the UN a special targeted program on mountainous forests to protect them and replant.

As I have previously mentioned, ice caps and rivers are under threat in Kyrgyzstan. This year in UNESCO we are initiating a resolution «To protect mountain ice caps» and at the same time we are continuing to work with international partners to implement the provisions of the resolution «Nature knows no borders». This was put forward by Kyrgyzstan and was recently approved by the UN General Assembly. Some significant achievements have already been made. For example, thanks to the work with different countries, international organizations have managed to protect certain animals such as the the snow leopard.

Furthermore, by 2050 Kyrgyzstan will try to achieve carbon neutrality. Kyrgyzstan’s economy is becoming «greener», we are going to turn to carbon-free sources of energy and I am thinking first and foremost about hydroelecticity. In order to ensure energy security, Kyrgyzstan intends gradually to implement a number of projects to build hydroelectric stations that are ecologically clean sources of energy. Access to modern, environmentally friendly green and inexpensive energy resources in developing countries is

extremely important in terms of achieving the global aims in the area of development and in achieving the 2030 Agenda. We believe that achieving hydroelectric station building in Kyrgyzstan ensuring that we do this will meet Central Asian countries need for hydroelectricity and thus will create good conditions for the sustainable development of our region. I invite investors to work closely with the hydroelectric sector, including based on a public-private partnership principle in the spirit of the Paris Agreement.

In concluding this particular topic, Kyrgyzstan trusts that the support and assistance of the international community, the UN and international financial institutions will be paid to solving the problems of the ecosystems and ecologies of mountainous countries that are landlocked. In this regard, we trust that the issue of setting up within the UN a special global fund to support mountainous countries in achieving the sustainable development goals and adapting and preventing climate change will be addressed.

[...]

SPEECH BY PRESIDENT OF THE REPUBLIC OF TAJIKISTAN EMOMALI RAHMON AT THE 76TH SESSION OF THE UNITED NATIONS GENERAL ASSEMBLY

(extract) [4]

[...]

Dear colleagues,

Climate change challenges are also a serious obstacle to achieving Sustainable Development Goals in many countries, including Tajikistan.

Tajikistan, with 93 per cent of its territory covered by mountains is concerned along with other countries in the region about changes in the hydrological cycle leading to severe floods and droughts and causing a negative impact on water, energy and food security.

Unfortunately, our country loses hundreds of millions of dollars annually

[4] Source: Official website of the President of Tajikistan / Access: http://www.president.tj/ru/node/26688

as a result of water-borne disasters, and in many cases natural disasters cause human losses and destruct vital infrastructure.

We are today on the eve of the 26th session of the United Nations Convention on Climate Change.

We believe that this meeting will significantly contribute to achieving the goals of the Paris Agreement and accelerate the efforts of the international community in the fight against climate change.

One of the serious consequences of this process is the melting of glaciers.

As a result of climate change and unprecedented warming, more than 1,000 of 13,000 glaciers in Tajikistan's mountains have completely melted.

According to the available statistics, the Fedchenko glacier alone has shrunk to 11 square kilometres in recent decades in Tajikistan and lost 2 cubic kilometres of ice.

This all is happening despite the fact that up to 60 per cent of Central Asia's water resources originate from Tajikistan glaciers.

Our country ranks 135th in the world in terms of carbon dioxide emissions and produces 96% of its electricity in hydroelectric power stations.

As the Head of State and such a country, I have made concrete proposal at international conferences on several occasions to find solutions to the problems associated with climate change.

As a member of the founding group of the World Water and Climate Coalition, I proposed at its first high-level meeting to declare the year of 2025 as the International Year for Glaciers Preservaion.

It is my firm belief that this initiative will help to attract more attention of the world community to the Water and Climate Agenda and the melting of glaciers.

The establishment of the International Fund for Glaciers Preservation under the auspices of the United Nations is another step that could provide a basis for comprehensive research and effective solutions to this global challanges.

Mr Chairman,

Tajikistan is recognized as an initiate and champion country and contributes to the process of promoting water and climate Agenda and the Global Development Agenda and submitting relevant UN resolutions on these issues.

The International Decade for Action «Water for Sustainable

Development, 2018-2028» initiated by Tajikistan and declared by the United Nations is under the implementation today.

The international community is looking forward to the United Nations Conference on the Comprehensive Mid-term Review of this Decade, to be held in New York in 2023.

As in almost 50 years, this will be the second special conference of the United Nations on water, which will once again demonstrate a key role of water issues and the Global Development Agenda and the achievement of the Sustainable Development Goals.

We are proud that Tajikistan, together with the Kingdom of Netherlands are elected as co-chairs of this important international forum.

In that regard, we have already begun preparations with our partners, including with the Kingdom of the Netherlands and the United Nations Department for Economic and Social Affairs and are taking steps to organize a comprehensive and high-level conference.

We would like to encourage all stakeholders to cooperate extensively in this process.

Let me recall that in 2022 our country will host the International High-level Conference on the Review of the International Decade for Action «Water for Sustainable Development».

We believe that this forum will play an important role in preparations for the 2023 Water Conference.

I take this opportunity to reaffirm my country’s preparedness and commitment to advance water and climate Agenda at all levels, particularly in cooperation with the United Nations.

SPEECH BY PRESIDENT OF TURKMENISTAN GURBANGULY BERDIMUHAMEDOV AT THE 76TH SESSION OF THE UNITED NATIONS GENERAL ASSEMBLY

(extract)

[...]

Distinguished participants!

The current state of global realities and the nature and trends of political, economic and social processes objectively require closer and more coordinated cooperation among countries and major international organizations in order to achieve our primary common goal to ensure global peace and security, the conditions for further sustainable development and progress and to preserve the legal and institutional foundation that forms the basis of the modern world order.

The degree to which this cooperation is effective will largely depend on whether a common denominator can be found between national interests and global goals and priorities or put it another way. Will we as members of the global community show sufficient responsibility foresight and political will to overcome diasgreements, tactical divergences and differences in approaches and assessments to focus on achieving strategic, long-term development objectives, resolving the most acute global problems – such as issues of environment,

energy and food, the equitable distribution of water resources, alleviating poverty, protection form natural disasters, countering terrorism, drug related threats and other challenges.

[...]

Distinguished participants!

During this session, Turkmenistan looks forward to continuing a broad dialogue on achieving these Sustainable Development Goals. In our view, the main priority is effective colloboration and the practical compatibility of the global, regional and national instruments being used to implement the SDGs.

We call for the active promotion of adequate financing for the 2030 Agenda for Sustainable Development.

In this regard, we believe that it is necessary to organize another international conference on financing for development as soon as possible.

We will continue to pay attention to and draw the attention of the global community to the issue of mitigating the consequences of an environmental and ecological disaster of the Aral Sea. During the upcoming session, Turkmenistan together with its partners in the region intends to pursue the creation of a UN special program for the Aral Sea basin.

[...]

SPEECH BY PRESIDENT OF UZBEKISTAN SHAVKAT MIRZIYOYEV AT THE 76TH SESSION OF THE UNITED NATIONS GENERAL ASSEMBLY

(extract) [5]

[...]

Dear friends

We are consolidating a completely new political environment in the Central Asian region in the spirit of mutual understanding and respect, good neighborliness and strategic partnership.

Our main objective is to make Central Asia a place of prosperity and sustainable development, trust and friendship.

To this end, we attach priority to strengthening the interactions with neighboring and adjacent regions.

[5] Source: UzA / Access: https://uza.uz/ru/posts/vystuplenie-prezidenta-respubliki-uzbekistan-shavkata-mirziyoeva-na-76-y-sessii-generalnoy-assamblei-organizacii-obedinennyx-naciy_303925

In this regard, we have put forward a proposal to adopt a special Resolution of the United Nations General Assembly on strengthening the interconnectivity of Central and South Asia.

[...]

Dear participants of the session!

Uzbekistan pays a special attention to combating the climate change, protecting the environment and biodiversity.

This is our noble human duty not only for today, but also before the future generations.

I would like to take this opportunity to express my deep gratitude to all Member States for the adoption of a Special Resolution of the UN General Assembly declaring the Aral Sea Region as a zone of environmental innovation and technology.

We are determined to achieve the goals of the Paris Agreement.

We are taking concrete steps to move towards the renewable energy sources.

In particular, it is envisaged to double the energy efficiency of our economy by 2030, increase the share of renewable energy by 25% and develop environmentally clean transport.

By 2025, it is scheduled to commission the new solar and wind power plants with a total capacity of 2,900 megawatts.

In 2022, we intend to hold a High-Level International Forum in cooperation with the United Nations on «green energy» in the Aral Sea Region in the city of Nukus.

We support the adoption of the Global Biodiversity Program in the near future.

In addition, in the future we stand ready to host one of the meetings of the parties to the Biodiversity Convention in our country.

Along with this, we propose to hold the Sixth High-Level Assembly under the auspices of the United Nations in 2023 in Uzbekistan for in-depth discussions of the priorities of global environmental policy.

The participants of the Assembly will have an opportunity to learn about the difficult situation in the Aral Sea Region, which is the center of an ecological disaster caused by the drying up of the Aral Sea, and draw the necessary conclusions.

In addition, we intend to put forward an initiative in the Assembly to

develop a Global Environment Charter aimed at laying the foundations of a new environmental policy of the United Nations.

[...]

JOINT STATEMENT BY THE PRESIDENT OF TURKMENISTAN G.M. BERDMUHAMEDOV AND THE PRESIDENT OF THE REPUBLIC OF UZBEKISTAN Sh.M. MIRZIYOYEV

(extract)[6]

At the invitation of the President of the Republic of Uzbekistan Shavkat Mirziyoyev, an official visit of the President of Turkmenistan Gurbanguly Berdimuhammedov to Uzbekistan took place on 4-5 October 2021.

The Presidents of Turkmenistan and the Republic of Uzbekistan (hereinafter - the Parties),

[...]

Declare the following:

[...]

12. The Heads of State noted that the transboundary water resources of Central Asia are the common good of the people in the region and that the fate of tens of millions currently living and of future generations depends on equitable and rational use of these resources, stability and well-being of the entire region.

The importance of continuing open dialogue in this area, enhancing mutual understanding and developing constructive cooperation, and finding mutually acceptable, fair and rational solutions was noted.

The Heads of State welcomed the outcome of the first meeting of the Intergovernmental Commission on Water held in Tashkent on 13 September 2021 and instructed the concerned ministries and departments to work together intensively on the agreements reached during this meeting.

The Parties are considering the International Fund for Saving the Aral Sea (IFAS) to be a universal platform for cooperation among the Central Asian countries in implementation of environmental and scientific-technological projects and programs aimed at environmental rehabilitation of regions affected

[6] Source: «Turkmenistan: Golden Age» / Access: https://turkmenistan.gov.tm/ru/post/57616/sovmestnoe-zayavlenie-prezidenta-turkmenistana-gmberdymuhamedova-i-prezidenta-respubliki-uzbekistan-shmmirziyoeva

by the Aral Sea disaster.

13. The Parties noted the need for the two countries to work closer together to mitigate global climate change processes, develop and implement joint measures to prevent and manage natural and man-made hazards.

The Parties stressed the importance of an initiative on developing the regional programme “Green Agenda for Central Asia” launched during the Third Consultative Meeting of the Heads of State of Central Asia.

[...]

16. The Parties reaffirmed their commitment to promote gender equality and empower women, who are key to peace and harmony in our society, and ensure full utilization of human potential for the Sustainable Development Goals.

[...]

21. The Heads of State expressed their interest in further strengthening cooperation and mutual support under umbrella of the United Nations, the Commonwealth of Independent States, the Organization of Islamic Cooperation, the Economic Cooperation Organization, the Cooperation Council of Turkic-speaking States and other international and regional organizations and forums.

[...]

The Turkmen Party expressed its readiness tojointly implementthe UNGA Resolution “On declaring the Aral Sea Region a Zone of Environmental Innovations and Technology” of 18 May 2021, adopted on the initiative of the Uzbek side.

The Heads of State express the hope that the International Innovation Centre of the Aral Sea Region under the President of the Republic of Uzbekistan and the Multi-partner Human Security Trust Fund for the Aral Sea Region under the auspices of the United Nations will make a worthy contribution to improving environmental conditions, the social and economic situation in the Aral Sea region.

Turkmenistan supports holding the International High-Level Forum on Green Energy in Nukus in 2022 and the Sixth High-Level Assembly under the auspices of the United Nations in Uzbekistan in 2023.

[...]

FIFTH MEETING OF THE WORKING GROUP ON INSTITUTIONAL AND LEGAL IMPROVEMENT OF IFAS

On October 18, 2021, the 5th meeting of the Working Group on the Institutional and Legal Improvement of IFAS was held in Dushanbe. Members of the Working Group from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, representatives of the Executive Committee of IFAS and its branches, structural divisions of ICWC and ICSD, as well as the World Bank attended the meeting. This is the second meeting in the period of Tajikistan's chairmanship in IFAS.

The draft discussion paper developed by international consultants of the World Bank was presented to members of the Working Group. This is the synthesis of proposals and recommendations on the 1st stage of institutional and legal improvement of IFAS and also the analysis of institutional and functional problems of IFAS and its divisions, which is a contribution to the 2nd stage of work.

Members of the Working Group discussed the proposals and recommendations for the 1st and 2nd stages of this work on the improvement of IFAS.

COORDINATION MEETING OF EC IFAS AND INTERNATIONAL DEVELOPMENT PARTNERS

The Coordination Meeting of EC IFAS and international development partners was held with the support of the WB's CAWEP Program in Dushanbe on October 18, 2021.

The Meeting was attended by representatives of the Governments of Central Asian countries, Mr. Usmonali Usmonzoda, Deputy Prime Minister of the Republic of Tajikistan, Mr. Serikkali Brekeshev, Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, Mr. Allanur Altyev, Minister of Agriculture and Environmental Protection of Turkmenistan (online), Mr. Shavkat Khamraev, Minister of Water Management of the Republic of Uzbekistan, representative of the Kyrgyz Republic, representatives of development partners - Ms. Tatyana Proskuryakova, World Bank Regional Director for Central Asia (online), Ms. Terhi Hakala, EU Special Representative for Central Asia (online), Ms. Shanny Campbell, Country Director of the Asian Development Bank in Tajikistan, Mr. Ibrahim Shoukry, Head of the Islamic Development Bank Regional Hub in Almaty, Mr. Peter Young, Deputy Director of the Regional Mission in Central Asia, Mr. Guy Bonvin, Swiss Special Envoy for Water in Central Asia, Mr. Alexey Zavalin, Department of Agricultural Sciences, Russian Academy of Sciences and other concerned persons.

The Coordination Meeting was aimed to present ASBP-4, establish communication, strengthen and expand cooperation with the development partners for exchange of information about the ongoing activities and future plans and ensure synergies and joint implementation of projects and programs in the region. The meeting also gave opportunity to exchange on difficulties and obstacles faced by the partners in implementation of regional projects and ways to overcome them and improve the effectiveness of measures taken.

Also, the meeting proposed to create a coordination platform for EC IFAS and international partners for regular meetings to exchange information and discuss current issues on project implementation in the region.

In conclusion, a Joint Statement of the EC IFAS and international development partners on implementation of the Action Program on Assistance to the countries of the Aral Sea Basin (ASBP-4) was adopted.

Joint Statement of the Executive Committee of IFAS and International Development Partners on implementation of the Action Program on Assistance to the countries of the Aral Sea Basin (ASBP-4)

The Coordination meeting of the Executive Committee of the International Fund for Saving the Aral Sea (IFAS) and international development partners took place on October 18, 2021 in Dushanbe, Republic of Tajikistan. The meeting was attended by representatives of the Governments of Central Asia countries, IFAS institutions, donor countries, financial institutions and other international development partners.

The meeting was aimed at presentation of the ASBP-4, strengthening and expanding cooperation among the Governments of all Central Asia countries, IFAS institutions and international development partners for exchange of information on the ongoing activities and future plans, and ensuring synergies in joint implementation of projects and programs at the regional level.

The ASBP-4 was approved by the decision of the IFAS Board on June 29, 2021 in order to implement joint projects and perspective programs to address the Aral Sea crisis and strengthen cooperation through targeted actions at the national, regional and international levels. The program aims to improve the water management, environmental and socio-economic situation for sustainable development and improved livelihoods of people in the Aral Sea basin. Implementation of the ASBP-4 is particularly relevant in the current realities of climate change, population growth, urbanization, and industrialization processes, as well as decreasing availability of water in the region and deterioration of its quality. By the Resolution of the IFAS Board, the Executive Committee of IFAS was instructed, together with the Inter-State Commission on Water Coordination (ICWC) and the Inter-State Commission on Sustainable Development (ICSD), to ensure implementation of the ASBP-4 and provide regular updates on the ASBP-4 progress to the IFAS Board.

Along with the implementation of the ASBP-4, the IFAS is investing efforts in the process of improving the institutional, legal and regulatory framework of the Fund for establishment of an effective and sustainable institutional framework resilient to the emerging challenges and enabling full-fledge mutually beneficial regional cooperation. This task is also included in the ASBP-4 to improve capacity and mandate of the IFAS institutions to effectively implement and manage the full breadth of ASBP-4.

Recognizing the importance and timeliness of ASBP-4 implementation in accordance with the best global practices and highest standards, participants of

this meeting expressed their willingness:

- To join efforts in establishing a platform for dialogue and coordination among all Central Asian countries and international development partners on the regional initiatives aligned with the ASBP-4 objectives and priorities. The platform will ensure transparent and effective implementation of relevant programs and projects of regional and cross-sectoral significance co-financed by international development partners, governments and other stakeholders;

- To provide targeted support to the Executive Committee of IFAS in designing and establishing adequate arrangements for monitoring performance and progress of the ASBP-4 and ensuring linkages with other regional projects and programs through annual reviews;

- To consider opportunities for aligning regional initiatives planned by international development partners with the priorities laid out in the ASBP-4 for the benefit of all stakeholders;

- To ensure an inclusive approach to consultations on design of mutually beneficial implementation arrangements for activities and projects included in the ASBP-4;

- To join efforts for co-financing of mutually beneficial and cross-sectoral activities and projects of ASBP-4 under different modalities and financing terms;

- To encourage an open, regular and transparent exchange of information and join efforts in advancing the improvement of the institutional, legal and regulatory framework of IFAS to ensure that the changes and recommendations proposed in this process are duly reflected in the proposals for financing, implementation and monitoring arrangements of regional projects and programs co-financed by international development partners.

This joint statement prepared as an outcome document of the Coordination meeting of the Executive Committee of IFAS and international development partners aims to reflect the readiness of the parties for deepening cooperation related to implementation of objectives and priorities of the ASBP-4.

Republic of Tajikistan, Dushanbe

October 18, 2021

CENTRAL ASIAN REGIONAL PREPARATORY CONFERENCE FOR THE 9th WORLD WATER FORUM "WATER SECURITY FOR PEACE AND DEVELOPMENT"

The Central Asian Regional Preparatory Conference for the 9th World Water Forum "Water Security for Peace and Development" was held in Dushanbe from 19 to 20 October 2021, pursuant to the decision of the Board of the International Fund for Saving the Aral Sea of 29 June 2021 on preparations for the 9th World Water Forum.

The Conference aims to identify and discuss the focus of regional processes and key themes to be presented for dialogue at the 9th Forum, formulate and agree on a regional agenda for the 9th World Water Forum in accordance with its priority topics and the most important issues for the Central Asian region, and strengthen regional cooperation and partnerships at all levels to promote the implementation of the International Decade for Action "Water for Sustainable Development", 2018-2028.

The conference consisted of six thematic sessions in the context of the Sustainable Development Goals:

1. Ensure universal access to safe water and adequate sanitation to respond to new challenges, including COVID-19.

2. Transboundary water cooperation for sustainable development.

3. Effective water resources management for increasing agricultural production and provide employment opportunities in rural areas.

4. Water, Energy and Food nexus.

5. Climate change adaptation and water related disaster risk reduction.

6. Financing the water sector.

The Conference was attended by the representatives of Governments, representatives of the water sector and other stakeholders in Central Asia, the World Water Council, the Secretariat of the 9th World Water Forum, international and regional organizations, international financing institutions, NGOs, civil society, academia, experts and other interested parties.

Resolution
of participants of the Central Asian Sub-regional Preparatory Conference for the 9th World Water Forum “Water Security for Peace and Development”

We, the participants of the Central Asian Sub-regional Preparatory Conference for the 9th World Water Forum, representing governments, international and regional organizations, UN agencies, financial institutions, civil society and other stakeholders of the sub-region:

considering the importance of preparing an agreed Central Asian agenda for the 9th World Water Forum, making a worthy contribution to this global event and to the UN Water Conference to be held in New York City on March 22-24, 2023;

bearing in mind the key role assigned to sustainable development, peace and security, given to efficient management of water, energy and other natural resources at all levels, developed water management, energy, transport and other infrastructure to cope with growing challenges for sustainable development, peace and security in the Central Asian sub-region;

noting the transboundary nature of major watercourses in the sub-region, common socio-economic and environmental problems amid increasing water scarcity and competing water uses, impacts of climate change, degradation of ecosystems and risks of water-related disasters;

recognizing the positive contribution to ensuring water security and cooperation in the sub-region by existing bilateral and multilateral agreements, regional organizations and advanced approaches in national legislations;

underlining the different level of economic development and advancing reforms, the importance of improving the legal framework, information exchange, integration processes, as well as expanding and strengthening effective mechanisms of water cooperation and diplomacy, especially at transboundary level, including through measures to mitigate the Aral Sea environmental disaster of planetary scale, adaptation to climate change as well as other new challenges, including the COVID-19 pandemic;

emphasizing the importance of improving access to safe drinking water and sanitation for the population of the sub-region, which is an essential and necessary prerequisite for achieving the SDGs and the goals of the International Decade for Action "Water for Sustainable Development" 2018-2028, maintaining health and a decent quality of life;

stressing the importance of the agreements reached as a result of the Consultative Meeting of the Heads of States of Central Asia, held on August 6, 2021 in Turkmenbashi, Turkmenistan, especially on issues related to the activities of IFAS, including the importance of ongoing work to improve the IFAS organizational structure and legal framework taking into account the interests and participation of all Central Asian States;

noting the adoption by the IFAS Board on June 29, 2021 in Dushanbe, Republic of Tajikistan, of the Aral Sea Basin Program (ASBP-4), which is the basis for the governments of the sub-region, IFAS structural divisions and development partners to develop and implement projects aimed at improving the water, environmental and socio-economic situation in the Aral Sea Basin;

having discussed in the context of existing and potential water problems and risks of the Central Asian sub-region the priorities of the 9th World Water Forum (water security and sanitation; cooperation; water for rural development; tools and instruments), which require intensified actions to achieve the goals and targets on water contained in the 2030 Agenda for Sustainable Development:

noted the following:

Not all people in Central Asia have access to safe drinking water and adequate sanitation, especially in rural areas and in the social sphere. Providing safe drinking water in sufficient quantity for everyone and reliable water disposal systems (sewerage, wastewater treatment), especially taking into account COVID-19 pandemic control, should become the highest priority issues in national development strategies and programs, basin water management plans;

Existing problems in the Aral Sea basin as well as new global and regional challenges require urgent adaptation responses in the countries of the sub-region in order to achieve resilience to their negative impacts. Among these challenges amid population growth and increasing water consumption, the most alarming and requiring adequate measures are climate change causing intensive melting of glaciers and reduction of water reserves, deterioration of water quality, water- related natural disasters, degradation of irrigated lands, drainage systems and ecosystems in general;

Integrated Water Resources Management (IWRM) is an important tool for effectively linking different types of water use, rational use of water resources and achievement of water, food, energy and environmental security. Central Asian countries are moving towards transition to IWRM and making efforts to implement it using successful experience and best practices of other countries and river basins. Full-scale implementation of IWRM principles, especially regarding drinking water supply, wastewater disposal and sanitation in general,

hydropower, industrial water supply and its waste management, water conservation, land reclamation, water recreation development, requires considerable human, financial and technical resources, legal regulation and appropriate institutional mechanisms;

Water use for green development can be stimulated by linking economic, social and environmental aspects of water with the application of new financial and economic mechanisms, innovative technologies and infrastructure in all areas of its application in order to curb increasing negative impacts and pressures on water resources;

Reconstruction and modernization of outdated water infrastructure and hydrotechnical facilities being under construction on transboundary watercourses automation and digitalization are important tasks for achieving sustainable development and efficient water management and provision of water services;

Improvement of water and land productivity, including reduction of areas under water-intensive crops in favor of plants using less water in all countries of the sub-region should be considered as a priority for agricultural sector development;

For effective transboundary water management it is necessary to improve existing and develop new forms and tools of cooperation, strengthening dialogue, mutual understanding and responsible partnership;

Effective and coordinated implementation of ASBP-4 will make a worthy contribution to solving existing water, energy, climate, environmental, socio-economic and other problems in the countries of the region;

Improvement of the IFAS institutional structure and legal framework will contribute to creation of sustainable and effective regional institutions and mechanisms able to adequately address existing problems and respond to new challenges and risks.

The conference participants, taking into account the above-mentioned as well as other main aspects of the discussions held at the plenary and thematic sessions, call on:

the governments of Central Asian countries to make additional efforts to improve institutional and legal mechanisms, attract and apply progressive technologies and innovative approaches in water and environmental management, increase financing of water-related activities, as well as strengthen water cooperation;

financial institutions, international organizations, donor countries and other development partners to provide all possible financial, technical and

technological support to Central Asian countries to achieve sustainable development, including through active participation in the implementation of ASBP-4;

representatives of private sector to assist in solving water problems and introducing green technologies, including by introducing alternative energy sources and attracting investments, in particular through the mechanism of public-private partnership;

scientific/expert and civil communities to actively participate in discussions of water problems and generation of ideas, proposals to join efforts with governmental, private sectors and international organizations to solve them.

Conference participants also:

fully agree and are ready to contribute to the efforts of the international community to successfully prepare and hold the UN Water Conference in 2023 to make it a turning point for water issues at all levels;

call upon all stakeholders to continue consultations within the preparatory process for the 9th World Water Forum and in other international formats;

considering the uniqueness of the platform of the 9th World Water Forum, invite the Organizing Committee to continue preparatory work in order to adequately represent Central Asia at the Forum and further contribute to solving water problems in the sub-region;

call upon the Executive Committee of the International Fund for Saving the Aral Sea to finalize, taking into account discussions at the conference and subsequent consultations with all stakeholders, the draft position paper of the sub-region on priority themes of the 9th World Water Forum, presenting it as a side event at the Forum.

The conference participants express their gratitude to the Government of the Republic of Tajikistan for warm hospitality and the Executive Committee of the International Fund for Saving the Aral Sea, the Interstate Commission for Water Coordination, the Interstate Commission on Sustainable Development and other partners for organizing the conference at a high level and creating conditions for fruitful work.

Adopted October 20, 2021

Dushanbe, Republic of Tajikistan

JOINT STATEMENT BY THE PRESIDENTS OF TURKMENISTAN AND KAZAKHSTAN (extract)[7]

On October 25, 2021, the President of Kazakhstan Kassym-Jomart Tokayev made his first state visit to Turkmenistan upon invitation of President Gurbanguly Berdymukhammedov.

The Heads of State, in the traditional atmosphere of friendship, full understanding, openness and trust, held detailed and fruitful negotiations on the wide range of Turkmen-Kazakh strategic partnerships, and also exchanged views on topical international and regional issues of mutual interest.

[7] Source: Turkmenportal / Access: https://turkmenportal.com/blog/40783/sovmestnoe-zayavlenie-prezidentov-turkmenistana-i-kazahstana-gurbanguly-berdymuhamedova-i-kasymzhomarta-tokaeva

[...]

The Presidents declared the following:

[...]

The Heads of State recognized the importance of consolidating efforts to address the challenges of social, economic and environmental improvement in the Aral Sea basin, especially in areas prone to ecological disaster, in an integrated manner.

The Presidents agreed on the need for concerted actions to reduce water and air pollution, land degradation, increase forests and reduce risks of natural disasters, including floods, mudflows, droughts, and ensure access to clean drinking water.

They underlined the importance of the ongoing work on institutional and legal improvement of the International Fund for Saving the Aral Sea, taking into account the interests and participation of all Central Asian countries.

The Heads of State reaffirmed that transboundary water resources in Central Asia are the common good of all people in the region and that the fate of tens of millions currently living and of future generations and the stability and well-being of the entire region depend on equitable and rational use of these resources. In this context, they recognized the need to continue an open dialogue, strengthen mutual understanding, develop constructive cooperation and seek for mutually acceptable, just and sound solutions.

The Heads of State supported continued cooperation within the framework of Consultative Meetings of the Heads of Central Asia State, which served as a platform for addressing most topical issues of regional cooperation to form the atmosphere of friendship, trust, and good-neighbourliness.

The Presidents called for full implementation of agreements reached at the Consultative Meetings.

[...]

DECLARATION ON ALLIANCE RELATIONS BETWEEN UZBEKISTAN AND KAZAKHSTAN
(extract)[8]

The President of the Republic of Uzbekistan, Shavkat Mirziyoyev, and the President of the Republic of Kazakhstan, Kassym-Jomart Tokayev,

guided by the provisions of the Treaty of Eternal Friendship between the Republic of Uzbekistan and the Republic of Kazakhstan of 31 October 1998 and the Treaty of Strategic Partnership between the Republic of Uzbekistan and the Republic of Kazakhstan of 14 June 2013,

reaffirming their commitment to the purposes and principles of the Charter of the United Nations, the universally recognized norms of international law and international human rights standards,

proceeding from the centuries-old historical, spiritual and cultural

[8] Source: UzA / Access: https://uza.uz/ru/posts/deklaraciya-o-soyuznicheskix-otnosheniyax-mezhdu-respublikoy-uzbekistan-i-respublikoy-kazaxstan_326819

community of the peoples of the two countries, based on the inviolable principles of friendship, good-neighbourliness and mutual respect,

noting the crucial importance of the progress made in the progressive strengthening of large-scale cooperation between the Republic of Uzbekistan and the Republic of Kazakhstan during the 30 years of independent development of the two States,

willing to raise bilateral relations to a qualitatively new level, in line with the spirit of alliance, with a view to full utilization of the potential of the Uzbek-Kazakh strategic partnership,

expressing their conviction that alliance is in the vital and long-term national interest of the two fraternal peoples and will also be a key factor in ensuring peace, stability and security in Central Asia,

aiming for ensuring timely and full implementation of agreements reached between the Parties, adopt this Declaration and declare the following:

[...]

9. The Republic of Uzbekistan and the Republic of Kazakhstan attach great importance to achieving environmental and water security, as well as to preventing and eliminating emergency situations, and promote joint special programmes and projects, take necessary measures for environmental and water protection and the rational nature management, and will provide mutual assistance in case of environmental disasters and emergencies that endanger livelihoods and territories.

The Parties intend to pursue a coordinated policy for solution of environmental problems and prevention of and response to natural and man-made disasters and to establish a joint Central Asian Scientific Center for Climate Change.

10. The Presidents reaffirm that transboundary water resources in Central Asia are the common good of the peoples and that the fate of tens of millions and the stability and well-being of the entire region depend on their reasonable and equitable utilization.

To this end, they agreed to develop sustainable long-term mechanisms for mutually beneficial cooperation and to continue activity of the relevant Joint Working Group in order to develop proposals on all aspects of water relations between the two countries.

11. The Heads of State consider the International Fund for Saving the Aral Sea to be the main cooperation platform of the region’s countries for environmental and applied research projects and programs aimed at improving environmental and socio-economic health in the areas affected by the Aral Sea

disaster.

The Parties note the importance of the special UNGA resolution “On declaring the Aral Sea Region a zone of environmental innovations and technology” of May 18, 2021.

[...]

President
of the Republic of Uzbekistan
Shavkat Mirziyoyev

President
of the Republic of Kazakhstan
Kassym-Jomart Tokayev

Nur Sultan
6 December 2021

ANALYSIS OF HYDROLOGICAL CONDITIONS IN THE SYR DARYA AND AMU DARYA RIVER BASINS OVER THE GROWING SEASON 2021

1 Syr Darya River basin

The actual inflow to the upstream reservoirs in the Syr Darya basin (Toktogul, Andizhan, and Charvak reservoirs) was 14.3 km³ or 99.8% of the forecast and 78% of the norm for the growing season. The total lateral inflow to the Naryn and the Syr Darya (in the reaches up to the Shardara reservoir) was 6.8 km^3, including 1.41 km^3 from the Karadarya River, 0.23 $км^3$ from the Chirchik River, and 5.19 km^3 from collector-drainage flow, CDF (return flow) and small rivers.

By the beginning of the growing season, the upstream reservoirs have accumulated 10.04 km³. By the end of the growing season, the total water volume in the upstream reservoirs was 14.05 km³, i.e. 4.01 km^3 were diverted from the rivers.

Inflow from the Naryn River to the Toktogul reservoir was 8.76 km^3. This is by 0.59 km^3 more than the forecast and was 91% of the norm. Outflow from the reservoir was 5.17 km³ or 101% of the reservoir release schedule of BWO Syr Darya. Water diversion into the reservoir from the Naryn River amounted to 3.6 km^3, which is by 17% more than the schedule.

Water storage in the Bakhri Tochik reservoir was 3.46 km³ by the beginning of the growing season and 1.59 km³ by the end of the growing season. Inflow to the Bakhri Tochik reservoir amounted to 5.28 km³ and the outflow was 6.38 km³. Analysis of operation of the Bakhri Tochik reservoir showed that the inflow to the reservoir was 0.23 km³ more than planned by BWO Syr Darya's schedule, and, accordingly, the outflow from the reservoir was 0.25 km³ more than scheduled. Water losses from the reservoir, calculated by the water balance method, amounted to 0.35 km^3. which almost coincided with the forecast volume.

In the Shardara reservoir, water volume was 5.07 km³ by the beginning of the growing season and 0.67 km³ by the end of the growing season. Inflow to the Shardara reservoir was only 2.31 km³ or 68% of the forecast; outflow from the reservoir was 5.14 km³, including 4.26 km³ into the river; and 0.08 km^3 of water

was discharged into the Arnasay reservoir from the Shardara hydroscheme. The reservoir's water balance discrepancy was -1.57 km^3, which indicates to water losses in the reservoir and perhaps to inaccurate accounting of the flow at gauging stations.

According to the Aral-Syrdarya Basin Water Administration's data, the Koksaray reservoir was filled with 333 Mm^3 of water in April. 1,933 Mm^3 were drawn down from April till July.

Water supply to Aral and the Aral Sea region (Karateren GS) amounted to 0.321 km^3 by the data from KazHydromet and 0.201 km^3, according to BWO Syr Darya and the Committee for Water Resources of the Republic of Kazakhstan. The latter figure was used in the calculations of the river water balance.

The total water withdrawal from the Naryn River and the Syr Darya River was 9.95 km^3 or 84% of the limit in the reaches up to the Shardara reservoir. Over the growing season 2021, water withdrawal was 1.91 km^3 less than planned, based on water withdrawal limits approved by the ICWC meeting.

Water withdrawal from the Dustlik canal was 0.7 km^3 for the Republic of Kazakhstan, 0.14 km^3 for the Kyrgyz Republic, 1.49 km^3 for the Republic of Tajikistan, and 7.61 km^3 for the Republic of Uzbekistan.

Analysis of reservoir water balances in the Amu Darya basin (Table 1.3) has revealed negative balance discrepancy (losses) of -1.62 km^3 in total. River water balance discrepancy in the Toktogul-Shardara reach was 0.84 km^3 or 6% of regulated Syr Darya flow. Thus, the total water losses in the Syr Darya River basin are estimated from the water balance discrepancy at 2.46 km^3. It should be noted that this estimation is given under the assumption that there are no errors in accounting of river flow at the boundaries of the balancing sites; otherwise, water losses can be estimated as lower.

In the lower reaches of the Syr Darya River, runoff utilization is estimated at 5.65 km^3 (including water withdrawal, losses, minus lateral inflow).

Table 1.1

Water availability indicators in the Syr Darya River basin countries over the growing season 2021

Water consumer	Water volume, km^3	
	BWO schedule /limit	Actual
1 Total water withdrawal up to the Shardara reservoir	11.85	9.95
2 By state:		
– Kyrgyz Republic	0.25	0.14
– Republic of Uzbekistan	8.80	7.61
– Republic of Tajikistan	1.91	1.49
– Republic of Kazakhstan	0.90	0.70
3 By river reach		
3.1 Toktogul reservoir – Uchkurgan hydroscheme	3.95	3.44
of which:		
– Kyrgyz Republic	0.16	0.08
– Republic of Tajikistan	0.24	0.10
– Republic of Uzbekistan	3.55	3.27
3.2 Uchkurgan hydroscheme-Bakhri Tochik reservoir	1.08	1.12
of which:		
– Kyrgyz Republic	0.08	0.07
– Republic of Tajikistan	0.45	0.50
– Republic of Uzbekistan	0.54	0.54
3.3 Bakhri Tochik reservoir-Shardara reservoir	6.83	5.39
of which:		
– Republic of Kazakhstan	0.90	0.70
– Republic of Tajikistan	1.22	0.89
– Republic of Uzbekistan	4.71	3.80
4 In addition:		
– Inflow to the Shardara reservoir	4.08	2.31
– Discharge into the Arnasay	0.00	0.08
– Water supply to the Aral Sea and Aral Sea region [9]	1.26	0.20

[9] Committee for Water Resources of the Republic of Kazakhstan

Table 1.2

Syr Darya River water balance in the growing season 2021

Balance item	Water volume, km^3		Disrepancy (actual-plan)	
	Forecast /plan	Actual	km^3	%
1 Inflow to the Toktogul reservoir	8.18	8.76	0.59	7
2 Lateral inflow in the Toktogul reservoir – Shardara reservoir (+) reach	9.18	6.83	-2.35	26
of which:				
– Discharge from the Karadarya river	1.40	1.41	0.02	1
– Discharge from the Chirchik river	0.44	0.23	-0.21	48
– Lateral inflow from CDF and small rivers	7.35	5.19	-2.15	29
3 Flow regulation in the reservoirs: addition to the flow (+) or withdrawal (-)	-1.99	-2.50	-0.51	26
of which:				
– Toktogul reservoir	-3.07	-3.60	-0.53	17
– Bakhri Tochik reservoir	1.08	1.10	0.02	2
4 Regulated flow (1+2+3)	15.37	13.10	-2.27	15
5 Water withdrawal in the Toktogul – Shardara reach (-)	-11.85	-9.95	1.91	16
6 Water balance discrepancy**:** water losses (-) or unrecorded inflow to the river channel (+) in the Toктogul-Shardara reach	0.57	-0.84	-1.41	247
including % of regulated flow	4	6		
7 Inflow to the Shardara reservoir	4.08	2.31	-1.77	43
8 Water releases from the Shardara reservoir (into the river and water withdrawal)	3.89	2.83	-1.06	27
9 Flow regulation in the Koksaray reservoir: addition to the flow (+) or withdrawal (-)	7.97	5.14	-2.83	35
10 Runoff utilization (water withdrawal-lateral inflow+losses)	6.76	4.26	-2.51	37
11 Supply to the Aral Sea and Aral Sea region	1.68	1.60	-0.08	5

Table 1.3

Water balance of the Syr Darya River basin reservoirs in the growing season 2021

Balance item	Water volume, km^3		Discrepancy (actual-plan)	
	Forecast/ plan	Actual	km^3	%
1.Toktogul reservoir				
1.1 Inflow to the reservoir	8.18	8.76	0.59	7
1.2 Water volume in the reservoir:				
– beginning of the season (1 April 2021)	8.71	8.71	0.00	0
– end of the season (1 October 2021)	11.65	12.30	0.65	6
1.3 Outflow from reservoir	5.11	5.17	0.06	1
1.4 **Discrepancy:** unrecorded inflow (+) or water losses (-)	-0.13	0.00	0.13	
% of inflow to the reservoir	2	0	2	
1.5 **Flow regulation:** addition to the flow (+) or withdrawal (-)	-3.07	-3.60	-0.53	17
2.Andizhan reservoir				
2.1 Inflow to the reservoir	1.77	1.72	-0.05	3
2.2 Water volume in the reservoir:				
– beginning of the season (1 April 2021)	0.76	0.76	0.00	0
– end of the season (1 October 2021)	0.70	0.50	-0.20	29
2.3 Outflow from reservoir	1.83	2.00	0.17	9
2.4 **Discrepancy:** unrecorded inflow (+) or water losses (-)	0.00	0.01	0.01	
% of inflow to the reservoir	0	1	1	
2.5 **Flow regulation:** addition to the flow (+) or withdrawal (-)	0.06	0.28	0.22	
3.Charvak reservoir				
3.1 Inflow to the reservoir	4.43	3.86	-0.57	13
3.2 Water volume in the reservoir:				
– beginning of the season (1 April 2021)	0.56	0.56	0.00	0
– end of the season (1 October 2021)	1.57	1.25	-0.32	20
3.3 Outflow from the reservoir	3.44	3.46	0.02	1
3.4 **Discrepancy:** unrecorded inflow (+) or water losses (-)	0.0	0.29	0.27	
% of inflow to the reservoir	0	7	7	
3.5 **Flow regulation:** addition to the flow (+) or withdrawal (-)	-0.99	-0.40	0.59	59
4 Bakhri Tochik reservoir				
4.1 Inflow to the reservoir	5.05	5.28	0.23	5
4.2 Lateral inflow	0.30	0.20	-0.10	33

Balance item	Water volume, km^3		Discrepancy (actual-plan)	
	Forecast/ plan	Actual	km^3	%
4.3 Water volume in the reservoir:				
– beginning of the season (1 April 2021)	3.46	3.46	0.00	0
– end of the season (1 October 2021)	1.60	1.59	-0.02	1
4.4 Outflow from the reservoir	6.73	7.017	0.28	4
of which*:*				
– *discharge into the river*	6.13	6.38	0.25	4
– *water withdrawal from reservoir*	0.60	0.63	0.03	5
4.5 **Discrepancy:** unrecorded inflow (+) or water losses (-)	-0.48	-0.35	0.13	27
% of inflow to the reservoir	9	7	3	
4.6 **Flow regulation:** addition to the flow (+) or withdrawal (-)	1.08	1.10	0.02	2
5 Shardara reservoir				
5.1 Inflow to the reservoir	4.08	2.31	-1.77	43
5.2 Lateral inflow	0.00	0.00	0.00	
5.3 Water volume in the reservoir:				
– beginning of the season (1 April 2021)	5.07	5.07	0.00	0
– end of the season (1 October 2021)	0.98	0.67	-0.31	32
5.4 Outflow from reservoir	7.97	5.14	-2.83	35
of which:				
– *discharge into Arnasay*	0.00	0.08	0.08	
– *discharge into the river*	6.76	4.26	-2.51	37
– *water withdrawal from the reservoir*	1.21	0.80	-0.40	33
5.5 **Discrepancy:** unrecorded inflow (+) or water losses (-)	-0.20	-1.57	-1.37	
% of inflow to the reservoir	5	68	63	
5.6 **Flow regulation:** addition to the flow (+) or withdrawal (-)	3.89	1.94	-1.94	50
TOTAL flow regulation by reservoirs: addition to the flow (+) or withdrawal (-)	0.97	-0.68	-1.65	
TOTAL losses (-), unrecorded inflow (+)	-0.79	-1.62	-0.83	

2 Amu Darya River basin

The actual water content in the Amu Darya River at the nominal Atamyrat gauging station (upstream of intake to Garagumdarya) was 41.16 km³ or 0.46 km³ less than expected, estimated figure in BWO Amu Darya's schedule (Table 2.2).

Inflow to the Nurek HPP amounted to 15.46 km³ and turned to be higher of the forecast flow by 0.35 km³. Outflow from the reservoir was 11.83 km³ or by 0.37 km³ higher than in BWO Amu Darya's schedule. Water withdrawal from the river for accumulation of water in the Nurek reservoir amounted to 3.64 km³. Using the water balance method, a positive discrepancy of 0.55 km^3 was found. This may be attributed to unrecorded inflow to the Nurek reservoir and possibly inaccurate data on outflow from the reservoir (Table 2.3).

According to measurements at the Bir-Ata gauging station, inflow to the Tuyamuyun hydroscheme (TMHS) was 18.86 km³ or by 1.84 km³ less than expected. This did not allow accumulating planned volume of 3.2 km³ in TMHS reservoirs; the delay from schedule was 0.83 km^3. Water volume in TMHS reservoirs amounted to 2.37 km³ only by the end of the growing season. Outflow from TMHS was 4.59 km^3 less (!) than planned and amounted to 13.18 km³. The balance method determined a negative discrepancy of 5.96 km^3 in the Bir-Ata – Tyuyamuyun reach. This indicates to both water losses from TMHS reservoirs and possible inaccurate flow measurement at gauging stations.

Given such hydrological conditions, the established limit of water withdrawal into canals in the Amu Darya River basin was provided by 79% (Table 2.1). The total water withdrawal amounted to 31.38 km³, including 24.54 km³ downstream of the Atamyrat gauging station (starting from intake into Garagumdarya). During the growing season, the average water availability was 90% in the Republic of Tajikistan, 84% in Turkmenistan, and 71% in the Republic of Uzbekistan; in the lower reaches, water availability was 68% in Turkmenistan, 63% in the Republic of Uzbekistan, including 50% in Surkhandarya province.

Water availability decreased from the middle to the lower reaches by 25%, including by 23% in Turkmenistan and by 25% in Uzbekistan. Table 2.1.1 shows the data on ten-day water availability in the lower reaches of the Amu Darya River, which were most affected by uneven distribution of water deficit in the basin.

Discrepancy of the Amu Darya River water balance was negative in the Atamyrat GS (nominal) – Bir-Ata GS reach (which indicates to water losses) and estimated at 5.6 km^3 or about 15% of river runoff at the nominal Atamyrat

reach and 2.93 km^3 in the lower reaches (Tuyamuyun GS-Samanbay GS reach) or 30% of river runoff at Tuyamuyun GS.

Water in the amount of 0.63 km^3 was delivered to the Aral Sea region and the Aral Sea during the growing season (Amu Darya River runoff at the Samanbay GS plus discharged collector-drainage water) or 30% of BWO's schedule.

Table 2.1

Water availability indicators in the Amu Darya River basin countries over the growing season 2021

Water consumer	Water volume, km³		Water availability, %	Deficit (-), surplus (+) km³
	Limit/ Schedule	Actual	Season	Season
1. Total water withdrawal	39.67	31.38	79	-8.3
2. By state:				
Republic of Tajikistan	7.0	6.2	90	-0.7
Turkmenistan	15.5	13.0	84	-2.5
Republic of Uzbekistan	17.2	12.2	71	-5.1
3. Downstream of Atamyrat g/s*)	31.520	24.54	78	-7.0
of which:				
Turkmenistan	15.5	13.0	84	-2.5
Republic of Uzbekistan	16.0	11.6	72	-4.5
4. By river reach:				
Upper reaches	8.153	6.839	84	-1.3
of which:				
Republic of Tajikistan	6.95	6.24	90	-0.7
Surkhandarya province, Uzbekistan	1.20	0.60	50	-0.6
Middle reaches	16.207	14.650	90	-1.6
of which:				
Turkmenistan	10.47	9.58	91	-0.9
Republic of Uzbekistan	5.73	5.07	88	-0.7
Lower reaches	15.313	9.895	65	-5.4
of which:				
Turkmenistan	5.03	3.41	68	-1.6
Republic of Uzbekistan	10.285	6.49	63	-3.8
5. In addition:				
Emergency-environmental flow into canals in lower reaches	0	0		
of which:				
Turkmenistan	0	0		
Republic of Uzbekistan	0	0		
Water supply to the Aral Sea region and Aral Sea**	2.10	0.63	30	-1.5

*) Atamyrat g/s nominal – section of the Amu Darya River upstream of water intake into Garagumdarya

**) including the discharged collector-drainage water

Table 2.1.1

Water availability in provinces in the lower reaches of the Amu Darya River

Month	Ten-day	Dashoguz (Turkmenistan)			Khorezm (Uzbekistan)			Republic of Karakalpakstan		
		Water limit, m3/s	Water withdrawal, m3/s	Water availability, %	Water limit, m3/s	Water withdrawal, m3/s	Water availability, %	Water limit, m3/s	Water withdrawal, m3/s	Water availability, %
Apr	1	293	160	55	130	92	71	250	124	50
	2	300	186	62	150	93	62	300	168	56
	3	305	157	51	150	65	44	300	156	52
May	1	311	116	37	150	46	31	300	86	29
	2	306	241	79	150	128	85	400	254	64
	3	268	326	122	180	162	90	450	291	65
June	1	268	281	105	210	150	71	500	280	56
	2	298	294	99	250	226	91	550	472	86
	3	324	250	77	280	174	62	600	346	58
July	1	330	216	65	300	153	51	650	336	52
	2	336	214	64	320	152	47	650	332	51
	3	340	211	62	320	153	48	645	332	51
Aug	1	344	205	60	300	145	48	600	335	56
	2	356	212	60	270	142	53	500	342	68
	3	384	216	56	252	139	55	460	285	62
Sep	1	369	203	55	190	119	63	300	276	92
	2	304	190	62	170	113	66	200	290	145
	3	287	191	66	146	109	75	100	309	308
Total, Mm^3		5028	3406	68	3450	2079	60	6835	4409.5	65

Table 2.2

Amu Darya River water balance in the growing season 2021

Balance item	Water volume, km^3		Deviation (actual-plan)	
	Forecast /plan	Actual	km^3	%
1. Water content in the Amu Darya River - non-regulated flow at Atamyrat g/s nominal*	41.61	41.16	-0.46	1
2. Flow regulation in the Nurek reservoir: addition to the flow (+) or withdrawal (-)	-3.66	-3.64	0.02	1
3. Water withdrawal in the middle reaches (-)	-16.21	-14.65	1.56	10
4. Return (collector-drainage) flow in middle reaches (+)	1.62	1.60	-0.02	1
5. Water losses (-) or unrecorded inflow to the river (+)	-2.66	-5.60	-2.94	110
% of flow at nominal Atamyrat g/s	7	15	8	
6. River flow at Bir-Ata g/s	20.70	18.86	-1.84	9
7. Outflow from Tuyamuyun hydroscheme (including withdrawal from reservoir)	17.77	13.18	-4.59	26
8. Withdrawal in lower reaches, including withdrawal from TMHS (-)	-15.31	-9.89	5.42	35
9 Return (collector-drainage) flow in lower reaches (+)	0.00	0.00	0.00	
10 Emergency-environmental flow into canals (-)	0.00	0.00	0.00	
11 Flow losses (-) or unrecorded inflow to the river (+)	-1.74	-2.93	-1.19	69
% of flow at Tuyamuyun g/s	14	30	15.95	
12 Supply to the Aral Sea region and Aral Sea (Samanbay GS)	0.72	0.35	-0.37	51
TOTAL losses:	-4.40	-8.54	-4.13	94
% of river water content	11	21	10	

***** Amu Darya River runoff upstream of the intake into Garagumdarya, taking into account the estimated natural flow at the Nurek HPP (without regulation of the Vakhsh River runoff)**.**

Table 2.3

Water balance of the Amu Darya River basin reservoirs in the growing season 2021

Balance item	Water volume, km^3		Discrepancy (actual-plan)	
	Forecast /plan	Actual	km^3	%
1 Nurek reservoir				
1.1. Inflow to the reservoir	15.11	15.46	0.35	2
1.2. Water volume in the reservoir:				
– beginning of the season (1 April 2021)	6.38	6.38	0.00	0
– end of the season (1 October 2021)	10.52	10.57	0.05	1
1.3. Outflow from the reservoir	11.45	11.83	0.37	3
1.4. **Balance discrepancy:** unrecorded inflow (+) or losses (-)	0.48	0.55	0.07	
% of inflow to reservoir	3	4	0.41	
1.5. **Flow regulation**: addition to flow (+) or withdrawal (-)	-3.66	-3.64	0.02	1
2 TMHS reservoirs				
2.1 Flow at Bir-Ata g/s	20.70	18.86	-1.84	9
2.2 Water volume in the reservoirs:				
– beginning of the season (1 April 2021)	2.65	2.65	0.00	0
– end of the season (1 October 2021)	3.20	2.37	-0.83	26
2.3 Outflow from hydroscheme	17.77	13.18	-4.59	26
Of which:				
– outflow into the river	12.81	9.93	-2.88	22
– water withdrawal	4.96	3.25	-1.71	34
2.4 **Balance discrepancy**: unrecorded inflow (+) or losses (-)	-2.38	-5.96	-3.59	151
Including % of inflow to the reservoir	11	32	20	
2.5 **Flow regulation**: addition to flow (+) or withdrawal (-)	-7.89	-8.94	-1.04	13
TOTAL flow regulation by the reservoirs: addition to flow (+),withdrawal (-)	-11.55	-12.57	-1.02	9
TOTAL losses (-), unrecorded inflow (+)	-1.90	-5.41	-3.51	185

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