



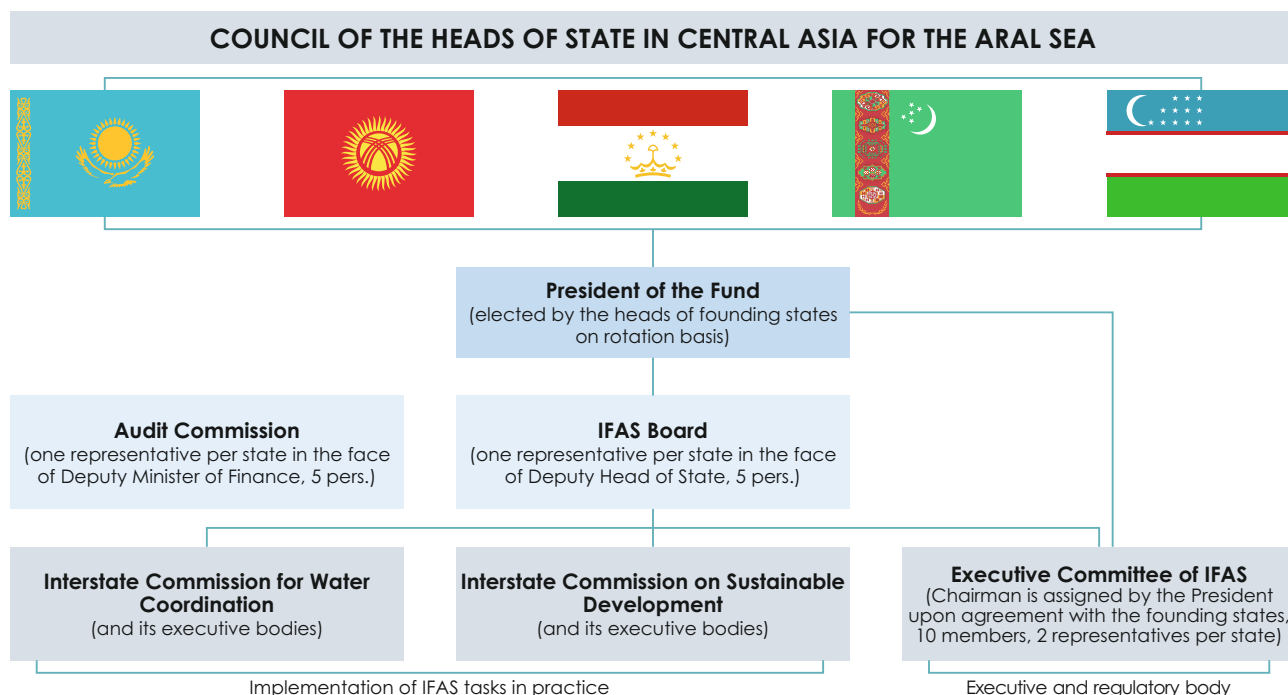
# Section 3

IFAS and Other  
Regional Organizations  
in Central Asia

### 3.1. IFAS: UN Resolution, Summit of the Heads of State, Meeting of the Board



The International Fund for Saving the Aral Sea (IFAS) was established by a decision of the Heads of CA states on the 4th of January 1993 with the aim of developing and funding environmental and applied research projects and programs in order to improve ecological situation in the areas affected by the Aral Sea catastrophe and address the socioeconomic issues in the region. The organizational structure of IFAS is shown below.



The chairmanship in IFAS is rotated among the CA countries every three years. In the period from 2017 to 2019 the Executive Committee of IFAS (EC IFAS) was based in Ashgabat. The mission of Turkemenistan's chairmanship in IFAS

is to further develop and strengthen cooperation among the countries in Central Asia for socio-economic and ecological improvement in the Aral Sea basin.

#### 3.1.1. UN-IFAS Cooperation

On the 12<sup>th</sup> of April, the UN General Assembly at the 82<sup>nd</sup> plenary meeting of the 72<sup>nd</sup> session unanimously adopted Resolution A/RES/72/273 on “Cooperation between the United Nations and the International Fund for Saving the Aral Sea”.<sup>1</sup> In particular, the General Assembly:

“1. notes the need for further improvement of the activities of the International Fund for Saving the Aral Sea to strengthen regional cooperation in such areas as social and

economic development; environmental protection and response to natural disasters; water resources management; adaptation to climate change and mitigation of its consequences; exchange of information; science and innovation; and other related areas;

2. also notes the importance of strengthening cooperation and coordination between the United Nations system and the

<sup>1</sup> Co-authors of the Resolution are Germany, Kazakhstan, Tajikistan, Uzbekistan and other states

International Fund for Saving the Aral Sea, and invites the Secretary-General to hold for that purpose regular consultations with the Chair of the Executive Committee of the International Fund, making use of appropriate inter-agency forums and formats, including consultations between the Secretary-General and the heads of regional organizations;

3. invites the specialized agencies and other organizations, programmes and funds of the United Nations system, as well as international financial institutions, to develop their

cooperation with the International Fund for Saving the Aral."

The full text of the Resolution is available on <https://undocs.org/en/A/RES/72/273>

As part of the chairmanship in IFAS, Turkmenistan also came forward with a proposal to develop a special UN programme for the Aral Sea basin and consider the Aral Sea problem as a specific area of activity of the United Nations. In this context, consultations have been started with the countries in the region.

### 3.1.2. XII Summit of the Heads of IFAS Founder-State

The Summit was held on the 24<sup>th</sup> of August in the city of Turkmenbashi (Turkmenistan). The Heads of IFAS Founder-States, such as the President of Turkmenistan Gurbanguly Berdymukhamedov, the President of Kazakhstan Nursultan Nazarbayev, the President of Tajikistan Emomali Rahmon, and the President of Uzbekistan Shavkat Mirziyoyev took part in the Summit. The President of Kyrgyzstan Sooronbay Jeenbekov participated as a guest of honor.

The Presidents addressed a number of important issues for the improvement of environmental, water-related and socio-economic situation in the Aral Sea basin. They also approved the concept of ASBP-4 development.

#### Messages from Presidents

Extracts of the Presidents' statements during the Summit are provided below. The full text is available on CAWater-Info.net<sup>2</sup>.

**The President of Turkmenistan Gurbanguly Berdymukhamedov** noted that the establishment of IFAS in January 1993 was a logical and timely step mirroring the commitments by the states of the region to tackle the Aral Sea problems. He called the CA countries to support the program on the enhancement of cooperation between UN and IFAS: "Preservation of the Aral Sea cannot be treated as an internal regional problem anymore. Successful solution of this problem requires support from the international community, a new focused and integrated global approach, active and systemic engagement of the UN system in this

work." The need to address the Aral problem as a specific area of UN's activity was underlined: "We have called it a Special UN Programme for the Aral, which would include concrete plans for stabilization and improvement in the Aral Sea basin. We are committed to promote water diplomacy as a new form of multilateral political and diplomatic communication in the field of water."

While stating an urgent need for new legal instruments regulating interactions of the riparian countries of the Aral Sea basin in the field of water management, the President of Turkmenistan reiterated the commitment of Turkmenistan to develop close and constructive cooperation with all the countries in the region.

Turkmenistan was always for addressing water and environmental issues in CA on the basis of recognized norms of international law, taking into account the interests of all countries in the region and involving international organizations, while recognizing that the regional consensus is the only admissible form of effective interstate cooperation. International cooperation on water and the environment should ground on relevant criteria at a national level. These are complementary and integral processes, said the President, while expressing his belief that each state should be fully aware of its role and responsibility.

In fulfilling national sectoral plans, Turkmenistan considers the environmental dimension of SDGs, particularly, optimization of water resource use. Speaking about tremendous experience accumulated in application of

<sup>2</sup> [www.cawater-info.net/library/rus/ifas/summit-ifas-2018.pdf](http://www.cawater-info.net/library/rus/ifas/summit-ifas-2018.pdf)

modern water-conservation technologies in irrigated agriculture and in construction and operation of hydraulic structures, the Head of State noted that successful implementation of large-scale water projects contributes to agricultural development, particularly to ramp-up of grain, cotton and other crop production.

The Drinking Water Program has been launched in Turkmenistan. As part of the Program, new water treatment plans are constructed and put into operation. The work on saline water desalination is also underway. With the completion of the first phase of Turkmen Lake Altyn Asyr, collecting drains diverting drainage and waste water from oases would be connected into the single hydrosystem. In the context of the Aral Sea problem, combatting desertification and improving land conditions are of importance as well.

As a whole, over 25 years of the Fund's activity, construction of a number of hydraulic structures and water-management facilities was launched and nature-conservation, environmental and other related measures were undertaken to solve the Aral Sea problem. The President of Turkmenistan has assured the founder-states of IFAS of the Turkmenistan's commitment to noble goals of saving the Aral Sea, readiness to further joint actions on environmental, socio-economic and humanitarian improvement in the Prearalie and to regional and international cooperation in this field.

**The President of Kazakhstan Nursultan Nazarbayev** stressed the symbolism of holding the Summit in the year of the 25<sup>th</sup> anniversary of creating the International Fund for Saving the Aral Sea and noted that: "IFAS works actively at the international level, thanks to which the Aral region receives substantial assistance from the international community and international financial institutions. Our joint efforts have contributed to the fact that the Fund received an observer status in the UN General Assembly."

The Head of State pointed out that the transboundary water resources of Central Asia are the common property and good of the area's population and stressed that all states actively seek solutions, rational ideas and specific projects are generated. Nursultan Nazarbayev has said that Kazakhstan is also actively working in this direction and invited the delegations of the countries to participate in the Eighth Session of the Meeting of the Parties to the UN Convention on Protection and Use of Transboundary Watercourses and International

Lakes. The Kazakh leader has particularly dwelled on the positive results that became possible due to the joint efforts being undertaken.

Nursultan Nazarbayev focused on the measures proposed by the Kazakh side for the improvement of the institutional and legal framework of IFAS based on the Fund's existing institutions: "The time has come to automate the system of management, allocation, accounting and monitoring of water resources in the Aral Sea basin, including their quality. Under the current circumstances it is important to re-address the issue of establishing the International Water and Energy Consortium of Central Asia. It is necessary to consider the permanent deployment of the Executive Committee of IFAS in one of our countries."

The Head of State has noted that today's meeting is a landmark event of international scale and will give a new impetus to the process of regional cooperation in the use of water resources and ecology. "We have defined new priorities and tasks here. The solution of these issues is of fundamental importance for ensuring the sustainable development and prosperity of Central Asia. Therefore, all this requires further coordinated joint actions from us. For my part, I want to assure you that Kazakhstan has been and remains a consistent and reliable partner in the issues of regional cooperation", Nursultan Nazarbayev said.

**The President of the Kyrgyz Republic Sooronbay Jeenbekov** stated that Kyrgyzstan is supportive of thorough reformation of IFAS, taking into account the interests of all the states in CA: "At present, the Fund is characterized by inconsistent regulatory documents and ineffective structure of executive bodies. It lacks transparency in reporting on attracted funding, fails locate Fund's statutory bodies in a balanced way, and introduce the rotation of heads of these bodies."

The President stressed that activities of the Fund are focused on water for irrigation and ecology, while ignoring other uses, including hydropower. No compensatory mechanism is stipulated for accumulation of water by the upstream countries for irrigation needs of friendly neighboring countries, although such mutually beneficial cooperation is successfully developed in global practices. The water allocation limits in CA do not respond to current realities and need to be revised, taking into account the interests of sustainable development in the region's countries. The Kyrgyz side

stands out for renewal of cooperation within the framework of the 1998 Agreement between the Governments of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan on the use of water-energy resources in the Naryn-Syrdarya basin that makes provisions for a compensatory mechanism of water and energy use.

Sooronbay Jeenbekov proposed to take the following measures.

First, as initially established, the Fund should become an organization for accumulation of finances and investments for priority projects in the area of water use, aimed at socio-economic and sustainable development of all the states in the region.

Second, Kyrgyzstan proposes to dismiss the Interstate Commission for Water Coordination and the Interstate Commission for Sustainable Development and their executive bodies from the organizational composition of IFAS. Instead, consider a possibility of establishing new bodies that would ensure integrated use of water and energy resources and take into account hydropower and sustainable development aspects.

Third, eliminate branches of the IFAS Executive Committee in CA states and establish representation of the CA states at the IFAS Executive Committee instead.

Fourth, liquidate the IFAS Internal Audit Commission. Financial audit of the Fund should be taken by independent auditors.

Fifth, revisit the system of membership fees taking into account the needs and capabilities of the states, and put it on a voluntary basis.

Sixth, while reforming the Fund, take into account experience of such international organizations as UN, SCO and others.

Seventh, make inventory of the international treaty framework and optimize IFAS structure so that to bring them in compliance with the above mentioned proposals.

"I would like to note that given this separate position, the Kyrgyz side does not take part in consideration and approval of the Summit's resolutions, including the Joint Communiqué. I hope that the CA countries will manage to reform IFAS thoroughly as mentioned above in order to improve activities of the Fund and its bodies, while equally considering the interests and basic needs of the CA states. Then, the

Kyrgyz side would be ready to restart full-fledged participation in the Fund", said the Head of State.

**The President of Tajikistan Emomali Rahmon** underlined the wise decision of the CA states to establish IFAS 25 years ago.

"Thanks to joint and coordinated actions within the framework of the Fund, we were able to draw attention of the international community to the problems of the Aral Sea basin, established cooperation with international and regional organizations, financial institutions and donor countries, mobilized resources for projects and programs aimed at mitigating consequences of the Aral crisis ... Today we are faced with a number of common problems and our countries need to collaborate in addressing them", underlined the President. Among the key issues he listed the trends in global population growth and climate change, intensive land development and huge agricultural water losses, industrial and economic development, which together lead to a reduction in the total volume of water resources and increase in water consumption.

The Head of State once again pointed to Tajikistan's initiative regarding the rational use of freshwater resources of mountain Lake Sarez to improve the supply of drinking water to the countries of the region on a long-term period, dwelled in detail on the increases in weather and climate extremes leading to natural disasters causing enormous financial losses and human casualties.

In this context, the President of Tajikistan pointed to the initiative of Tajikistan on International Decade of Action "Water for Sustainable Development", 2018-2028, which aims to contribute to the achieving the UN Sustainable Development Goals for water.

The President pointed to a need for the improvement of institutional and legal frameworks of IFAS in order to adapt them to current realities and the relevance of the construction of small and medium-scale hydropower plants with reservoirs, which contribute to seasonal and multiyear water regulation, especially in low-water years, and reduce the risks of water-related disasters.

He also proposed to:

- continue efforts in reconstruction and modernization of existing hydraulic facilities, first of all, irrigation canals, where most of water is lost;

- promote economic mechanisms of water use and new water-conservation technologies, as well as the system of delivered water accounting;
- maintain strong economic integration for more balanced development of all countries in the region, also by ensuring free flow of goods, services and labor resources.

**The President of Uzbekistan Shavkat Mirziyoyev** underlined that “today's historic summit, which takes place after a nearly ten-year break, will open a new page in the organization's activities and will surely give a powerful boost to the partnership in Central Asia. Today we are reiterating our firm readiness for cooperation.”

The consequences of the drying out of the Aral Sea aggravate, the Aral Sea region is steadily invaded by the desert. As a result, we observe water scarcity, soil degradation, biodiversity loss and severe climate change. “It is now crucial to unite the efforts to overcome the consequences of this catastrophe and improve the social and economic situation in the Aral Sea region, to solve the water and environmental problems of the region, taking into account our common interests,” the Uzbek leader said. “... The International Fund for Saving the Aral Sea is the only regional organization intended to this cause and today it can become an effective mechanism for cooperation between our countries.”

The President spoke about the efforts made by Uzbekistan to overcome consequences of the ecological crisis in the Aral Sea region. In

### 3.1.3. Meetings of the IFAS Board

The regular meeting of the IFAS Board was held on the 30<sup>th</sup> of January in Ashgabad. Preparation to the meeting of the Council of the Heads of IFAS Founder-States and elaboration of ASBP-4 were discussed at the meeting. The need for participation of EC IFAS in meetings and events of ICWC and ICSD was underlined. The Board approved the work plan of EC IFAS for the period of chairmanship of Turkmenistan.

particular, “Uzbekistan put forward an initiative on the establishment of the multi-partnership Trust Fund for Human Security in Prearalie that was supported by UN.” Then, the Head of State has voiced five priority areas of cooperation:

“First. ...I propose considering a declaration of the Aral Sea region (Prearalie) the zone of environmental innovations and technologies... For thorough discussion of our initiative, it is suggested to organize a special conference with the support of UN, WB, ADB, and GEF next year...”

Second. ... we propose establishing a Regional center for production of desert and forage crop seedlings... The Center is to become a unique research and training polygon.

Third. This concerns the preservation of our unique regional fauna... In this context, we propose arranging protected transboundary natural territories in Prearalie...

Fourth. It is necessary to enhance regional cooperation in the field of water conservation, management and use of transboundary water resources ... and hold a relevant regional conference in Uzbekistan... As a result, a Regional program of rational water use in Central Asia should be adopted.

Fifth. ...we consider it important to carry our joint multidisciplinary research, including on the base of scientific-information centers of the Interstate Commission for Water Coordination and the Interstate Commission for Sustainable Development...”

The special meeting of the IFAS Board was held on the 23<sup>rd</sup> of August in Turkmenbashi. The participants signed and approved the texts on the improvement of the Fund's activity and voiced a number of important initiatives and proposals. The Board in its decision approved the Concept of ASBP-4 development and instructed the EC IFAS to start elaboration of the program together with ICWC and ICSD and with the involvement of national experts and international partners.

## JOINT COMMUNIQUE

Following the Summit, a Joint Communiqué was adopted:

"...During negotiations which took place in the atmosphere of friendship and mutual understanding, the Heads of State discussed the issues of cooperation ... and noted the valuable contribution the International Fund for Saving the Aral Sea made in this field over 25 years of its existence..."

The Presidents emphasized the need of further developing and strengthening the relations of equal and mutually beneficial cooperation in terms of the use and protection of transboundary watercourses ...

The Heads of State welcomed the adoption of the UN General Assembly Resolution dated April 12, 2018 "On cooperation between the United Nations and the International Fund for Saving the Aral Sea", the UN General Assembly Resolution dated June 18, 2018 "On Strengthening Regional and International Cooperation to Ensure Peace, Stability and Sustainable Development in the Central Asian Region", as well as the UN General Assembly Resolution dated December 21, 2016 "International Decade for Action: Water for Sustainable Development 2018-2028"...

The Heads of State noted the importance of elaborating "The Aral Sea Basin Programme (ASBP-4)" ensuring that efforts and capacities of the region and the international community shall enable to address the common for the Aral Sea Basin priorities in water management, environmental and socioeconomic issues...

The Heads of States noted the significance of the results of the Dushanbe High-Level Conference on the International Decade for Action: Water for Sustainable Development 2018-2028, the Central Asian International Environmental Forum and the Tashkent International Conference "Joint Actions to Mitigate the Consequences of the Aral Sea Catastrophe: New Approaches, Innovative Solutions, Investments" that allowed promoting cooperation between the countries in the region to achieve the Sustainable Development Goals...

The Presidents encouraged the development of the Regional Environmental Protection Programme for Sustainable Development in Central Asia...

The Heads of States noted the need to consider the possibility of developing a special UN programme for the Aral Sea Basin and instructed the IFAS Executive Committee to hold consultations with the states of the region, UN member states, the United Nations and its institutions...

The Presidents of the countries discussed the possibility of joining to the Framework Convention on Environmental Protection for Sustainable Development in Central Asia dated November 22, 2006...

The Heads of States, taking into account the mutual interests of the Parties, noted the importance of hydropower facilities that are under construction on transboundary watercourses. However the interests of all countries concerned as well as the international principles and standards shall be taken into due account to ensure social and economic development of the Aral Sea Basin area.

The Parties pointed out the importance of promoting automatic operation of hydroposts throughout the entire Syr Darya river basin through fund raising activity based on the agreement reached by the heads of water management organizations of the Founder-States of IFAS.

The Kazakh side proposed to include the possibility of creating a sustainable regional mechanism for the integrated use of water and energy resources in Central Asia.

The Presidents expressed their readiness to further improve the organizational structure and the legal framework of IFAS...

The Heads of State noted the importance of the regional youth movement for the protection of water resources and the environment to ensure the participation of the younger generation in addressing modern challenges and threats...

...the Uzbek side proposed to organize training to develop knowledge and skills of human resources in the field of water resources and environmental protection as well as interdisciplinary research on the basis of the Tashkent Institute of Engineers of Irrigation and Agricultural Mechanization in cooperation with the leading higher educational institutions of the states of the region.

The Parties instructed the IFAS Board to develop the Action Plan to put in practice the agreements reached and ensure control over its implementation...

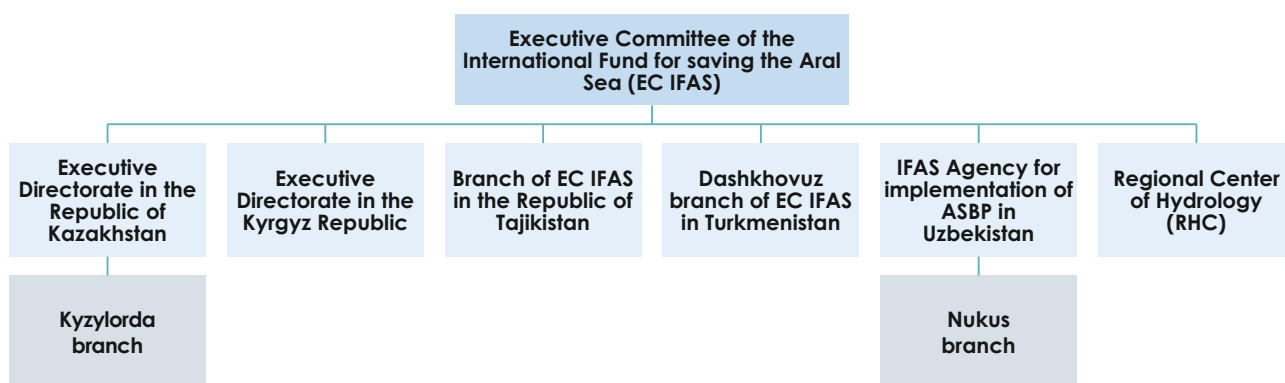
Turkmenbashi, August 24, 2018

The full version of the Joint Communiqué is available on [www.icwc-aral.uz/pdf/79-en.pdf](http://www.icwc-aral.uz/pdf/79-en.pdf)

## 3.2. Executive Committee of IFAS and its National Branches

### 3.2.1. Executive Committee of IFAS

The Executive Committee of the International Fund for Saving the Aral Sea (EC IFAS) was formed following a decision of the Interstate Council of the 13<sup>rd</sup> of July 1993. It serves as a platform for dialogue between the CA countries and the international community.



#### Location of EC IFAS by Country and Year



According to the decision of the President of Turkmenistan G. Berdimukhammedov of June 16, 2017, the EC IFAS was established in Turkmenistan to operate from 2017 to 2019.

#### Activity of EC IFAS in 2018

According to the approved work plan of EC IFAS, the development of ASBP-4 and REAP started.

#### Development of ASBP-4

ASBP-4 is developed in the following directions: integrated use of water resources; environment; socio-economic; improvement of institutional and legal mechanisms. Relevant regional and national work groups were established among the representatives of IFAS bodies, ministries and departments of founder-states, and international experts. The concept for ASBP-4 development was approved. With the assistance of

Turkmen MFA and the support of GIZ TWMCMA Programme, the below meetings were held:

- Coordination meeting of EC IFAS together with international development partners. Following the meeting, cooperation priorities were set and a decision was made to form an Advisory group to improve the effectiveness of support provided by international community to CA (9-10 May, Ashgabad);
- 1<sup>st</sup> Meeting of Regional Work Group on the development of ASBP-4 and the improvement of institutional and legal framework of IFAS (16-17 May, Ashgabad).

#### Revision of REPSD CA

A work meeting was held among EC IFAS, ICSD and representatives of the GIZ Programme for sustainable and climate sensitive land use for



economic development in Central Asia to discuss joint actions for elaboration of the **Regional Environmental Program for Sustainable Development in Central Asia** (REPSD CA) (4 April, Ashgabad).

### Expeditions

To attract the global community to urgent issues in the Aral Sea basin and study the current state of Central Asian natural and water sites in situ, two expeditions were organized in 2018: research expedition (16-23 May, Small Aral) and study-tour across the Aral Sea Basin (10-29 August). These events were organized under the theme "25<sup>th</sup> Anniversary of the International Fund for Saving the Aral Sea" with the financial support from GIZ TWMCA.

### Regional and international cooperation

As part of the UNECE regional project "Dam safety in Central Asia: capacity-building and regional cooperation", EC IFAS held the Regional meeting on cooperation for dam safety in CA, where the region's country delegations, representatives of international organizations and invited Russian experts took part (30-31 May, Almaty).

The side event "Results of the Summit of the Heads of CA State: Practical solutions and prospects for regional water cooperation" was organized jointly with UNECE, ED IFAS in RK, SIC ICWC, CAREC and GIZ TWM CA during the Eight session of the Meeting of the Parties to the Water Convention (11 October, Astana).

As part of cooperation with GIZ, EC IFAS met with managers of GIZ TWM CA Programme (6 February, Ashgabad); GIZ Regional Programme "Ecosystem-based land use and preservation of ecosystems at lower reaches of the Amu Darya" (2 October, Ashgabad); GIZ Regional Programme for sustainable and climate sensitive land use for economic development in Central Asia (Sustain-CA) (5 November, Ashgabad). The major contribution of GIZ to the enhancement of environmental and water cooperation between the CA countries in the face of such challenges as climate change and land degradation was acknowledged and GIZ's interest was expressed in further cooperation with EC IFAS on REPSD CA and ASBP-4 and the institutional improvement of IFAS as the only regional organization that unites the CA countries.

Cooperation is maintained with WB in supporting IFAS' program and project activity aimed at socio-economic improvement in the CA countries (19 September, Ashgabad).

EC IFAS delegation took part in the following events:

- 8<sup>th</sup> World Water Forum (17-23 March, Brazil), as part of which the CA region side-event "Transboundary water cooperation for food, energy and environmental security in Central Asia" was organized (21 March);
- International Conference of the Eastern Europe, Caucasus and Central Asia Network of Water Management Organizations "Water for land reclamation, economic sectors and natural environment in the context of climate change" (7 November, Tashkent).

Based on the EC IFAS - CAREC Memorandum of Cooperation (13 November 2017, Ashgabad), the Project "Central Asian Dialogue on the Use of Multisectoral Financing Opportunities through Enhancing the Water-Energy-Food Nexus" is implemented at the national level in Turkmenistan. The project is financed by EU and implemented by CAREC in partnership with IUCN with the support of EC IFAS. The overall objective of the project is to create a multi-sectoral enabling environment to facilitate sustainable and climate-resilient investments for increased water, energy, food security in Central Asia. As part of the project, the following meetings were organized with participation of EC IFAS:

- first meeting of the inter-agency working group in Turkmenistan to discuss opportunities for investment projects and to launch an intersectoral mechanism for developing project proposals in Turkmenistan (6 March, Ashgabad);
- first meeting of the regional working group on nexus approach (13 March, Tashkent) that finally should produce a portfolio of investment projects that will look at ensuring security of water, energy and food in CA;
- first training workshop on multi-sectoral investments, during which the participants were familiarized with the concept of benefit sharing, the computer-based hydro-economic model – Water, Hydropower and Agriculture Tool for Investment and Financing (WHAT-IF) – for evaluation of investments and financing of water, hydropower and agriculture sectors, the Guidelines for investors and Knowledge hub (8 October, Astana).

Source: EC IFAS

### 3.2.2. Regional Center of Hydrology

The Regional Center of Hydrology (RCH) at EC IFAS was established on the 23<sup>rd</sup> of August 2002 in line with a decision of the IFAS Board to improve the system of hydrometeorological forecasts,

environmental monitoring and data exchange between the national hydrometeorological services (NHMS) in the region.

### 3.2.3. Executive Directorate of IFAS in Kazakhstan

ED IFAS renders assistance in addressing topical issues and coordinating measures to improve water-related, socio-economic and environmental situation in the Kazakh part of the Aral Sea basin.

#### Public outreach

Raising public awareness about the Aral Sea problems is among priorities of ED IFAS. Activities in this direction included:

#### Activity of ED IFAS in Kazakhstan in 2018

##### Development of ASBP-4

Representatives of the Executive Directorate took part in the meeting of the national working group on the development of ASBP-4 and the institutional and legal improvement of IFAS (29 October, Astana). The participants discussed Kazakhstan's proposals on most topical projects in the four key areas of ASBP-4 that are to be submitted for consideration before the second meeting of the regional working group.

##### Expeditions to the Aral Sea

- support was provided to exploratory mission organized by the Kazakh National Geographic Society to South and North Aral ecosystems from 10 to 29 May;
- scientific expedition was organized for researchers from the CA countries along the route from Kyzyl-Orda to the Northern Aral Sea (Small Aral) in 16-23 May. The expedition was financed by the GIZ TWMCA Programme;
- the study-tour was organized for water managers from CA countries and Afghanistan to the Kazakh territory of the Aral-Syrdarya basin (from Shardara reservoir to the Northern Aral Sea) on 20-26 May in cooperation with CAREC as part of the "Smart Waters" Project;
- support was provided to the expedition of young scientists from CA and Afghanistan – "From glaciers to the Aral Sea" - on 1-21 August. The expedition visited key reservoirs and hydro facilities in Central Asia and was organized by the Kazakh-German University (KGU) and CAREC.

- roundtables, environmental actions (planting of trees, voluntary community work) and cultural projects, such as demonstration of documentary about the history of the Aral Sea and celebration for the first time of the Aral Sea Day (26 March, Kyzyl-Orda, Aralsk and Kazalinsk in Kyzylorda province);
- art exhibition for artists of the Aral region in the provincial gallery in Kyzyl-Orda; "Paryz" performance about the fatal history of the Aral Sea and complicated lives of population in the Aral region in the provincial drama theater;
- development of Research and Tourist Center "Aral" designed to coordinate research and develop touristic activity in Prearalie (coast of Kamystybas Lake located 40 km far from the Aral Sea);
- propaganda of the IFAS library, review lectures and orientation sessions in higher educational institutions of Kazakhstan. Publication of information and analytical articles and scientific op-ed pieces, interviews in mass media.

#### Regional and international cooperation

- signing Memorandum of cooperation between ED IFAS in Kazakhstan and the World Centre for Sustainable Development (Rio+) (8<sup>th</sup> World Water Forum, 18-23 March, Brazil);
- International scientific and practical conference "Aral Sea in the stream of modern history" (24 May, Kyzyl-Orda) was organized jointly with GIZ and CAREC to discuss the scientific grounds and practical solutions for topical problems in

the Aral Sea basin, the ideas and proposals resulted from the expedition and demonstration tour;

- support to organization of the Regional meeting on dam safety cooperation in Central Asia (30-31 May, Almaty);
- side-event "Results of the Summit of the Heads of CA State: Practical solutions and prospects for regional water cooperation" was held during the Eight session of the Meeting of the Parties to the Water Convention. Photography exhibition was also organized and information on the results of the "Aral Summit 2018" was disseminated (11 October, Astana);
- ED IFAS took active part in preparation to the XII Summit of the Heads of IFAS Founder-States, in 5<sup>th</sup> Session of the UNESCAP Committee on Environment and Development. Photography exhibition on the Aral Sea was organized as part of the session as well (21-23 November, Bangkok);
- further assistance, in cooperation with GIZ, in gathering meetings of the Aral-Syrdarya Basin Council.

### Capacity building and education

The Executive Directorate assisted in organization of a training workshop of the International Training Center for the Safety of Hydrotechnical Constructions at the Kazakh Water Research Institute (KazNIVH) in Taraz.

Upon initiative of ED IFAS in Kazakhstan and OSCE Office in Astana, the training on "Integration of training modules for vocational training in the water sector" was held at the Kazakh National Agrarian University (2-5 July, Astana).

ED IFAS in Kazakhstan organized enlarged meeting of the Republican Education Board for water professions (8 October, Taraz State University) with the support of the CAREC-USAID "Smart Waters" Project.

Upon request of the Kazakh Ministry of Labor and Social Protection and the National chamber of entrepreneurs "Atameken", occupational standards for agri-industrial sector, including 15 profile sectors, such as "Engineering reclamation and watering of pastures", "Water supply, wastewater disposal and water protection", etc. were developed.

Source: ED IFAS in Kazakhstan, [www.kazaral.org](http://www.kazaral.org)

### 3.2.4. IFAS Agency for Implementation of the Aral Sea Basin and GEF Projects

The IFAS Agency established in 1998 is a working body of IFAS. It has the status of international organization and accreditation at the MFA of Uzbekistan.

**The project activity** is carried out together with the Nukus branch of EC IFAS through the state budget of Uzbekistan as its contribution to IFAS and the donor's grants. In 2018, activities on the following projects were undertaken:

"Construction of small local water bodies in the Amu Darya Delta. Phase II"

- completed construction and mounting work on a coffer-dam from DP0+00 to DP18+51 and reached required flow capacity under the reconstruction of 11 ditches;
- started dredging work under the reconstruction of the Muynak canal;

- drafted contractor agreement for construction work on "Reconstruction of a road dam along Maipost Lake and construction of an overflow structure at the Amu Darya River (Akdarya) together with measures to prevent canyon formation processes in Domalak Lake".

"Protective afforestation in Akhantai site"

- completed arrangement and repair of mechanical protection on 137.5 ha and 208.5 ha, respectively;
- planted seedlings on 422.71 ha by a special equipment and on 133.5 ha by hand;
- additional seedlings planted in furrows on 405.0 ha.

"Protective afforestation in Akkum ridge"

- completed arrangement and repair of mechanical protection on 209.3 ha and 101 ha, respectively;
- planted seedlings on 165.16 ha by hand;
- additional seedlings planted on 122.41 ha.

“Organization of social assistance to population in Preardlie”

- 30 new job places were founded and more than 600 million soums were allocated in form of micro-credits for population.

“National water resources management in Uzbekistan” (SDC)

- initiated assistance in developing the Water Management Concept;
- built capacity of the Information-Analytical Resource Center through target trainings and developed web-site, online water monitoring portal and “Tomchi” mobile application;
- developed, discussed with stakeholders and submitted for expertise of donors a training course on the efficient water use and application of water conservation technologies;
- completed construction of water meters and regulating structures in 6 sites of farmer field schools and laser leveling in 2 sites. Created and made operational 14 farmer field schools; as a result, cotton productivity increased by 20% and that of wheat – by 36%.

### Charity

As part of the “Humanitarian aid to social services and organizations in the Republic of Karakalpakstan”, freezers and conditioners were bought for the Republican oncologic center of the Karakalpakstan Ministry of Health.

### Republican and international events

Support was provided in organization of the international conference “Joint actions to mitigate the consequences of the Aral catastrophe: new approaches, innovative solutions, investments” (6-7 June, Tashkent, Muynak) and the international conference “Water for land reclamation, economic sectors

and natural environment in the context of climate change” (6-7 November, Tashkent).

The IFAS Agency took part in the scientific expedition to the Northern Preardlie (16-23 May) and in the 8th World Water Forum (19-22 March, Brazil). The Agency provided support and assistance in organization of the UNDP’s action “100 marathons, 100 days, 1 reason: Water” in form of a six-day expedition to Preardlie, including 3 days along the 120-km stretch on the dried bed of the Aral Sea from Muynak to Western Sea and along Ustyurt (17-22 November).

### Work completed by request of the Government of Uzbekistan and the republican ministries and departments

Assistance was provided for preparation of documents, policy briefs, notes and reports, including preparation and publication of the book “Water Resources Management in Uzbekistan”, as well as in the fulfillment of Decrees of the Uzbekistan’s Cabinet of Ministers; the Agency worked on citizen appeals to the virtual chamber of the President of Uzbekistan regarding the Aral Sea problem and took part in the Sectoral working group on the establishment of the UN Multi-Partner Human Security Trust Fund for the Aral Sea region (initiated by the President of Uzbekistan Shavkat Mirziyoyev at the 72<sup>nd</sup> UN GA session in 2017).

### Regional and international cooperation

The Agency hosts and assists in organization of joint workshops together with the National Water Partnership of Uzbekistan. Work meetings were held with the team of experts from the Korean International Cooperation Agency (KOICA) Project “ICT-based Integrated Water Resources Management System in Uzbekistan”. More than 30 meetings, negotiations and consultations with representatives of authoritative international organizations, financial institutions and donors were held.

### Media outreach

Materials of the IFAS Agency were published in a number of national and international print media and online magazines: 9 August, the Asahi Shimbun, Japan; 29 August, Turon 24; 17 June, Narodnoye Slovo; anhor.uz, Vesti.uz, ctzn.uz and others. Reports on events held by the Agency were regularly translated on national TV-channels “Uzbekistan 24”, “Yoshlar”, “Uzreport”, etc., as well as on Karakalpakstan and Khorezm TV. Assistance was

rendered to German television ARD<sup>3</sup> in the production of a documentary video piece about the Aral Sea problems that was demonstrated on the German central TV on the 14<sup>th</sup> of June.

**Capacity building and education**

The head of the IFAS Agency delivered a lecture to students of the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME) on the theme “Towards the solution of

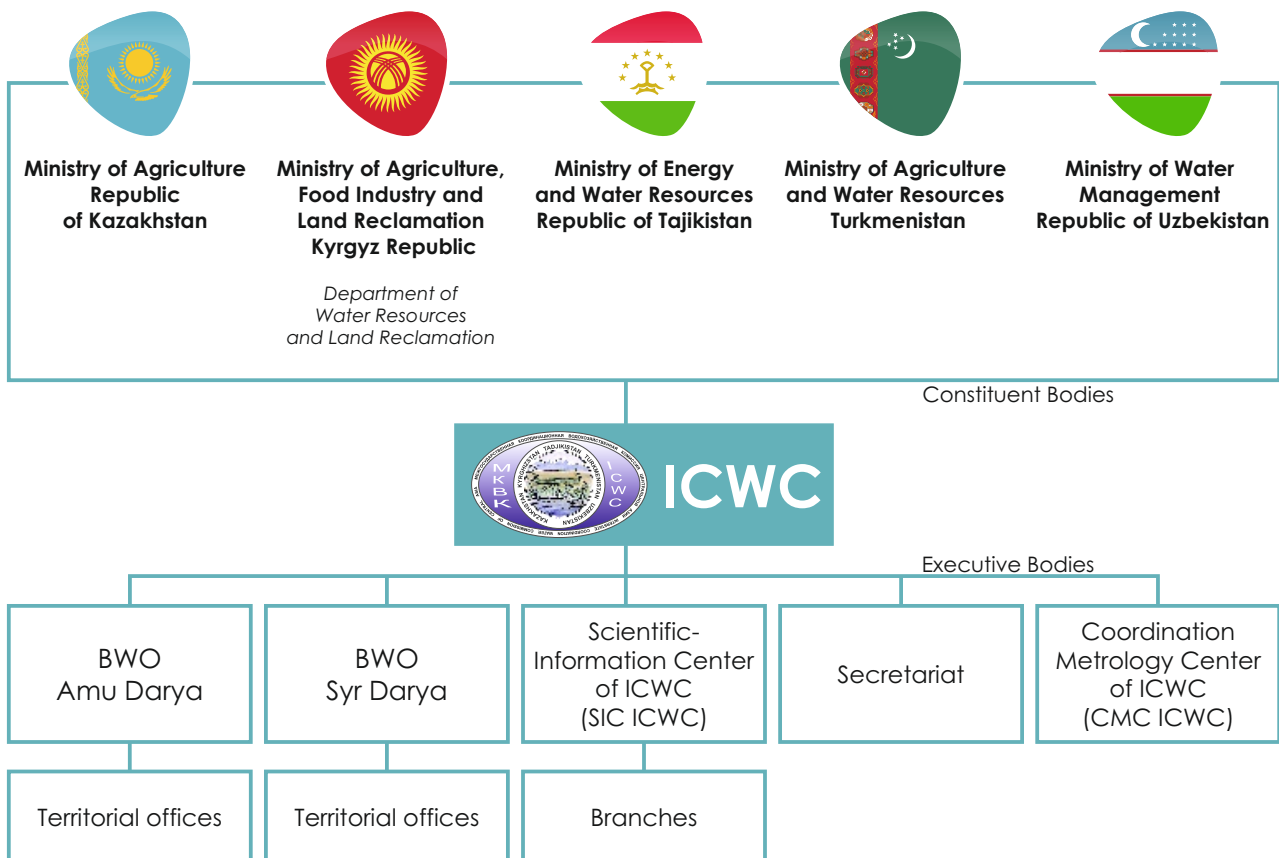
the Aral Sea crisis” (March); as part of the US Cochran Fellowship<sup>4</sup> and California University Program, took part in the study tour on conservation irrigation technologies (8-22 September, California, USA). The Agency received the group of students and lecturers from the Colgate University, USA. During the meeting, the Aral Sea problems and the ways for solution under umbrella of IFAS were presented (25 May).

Source: GEF IFAS Agency; <https://aral.uz/wp/about/>

**3.3. ICWC of Central Asia**



The Interstate Commission for Water Coordination in Central Asia (ICWC) is a regional body of the CA states that deals with the issues related to control, efficient use and protection of water from the interstate sources of the Aral Sea basin and implements jointly developed programs on the basis of cooperation and mutual respect for the parties' interests. The Commission was formed on the 18<sup>th</sup> of February 1992. The organizational set-up of ICWC is shown in the figure below.



<sup>3</sup> “Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland

<sup>4</sup> Program of the US Department of Agriculture – the Cochran Fellowship Program provides training opportunities for senior and mid-level specialists and administrators working in agriculture from the public and private sectors.

### 3.3.1. ICWC Meetings

In 2018, ICWC held three meetings: 73<sup>rd</sup> (3 May, Kyzyl-Orda), 74<sup>th</sup> (22 August, Turkmenbashi), and 75<sup>th</sup> meeting (27 November, Dushanbe). ICWC members from Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan<sup>5</sup>, as well as executive bodies (SIC ICWC, Secretariat of ICWC, BWO Amu Darya and BWO Syr Darya) and invited persons took part in those meetings.

#### Issues addressed

The main items on the agenda of the meetings were the limits of water withdrawals and the operation regimes of reservoir cascades in the Syr Darya and the Amu Darya basins. The Commission considered and approved forecasts and water limits for growing (2018) and non-growing (2018-2019) seasons and summarized their use in growing and non-growing seasons (2017-2018). The parties agreed to finalize and negotiate the approval of the acceptable operation regime of the "Bakhri Tojik" reservoir for the growing season 2018 (73<sup>rd</sup> meeting). It was recommended for BWO Syr Darya together with Kazakh experts to analyze the data from gauging stations and report the results to ICWC members (75<sup>th</sup> meeting).

Concerning the draft Agreement between the Governments of Kazakhstan, Kyrgyzstan,

Tajikistan, Turkmenistan and Uzbekistan on the Information and Analytical Support of Water Management, Use, and Protection in the Aral Sea Basin and the Arrangement of Interstate Exchange of Information, SIC ICWC was entrusted with continuation of the efforts on information collection and dissemination under its mandate and in line with existing agreements. The parties also took into account the fact that the Tajik side refrained from work under the Draft Agreement until its own national information system of water resources was developed (74<sup>th</sup> meeting).

As to the "Implementation Plan on strengthening ICWC activities in key directions"<sup>6</sup>, given the lack of financial support from donors, the ICWC members decided to fulfill the plan in 2018-2019 by subordinate agencies and executive bodies of ICWC at their own expense (73<sup>rd</sup> meeting). Active efforts of ICWC on the development of ASBP-4 (75<sup>th</sup> meeting) and appeal to EC IFAS Chairman on inclusion of representatives of all ICWC executive bodies into RWG for selection of project proposals were supported (74<sup>th</sup> meeting). The ICWC members deemed it appropriate to invite the Chairman of EC IFAS to ICWC meetings.

### 3.3.2. ICWC Working Groups

According to a decision of the 73<sup>rd</sup> meeting of ICWC, the Kazakh Ministry of Agriculture, BWO Amu Darya, BWO Syr Darya and SIC ICWC have set the list of actions to be done as part of the "2018-2019 Work plan of ICWC working groups" and updated the membership in the working groups.

In 2018, based on commitments made under the Plan, SIC ICWC did work in the following directions.

#### "Water conservation":

- Developed key elements for revision of water-allowance zoning, given the current climatic, soil and hydrogeological conditions. Prepared a project proposal on "Correction of water-allowance zoning (boundaries of water-allowance

zones and revision of crop irrigation schedules";

- Analyzed forecasts of potential reduction of water withdrawal by two scenarios: i) business as usual (BAU); ii) decrease in resources (due to climate change and increased diversion of water by Afghanistan) approximately by 8 km<sup>3</sup> along the Amu Darya and by 2 km<sup>3</sup> along the Syr Darya;

#### "Implementation of integrated water resource management and adaptation to climate change":

- In 2018, additional 50 IWRM practices were added to the database and interactive map of best practices on water, land and energy use and

<sup>5</sup> Since the 68<sup>th</sup> meeting, representatives of the Kyrgyz Republic have not taken part in ICWC activity

<sup>6</sup> Approved and recommended at 63<sup>rd</sup> ICWC meeting (18-19 April 2014, Tashkent)

environmental protection in Central Asia<sup>7</sup>, including 12 practices for Kazakhstan; 12 practices for Kyrgyzstan; 7 practices for Tajikistan; 6 practices for Turkmenistan; and 13 practices for Uzbekistan (SIC administered population of the database);

- Prepared proposals on further development of basin councils at BWO Syr Darya and BWO Amu Darya and their territorial branches and the draft model By-laws of BWO Water Council.

#### “Improvement of water accounting quality and accuracy”:

- Prepared project proposal resume “Establishment of zonal metrological centers in transboundary basins of Syr Darya and Amu Darya” for its inclusion into ASBP-4;
- Jointly with BWO Syr Darya and other concerned organizations, prepared a project proposal “Automation of gauging stations throughout the Syr Darya River basin”. Importance of this subject was

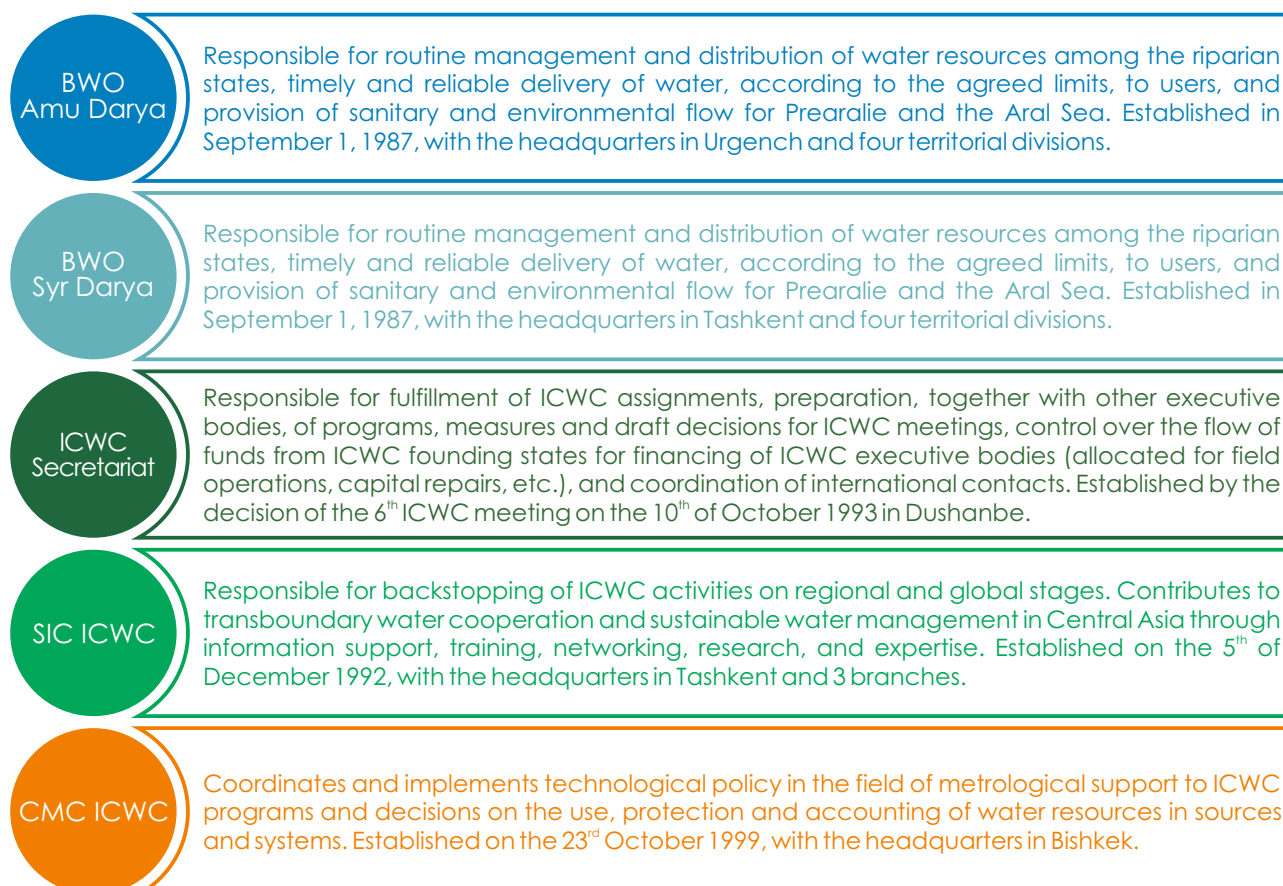
noted in the Joint Communiqué of the Summit held in Turkmenbashi.

#### “Building capacity of regional and national organizations”:

- Prepared training course on R-programming “Opportunities of utilizing remote sensing for applied problems”;
- Prepared a project proposal “Building capacities for the improvement of vocational water training system in CA countries” for its inclusion into ASBP-4. The project provides for update of the current courses and development of new courses and modern methods of training, e.g. e-learning;
- Worked on organization of e-learning courses on topical water management issues for CA countries;
- Developed the Training Center web-site, which is to include information on all capacity building events in the water sphere in CA countries.

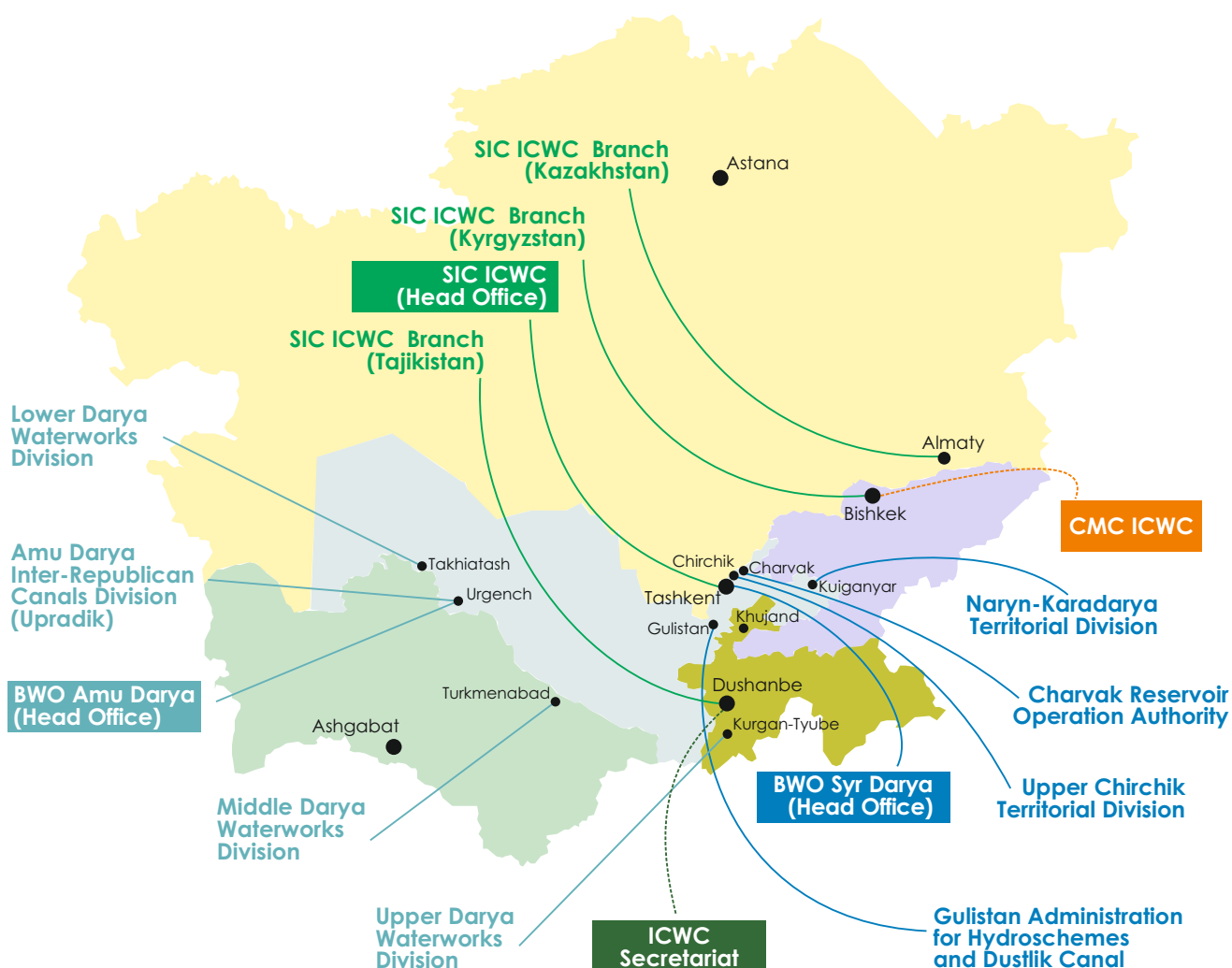
### 3.3.3. Activities of ICWC Executive Bodies in 2018

#### Executive bodies of ICWC



<sup>7</sup> Interactive map was developed by SIC ICWC upon request of CAREC as part of the Project “Promotion of dialogue for conflict prevention related to water nexus in Central Asia (CAWECOOP)” financed by EU.

### Location of Executive Bodies



### BWO Amu Darya

In 2018, BWO Amu Darya continued working on interstate water allocation and real-time control over observance of the established water withdrawal limits, on modernization and operation of waterworks facilities that are under responsibility of BWO, and prepared materials for and participated in three ICWC meetings and 11 meetings of water managers of the river's lower reaches on water allocation issues.

#### Regional and international cooperation

In the course of 2018, BWO Amu Darya maintained cooperation with EC IFAS, national water agencies of Turkmenistan and Uzbekistan, National Hydrometeorological Services, SIC ICWC, CAREC, and GIZ. Representatives of BWO Amu Darya and its territorial branches took part in regional programs, conferences, and training workshops, including:

- final workshop “Transboundary Water Management Adaptation in the Amu Darya River Basin to Climate Change and Future Challenges: Tools and Recommendations” as part of the USAID-PEER research project “Transboundary water management adaptation to climate change uncertainties in the Amu Darya River basin” (31.01-01.02.18, Tashkent);
- training workshop as part of the Nexus Project on preparation of project proposals for their inclusion into ASBP-4 (Urganj);

With the support of GIZ, training was organized for BWO's staff on how to handle the web-site of BWO Amu Darya, and the hardware and software for evaluation of snow cover in the catchment area of the Amu Darya River was provided.

Source: BWO Amu Darya



## BWO Syr Darya

BWO Syr Darya is responsible for diversion of water from the Naryn, Karadarya, Syr Darya and Chirchik rivers and its distribution between state-water users through hydroschemes, intake and distribution structures and canals. For efficient use of water resources and regular and failure-free supply of water to users BWO Syr Darya ensures maintenance of hydraulic structures, canals, gauging stations, communications, buildings and other sites that are on the books of BWO's territorial branches.

### Activities undertaken in 2018

- preventive maintenance to avoid faults of the automated control and monitoring system at large and important structures, such as Uchkurgan and Upper Chirchik hydroschemes; annual scheduled checking of gauging stations; current repairs of hydraulic structures at Parkent canal and Big Keles main canal;
- repair and replacement of gates at: check structures of the Dustlik canal and South Golodnostepskiy canal (SGC) and escape structure of the Big Fergana canal;
- current repairs of gates at headwork of SGC and on 58 km of Dustlik canal and the K-96 outlet of the same canal;
- power-aid cleaning and rehabilitation of slope-sides of Dustlik canal, BFC and the dam of feeder canal;
- reconstruction and modernization of Kuyganiar hydroscheme<sup>8</sup>: work was continued on rehabilitation of discharge carrier and reconstruction of tail-water site;
- work completed on design specifications and estimations of the following structures: reconstruction of tail-water of the headwork of North Fergana canal; reconstruction and modernization of mechanical part of Kuyganiar hydroscheme at the Karadarya River; reconstruction and modernization of the SGC headwork and the Dustlik canal's headwork.

Source: BWO Syr Darya

## ICWC Secretariat

In 2018, the ICWC Secretariat jointly with other executive bodies took part in organization of three meetings of ICWC and in the fulfillment of ICWC decisions and instructions. Jointly with agencies of the Tajik ministries of energy and water resources and foreign affairs and international financing organizations, the Secretariat was involved in preparation and organization of the International High-Level Conference on International Decade for Action "Water for Sustainable Development, 2018-2028", which finally adopted the Declaration "Promoting Action and Policy Dialogue" (19-22 June, Dushanbe).

The ICWC Secretariat organized the roundtable on "Achievement of sustainable development goals and gender mainstreaming challenges of water management and sanitation in Tajikistan". Representatives of the Tajik Ministry of Energy and Water Resources, Land Reclamation and Irrigation Agency, Committee for Nature Protection and the Committee for Women and Family Affairs took part in this event (28 August, Dushanbe).

Source: ICWC Secretariat

## Scientific-Information Center of ICWC

### Organizational and technical activity

SIC together with other bodies of ICWC was involved in preparation and organization of three ICWC meetings and in fulfillment of ICWC decisions and orders. SIC continued working on the "Implementation Plan on strengthening ICWC activities in key directions". The Center took part in preparation of the Summit of the Heads of IFAS Founder-State, implementation of the adopted Joint Communiqué and fulfillment of the CA country presidents' initiatives. Technical, information and expert assistance was rendered to national and regional organizations through timely provision of relevant materials on their request.

### Information and analytical activity

The regional database was populated with information over 2016-2017 (on all provinces of Kazakhstan and Uzbekistan). The databases on the Amu Darya and the Syr Darya basins were updated on ten-day basis (jointly with BWO

<sup>8</sup> Kuyganiar hydroscheme was built in 1939. The capacity is 1,210 m<sup>3</sup>/s. The hydroscheme was damaged as a result of strong floods in 2010.

Amu Darya and BWO Syr Darya). Analytical reports on water management situation in the region were prepared for growing and non-growing seasons.

The reports on water management situation in river basins provided ten-day and monthly data on operation regimes of large reservoir hydroschemes, the data on river channel balances and reservoir water balances (including evaluation of balance discrepancies and water losses), on water supply to Prearalie and the Aral Sea, as well as the information on deviation of actual river water withdrawals from the established water withdrawal limits (to assess water deficit or over-use in the countries and uniformity of water distribution in time and space). The analytical reports are uploaded on the CAWater-Info portal and submitted to ICWC meetings so that managers of water agencies can take appropriate measures.

SIC continued working on forecast assessments of water availability in the Syr Darya and the Amu Darya basins based on the computer-aided retrieval of analog-years. The assessment was made by the beginning of the growing season and then updated (adjustment proceeding from the actual water-management situation) against the inflow to upstream reservoirs in the Syr Darya basin (Toktogul, Andizhan, and Charvak reservoirs) and the Amu Darya runoff at Kelif section (upstream of intake to Garagumdatya).

During the year, based on real-time data from the BWO Amu Darya and BWO Syr Darya, river channel balances were calculated and ten-day analysis of water management situation was made in e-format, including short explanatory notes.

### Information and publications

In 2018, the Regional Information System on Water and Land Use in ASB (CAWater-IS), analytical tools and models, data and knowledge bases, regional web-resources, including the CA water and environment knowledge portal (CAWater-Info), ICWC, SIC ICWC, and EECCA NWO web-sites, as well as the ASB management model (ASBmm) and the WUEMOCA tool were further developed.

16 publications on water management and law were issued and disseminated in e-format (see "[Publications in 2018](#)"). The knowledge base



"Water in Central Asia" was populated with 775 new entries, such as monographs, research papers, manuals, references and other publications ([www.cawater-info.net/bk/](http://www.cawater-info.net/bk/)). The Atlas of water-management and environmental organizations in the EECCA countries was updated.

SIC ICWC publishes a weekly bulletin "Water management, irrigation and ecology in Central Asia". The bulletin contains water, ecology, and energy highlights from Central Asia and all over the world. Ten-day analysis of water-management situation in the Syr Darya and the Amu Darya, as well as information on the past and future conferences, seminars, exhibitions and new publications are provided as well. The bulletin is disseminated every week among ICWC members and all concerned institutions. The bulletins are available on:

[www.cawater-info.net/informationexchange/e-bulletins.htm](http://www.cawater-info.net/informationexchange/e-bulletins.htm).

### Research and expertise

The following projects and work were undertaken by SIC in 2018:

Completed the research project "Transboundary water management adaptation to climate change uncertainties in the Amu Darya River basin".<sup>9</sup> Published the book "Future of the Amu Darya basin in the context of climate change", with the project findings: analysis of the current interstate water management system and future development in the Amu Darya basin up to 2050, including climate and its impact on water supply and demand; proposals for flow regulation by reservoir hydroschemes; measures to improve efficiency and productivity of water, land, and hydro-energy; proposals for improvement of the legal framework of cooperation. The project results were presented and discussed with stakeholders at the final workshop "Transboundary Water Management Adaptation in the Amu Darya River Basin to Climate Change and

<sup>9</sup> As part of the Partnerships for Enhanced Engagement in Research (PEER)

Future Challenges: Tools and Recommendations” (January 31 - February 1, 2018, Tashkent).

Continued work on the project “Support to the Network of Russian speaking water management organizations” with the support of UNECE. SIC organized the International EECCA NWO Conference “Water for Land Reclamation, Economic Sectors and Natural Environment in the context of Climate Change” (6-7 November, Tashkent). Collections of scientific papers (volumes 1 and 2) were issued, the Network’s web-site and “Atlas of water-management and environmental organizations” were updated; the knowledge base of the CAWater-Info portal as one of the sources of knowledge of EECCA NWO was populated.

Work continued on the CAWA (Regional Research Network “Water in Central Asia”) Project. In particular, monthly data on irrigated land and actual irrigation water intake was collected at district level of ASB (except for Turkmenistan) over 2000-2017, aggregated to province level and submitted to developers of WUEMoCA for algorithm calibrations; validation of WUEMoCA data against statistics was made; the yield forecast model was adapted for the Fergana Valley conditions and validity of RS-data was checked.

SIC contributed largely to WUEMoCA through the development of indicators implemented via the tool’s interface for the whole territory of Central Asia from 2000 to 2018. This allowed getting important information on water use efficiency, including evaluation of water losses and water availability for crops, besides the information on land use. Another important contribution is the development of the User Polygon Tool, which approximates WUEMoCA to user’s needs (basin and other water-management organizations) as much as possible – drawing of user-defined areas of interest, inputting of water data (e.g. on water intake at area boundaries) and getting information from the tool on how to use water efficiently within the defined area (what are water losses), what is water availability of irrigated land as compared to crop water requirements (based on climate data processing), where water is not enough or abundant, what is productivity of irrigated land.

As part of the UNRCCA Project “Early Warning Bulletin”, four e-bulletins were issued. The bulletins contain information on the actual situation in the Syr Darya and the Amu Darya basins for current month and the forecast for the next month. The Bulletin is a resource, which

provides all the Central Asian states and their international partners with improved capacity to monitor regularly the status of transboundary rivers and warn early of potential issues that require attention. It provides information on daily operation regimes of large hydropower stations in the above basins, the data on energy generation and idle discharges from the stations (if exist) and energy losses. The data on daily river channel balances by river reach (including water losses, amount of regulated flow, etc.), on reservoir water balances, and water supply to the Northern Aral Sea and the Large Aral Sea, as well as on dynamics of water volume, level, and area in the Aral Sea can be found in the Bulletin.

Prepared Water Yearbook: Central Asia and around the Globe, which highlighted key developments and events on water-related subjects in Central Asia and globally over 2017. With the support of UNRCCA, the Yearbook was also translated into English and published in English and Russian.

Started work on “Evaluation of farming activities supported by climate sub-loans in Tajikistan and Uzbekistan” as part of the contract with CAREC under the “Climate Adaptation and Mitigation Program for the Aral Sea Basin” (CAMP4ASB). Over the past period, an evaluation methodology of farming activities supported by sub-loans was developed in terms of their impact on adaptation to climate change and/or carbon footprint. Field visits to pilot areas in Tajikistan and Uzbekistan were arranged and information on the selected sub-projects was summarized. The first version on the report on sub-projects, evaluation results and lessons learnt was drafted and preliminary recommendations were made.

#### **ASBP-4 development**

SIC’s experts submitted to ICWC members summaries of 20 project proposals for ASBP-4, including 19 regional projects. Suggestions to conduct an inventory of uncompleted and unimplemented projects under ASBP-3 and the ways to organize work for elaborating ASBP-4 were formulated and submitted to EC IFAS. Consultations with EC IFAS were continued on re-launching of work with ADB on “Water Management in the Amu Darya basin in the face of climate change and other future challenges”. Detailed analysis of institutional and legal framework of cooperation was completed and proposals for improvement were put forward.

## Capacity building and training

In 2018, SIC's experts took part in various training events:

- jointly with the Ministry of Water Resources of Uzbekistan and TIIAME, prepared curricula, lectures and held training for personnel of hydrological and land reclamation field offices, managers of pump station and energy authorities, reservoir management authorities, central administration of the Ministry of Water Resources, managers of district irrigation divisions, and heads of basin irrigation system authorities (October-December, TIIAME);
- one-day training as part of the EU Program "Sustainable management of water resources in rural areas in Uzbekistan: Technical capacity building". The training was held on the theme "Development of water user associations" and addressed legal, institutional, technical and financial aspects of WUA functioning (August in Khorezm, Kashkadarya, Surkhandarya, Fergana, Samarkand, and Syrdarya provinces);
- lectures delivered on international water law at the Pan-Asia Workshop on Water Governance: international water law and multi-stakeholder processes (13-15 December, Kunming, China).

SIC's experts:

- finalized the training course in R-programming "Opportunities of utilizing remote sensing for applied problems", including lectures and exercises on: upload of RS-data; basic functions of R; spectral analysis of RS-data; regression analysis of spectral and bio-physical data; linear modeling and classification;
- upon UNESCO's request, developed the section "International water law: a regional Central Asian perspective" to the training course "Hydrodiplomacy, legal and institutional aspects of water resources governance: from the international to the domestic perspective";
- developed web-site of the ICWC Training Center, which contains information on training activity undertaken under umbrella of ICWC, including materials of training courses, training reports, publi-

cations of the Training Center, the data on partners in CA countries and other relevant information.

SIC's experts published 23 papers in different publications. SIC staff improved its qualifications through national and regional courses, workshops, and trainings.

## International cooperation

SIC kept maintaining cooperation with embassies, international financing institutions and organizations (WB, ADB, UNESCO, UNDP, OSCE, SDC) and took part in activities of UNECE, World Water Council (WWC), ICID, GWP, INBO and IWRA.

The Memorandum of Cooperation was signed between the International Water Assessment Centre (IWAC) and SIC (30 May, Geneva, Switzerland). The Memo envisages cooperation on research, methodological and technical support to the CA countries in the field of protection and use of transboundary watercourses.

SIC met with the Acting Director of UNESCO Office in Uzbekistan, senior consultant of the Water Partner Foundation (the Netherlands), Swiss Regional Water Advisor in Kazakhstan, representatives of WB, energy mission of EBRD, Head of the UN Regional Centre for Preventive Diplomacy for Central Asia, Director of the ADB's Environment, Natural Resources, and Agriculture Division, and the Ambassador of France in Uzbekistan. Different aspects of cooperation were discussed during the meetings, including water governance and strategic planning in CA.

SIC took an active part in the work of ICWC working groups, preparation of discussion notes, reports, and presentations and in organization of international events and publication of materials.

SIC continued disseminating the Russian versions of materials of WWC and INBO in the EECCA countries (INBO Newsletter, International News of IOWater); maintained the web-site of the EECCA NWO and Russian versions of WWC, INBO, and IOWater.

The Center also keeps playing a coordinating role in the activity of ICID working group for the countries under socio-economic transformation.

Source: SIC ICWC

### 3.3.4. Visit of ICWC Delegation to Rogun HPP

On 28 November 2018, upon the invitation of the Tajik side ICWC delegation visited the Rogun HPP, which is under construction. Mr. Anvar Rakhmonov, chief operations officer, presented the constructed facility and provided detailed information on key structures of the HPP.

Currently, 67 companies are engaged with construction and assembly work, including contractors from Russia, Iran, Ukraine, China, and Germany. Mr. Rakhmonov underlined that all activities are based on the design of Rogun HPP developed by the Central Asian branch of the Hidroproekt Institute (Tashkent) in the Soviet period.

The World Bank also highly assessed that design. By present, 52 km of the tunnel have been constructed out of planned 74 km. The cost of completed work, including that done during the Soviet period, is \$3.2 billion. Additionally \$4.5 billion will be required to end the construction.

**Headwater.** On the 26<sup>th</sup> of November 2016, the Vakhsh River was dammed. The dam is erected out of 42 million tons of filling material, and the accumulated water volume is 254 million m<sup>3</sup>. Water is retained by a temporary dam. The construction is planned to be completed by 2027. The design normal reservoir water level is to be achieved by 2032.

**Salt dome.** The delegation asked about measures taken to protect the salt dome at the bottom of the dam. It is well-known that salt formation is linked to the Ionaksh fault, which passes under the upstream fill of the dam. Mr. Rakhmonov explained that the salt dome will be blocked by bored piles and sheet piling. It is also planned to build an additional tunnel for permanent monitoring.

**Conveyer system.** For filling of the dam and transportation of construction materials to the site, a 9 km conveyer system is constructed. Its capacity is to be 3,000 tons per hour. At present, 5 km of the system has been completed.

**Indoor switchgears.** Indoor switchgears with gas insulation designed for all six aggregates of Rogun HPP were put into operation on the 16 of November 2018. 220 kV and 500 kV gas insulated switchgears were installed. 220 kV switchgears will be used for internal needs of the enterprise. Electricity will be supplied from the distribution hub to the single energy system



On the right, headwater created by temporary dam and the construction site, which will be flooded in the future



Part of the conveyer system for construction of the Roghun HPP



through six 500 kV transmission lines. On the 16<sup>th</sup> of November, a 500 kV Dushanbe-Rogun transmission line was put into operation. Installation of the equipment bought at \$50 million, including from the German Siemens, was started in February and completed by November 2018.

**Escape.** The initial project design planned escape for a flood flow of 5,400 m<sup>3</sup>/s; now the maximum discharge of spillway tunnels is increased to 7,800 m<sup>3</sup>/s in total.

**Turbine hall.** The first aggregate (No.6) of the Rogun HPP was launched on the 16<sup>th</sup> of November 2018. Now, it operates on temporary blade wheel and generates 100-115 MW. Aggregate No.5 is planned to be launched in April 2019. These two aggregates will operate at lower head. Six aggregates, 600 MW each, are to be installed at the hydropower plant. All six aggregates are to be commissioned in December 2024.

*Detailed:*  
<http://sic.icwc-aral.uz/releases/eng/337.htm>

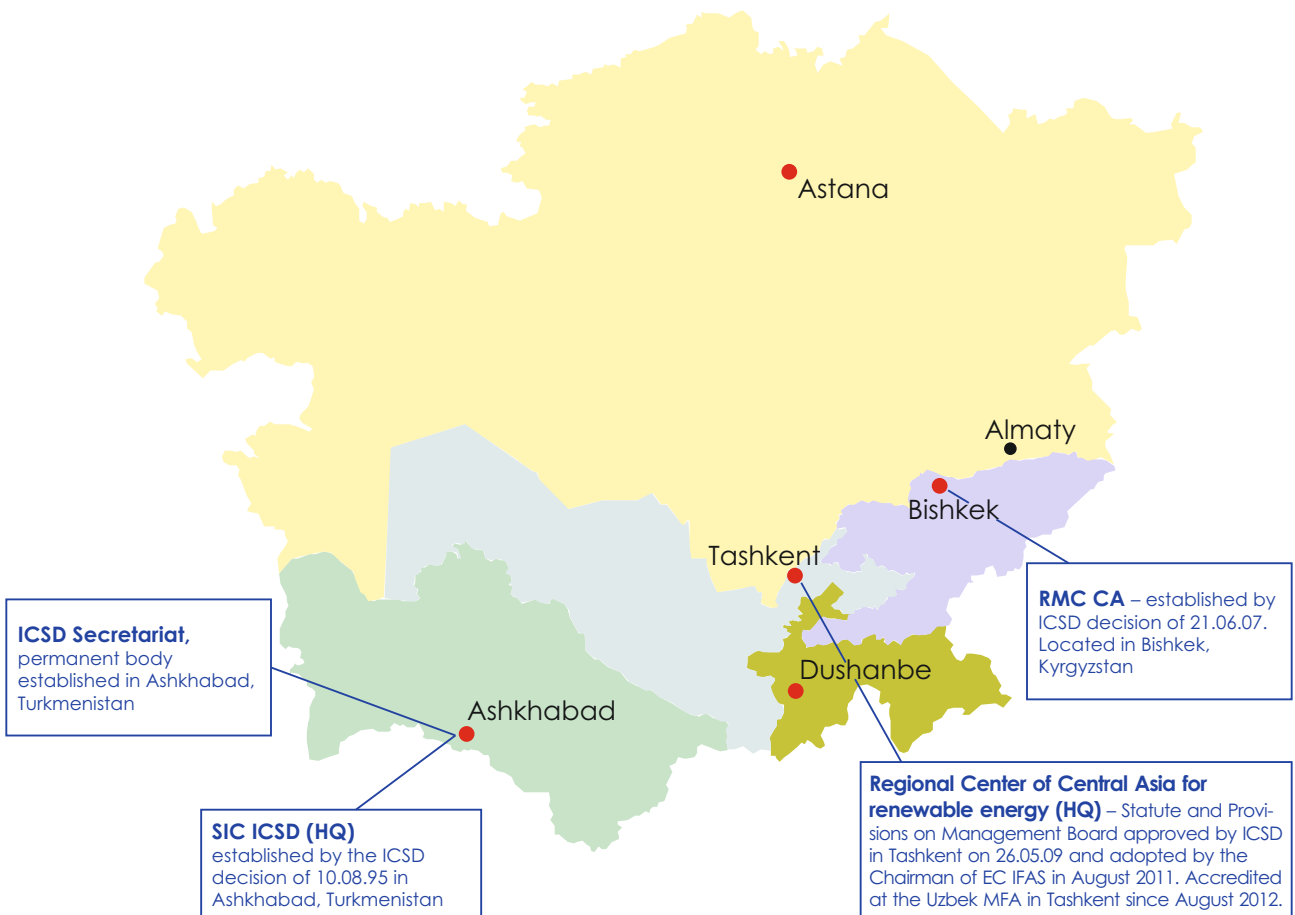
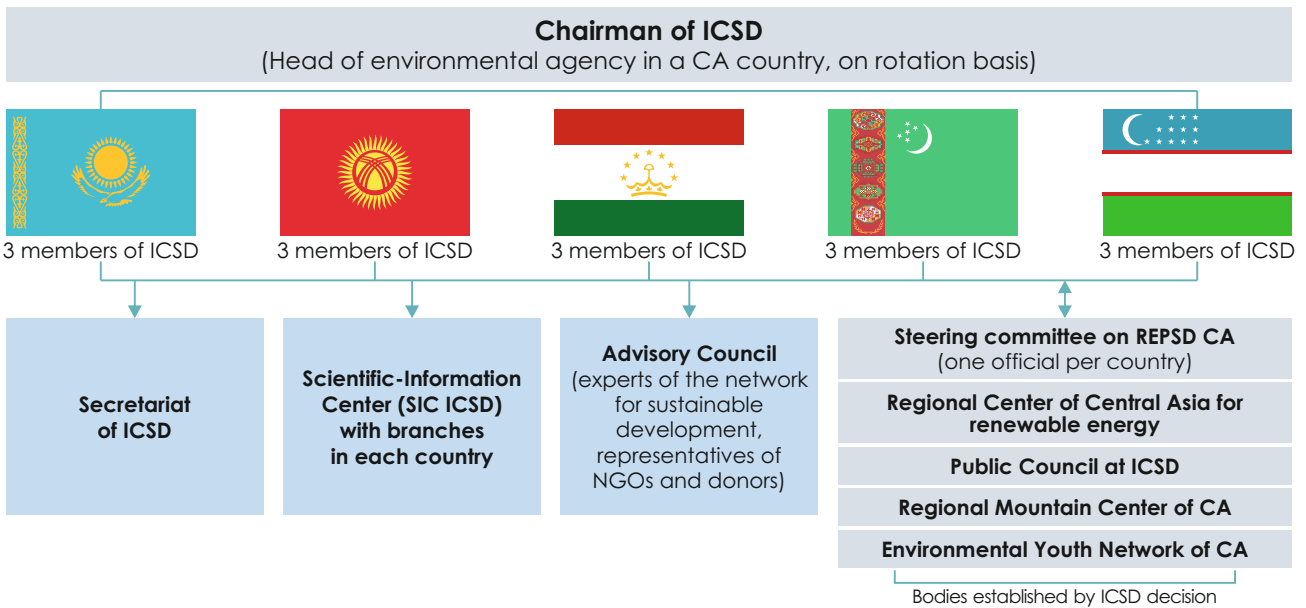


Part of the conveyer system for construction of the Roghun HPP

### 3.4. ICSD of Central Asia



The Interstate Commission on Sustainable Development (ICSD) was established by the decision of the Interstate Council for the Aral Sea Basin in 1993. It is entrusted with the mission of coordination and management of regional cooperation in the field of environmental protection and sustainable development of the CA states. The organizational setup of ICSD and location of its executive bodies are shown in the figures below.



## Activities of the ICSD's Executive Bodies in 2018

The work was continued on further enhancement of the Commission's activities, solution of regional environmental issues, updating of the Regional Environmental Program for Sustainable Development in Central Asia (REPSD CA) for the five CA countries, and development of ASBP-4.

### Updating of REPSD CA

Active efforts were taken to develop the REPSD CA:

- Within the framework of the [Central Asia Climate Change Conference 2018](#), a session was held to discuss a draft Framework guidelines for the promotion of country processes on REPSD CA and establish Regional Working Groups (24-25 January, Almaty);
- Requests were sent to the CA countries to establish a National Working Group, including the Terms of Reference for in-country consultations (March);
- The first round of national consultations in Turkmenistan, Kazakhstan and Tajikistan (April-May) and the Coordination Meeting of the Second Central Asian International Environmental Forum (5-8 June, Tashkent) were held;
- A working meeting of the heads of environmental agencies in the Central Asian countries was organized to discuss topical issues within the framework of IFAS-ICSD (August 22, Turkmenbashi) as well as a Coordination Meeting of the Regional Group members, who agreed on the REPSD CA plan for 2019 and the tentative schedule of working meetings (December 10-11, Almaty).

### Development of ASBP-4

Two project proposals on institutional and environmental directions of ASBP-4 were drafted and submitted to the National Working Group members in Turkmenistan for consideration and inclusion into the Program (December).

### United Nations Framework Convention on Climate Change (UNFCCC)

A representative of ICSD attended the 24<sup>th</sup> Session of the Conference of the Parties

(COP24) to UNFCCC ([2-14 December, Katowice, Poland](#)), the 48<sup>th</sup> session of the UNFCCC Subsidiary Bodies and the sessions of the Ad Hoc Working Group on the Paris Agreement ([30 April-9 May, Bonn, Germany](#); [4-9 September, Bangkok, Thailand](#)).

### Regional and International Cooperation

ICSD representatives actively participated in regional and international events: [Regional Forum on Sustainable Development for the UNECE Region](#) (1-2 March, Geneva); [Regional Meeting on strengthening intersectoral cooperation on water resources management and fostering the role of water to promote sustainable development and the implementation of Agenda 2030](#) (12-13 July, Almaty); 7<sup>th</sup> and 8<sup>th</sup> Meetings of the EU-Central Asia Working Group on Environment and Climate Change ([6-7 February](#), Brussels, Belgium; [7-8 June](#), Tashkent, Uzbekistan); activities under the [Central Asia Nexus Dialogue Project: Fostering Water, Energy and Food Security Nexus Dialogue and Multi-Sector Investment](#) (Nexus) (7-9 September, Almaty; 5-6 December, Ashgabat); 22<sup>nd</sup> Session of the Working Group (WG) on Water, Energy and Environment of the United Nations Special Program for the Economies of Central Asia (SPECA) ([9 October](#), Astana), etc.

### Capacity Building and Education

ICSD experts participated in:

- Webinars for water managers of Turkmenistan and academic staff of TIAME on the "Use of collector-drainage water in irrigated agriculture" (20 November) and "Water-saving technologies and effective methods of irrigation water use applicable to the Uzbek and Turkmen conditions" (December 27) organized at the premises of the CAREC information and training class at the National Institute of Deserts, Flora and Fauna of Turkmenistan.
- A series of workshops on climate change and climate forecasts (September, Ashgabat); International Workshop "Successes achieved in environmental protection and international cooperation in the course of the year entitled "Turkmenistan – in the heart of the Great Silk Road" (6 December, Ashgabat);
- Lectures delivered by Professor of International Law S. Vinogradov at the Academy of State Service at the President of Turkmenistan (20 December, Ashgabat).

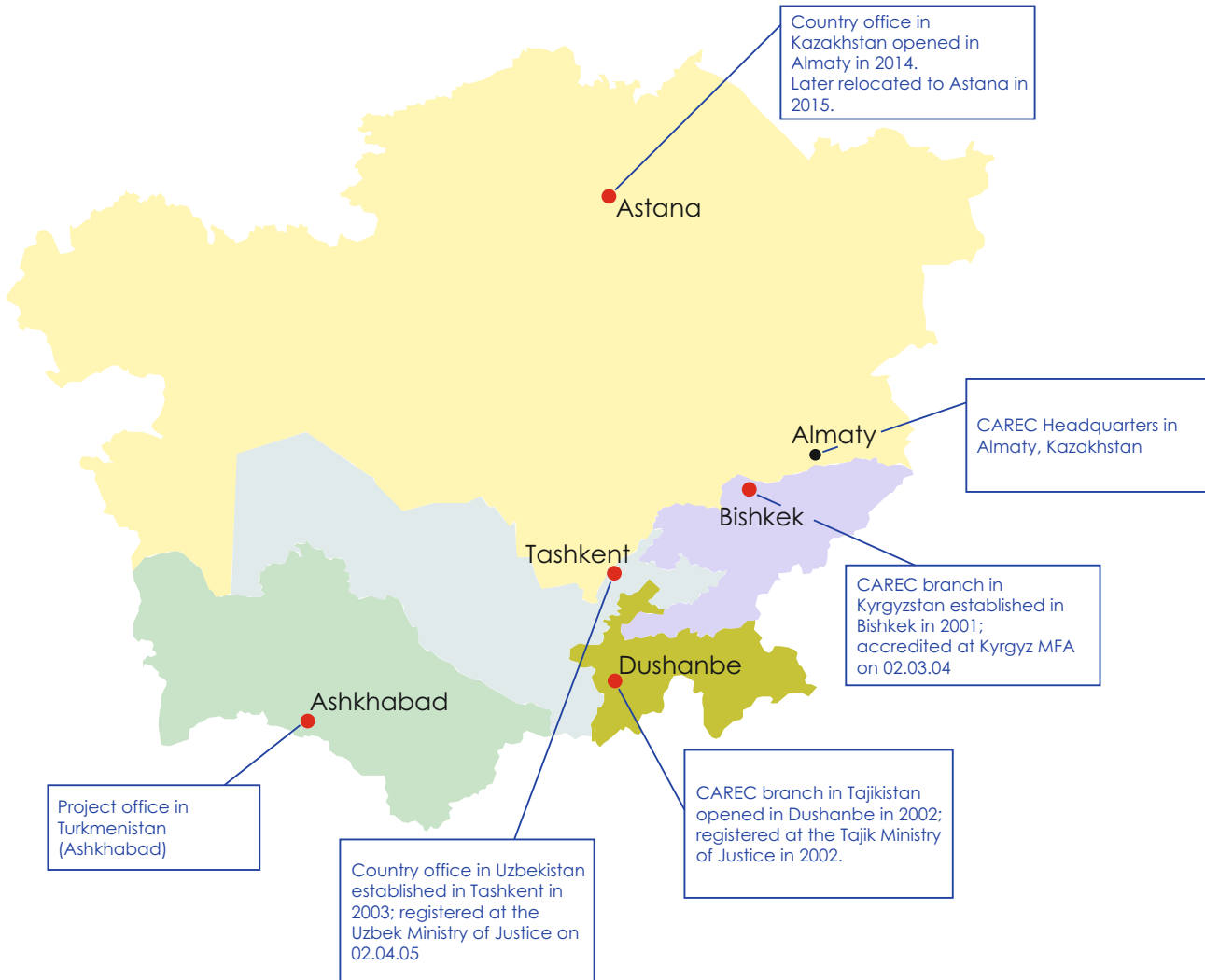
Source: Secretariat, ICSD



### 3.5. Regional Environmental Center for Central Asia (CAREC)



CAREC is an independent, non-profit, nonpolitical international organization, which assists the Central Asian governments, regional and international stakeholders and partners in addressing their environmental and sustainable development issues in Central Asia. The headquarters is located in Almaty, with the country offices operational in five Central Asian states.



In 2018, CAREC continued enhancing cooperation to improve the environment in Central Asia. Together with international partners, state authorities, local governments, civil society of the countries in the region, multiple important national and regional initiatives and events were launched in the field of environmental protection and sustainable development.

#### Regional and International Cooperation

The year was full of intensive and productive efforts in terms of partnership initiatives: ASBP-4 development process launched jointly with EC IFAS; updating of REPSD CA undertaken together with EC IFAS, ICSD, EU, GIZ and UNEP.

CAREC continued supporting ED IFAS in Kazakhstan in promotion of water education reforms. The drafted list of occupational standards was submitted to the Kazakh Ministries of Labor and Social Protection and of Agriculture to pass all required state procedures so that to be integrated into the formal education process.

**Major events were organized** on water governance, climate change, and regional cooperation enhancement to reach sustainable development in CA:

- [Central Asia Climate Change Conference 2018](#) within the framework of the Cli-

mate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB) and as a continuation of the World Bank's initiative for climate change knowledge and information exchange in Central Asia (24-25 January, Almaty). It brought together more than 250 representatives from governmental and non-governmental agencies, academia, development partners, multilateral development banks, civil society and business companies that work in the area of climate change adaptation in the region and beyond. The participants discussed different dimensions of adaptation in the region – Policy, Research, Best practices, Climate Finance and Climate Information Services. Discussions and information exchanges will contribute to new directions for further climate research, climate policy framework, promote integrated approaches and open routes to new partnerships for climate resilient development in the region;

- [a regional meeting of representatives](#) of the MFA's and parliaments of the countries of CA and Afghanistan organized with the support of the Stockholm International Water Institute (SIWI) to identify ways for further cooperation in the field of water diplomacy (26 January, Almaty). For the first time, representatives of the Islamic Republic of Afghanistan participated in the event. During the meeting, the participants presented analysis of proposals and expectations gathered during the work of the platform for interaction of representatives of the MFAs and parliaments of CA countries over 2016-2017, as well as the draft roadmap of cooperation and the draft work plan for 2018-2020, which were developed on the basis of a series of meetings: both at the national and regional levels. In addition, the participants also talked

about the results of the national consultations held in the countries, during which suggestions were made for further work of the site;

- [Second Central Asian International Environmental Forum](#) on the theme "Strengthening Cooperation on Environment and Sustainable Development in Central Asia" (5-8 June, Tashkent);
- first [Small Basin Councils Forum](#) of Central Asia and Afghanistan organized in Bishkek (26-27 November, Bishkek). The event brought together 140 representatives of the Small Basin Councils, relevant ministries and departments of the region, as well as international organizations and projects to exchange ideas and experience within the framework of the USAID-CAREC Smart Waters project. During the Forum, an exhibition of project areas, small transboundary rivers of the region, where the project is executed was held. Smart Waters project specialists and representatives of the SBC presented the progress of work and current challenges.

### Promoting cooperation on small transboundary rivers

Since 2012, CAREC, with the support of international development partners (USAID, GIZ, Ministry of Economic Affairs and Climate Policy of the Netherlands, etc.), has been working on establishing Small Basin Councils in the CA states and Afghanistan. By present, 13 Small Basin Councils have been established and become operational.

In 2018, as part of the USAID-financed Smart Waters Project, CAREC continued activities related to implementation of basin planning on small transboundary rivers in the region. The first officially recognized small basin councils were established in Turkmenistan (on the Murghab River) and Uzbekistan (on the Padshaata River). Implementation of this component in Turkmenistan is based on the new national Water Code, the updated version of which entered into force in 2016 and which, for the first time, outlined the principles of integrated water resources management, including basin management. As to Uzbekistan, the established Basin Council is the first and pilot one and will serve as an example, based on which decisions can be made on changes in relevant legislation.

In 2018, CAREC issued a number of publications (for more details see Section "[Publications in 2018](#)").

Source: CAREC





