Section 3

IFAS and Other Regional Organizations in Central Asia

3.1. International Fund for Saving the Aral Sea



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 setup of IFAS is shown below.



Tajikistan took over the IFAS chairmanship for the period of 2019-2022 in line with the decision of the Second Consultative Meeting of the Heads of CA States (November 29, Tashkent). President Emomali Rahmon will be chairing IFAS over that time.

3.1.1. Implementation of initiatives of the Presidents of CA States voiced at XII Summit of the Heads of IFAS Founder-States

The Presidents of CA States have put forward important initiatives and proposals at XII Summit of the Founder-States, which was held in the city of Turkmenbashi on the 24th of August 2018. Following the Summit, a Joint Communiqué was adopted. Implementation of the initiatives in 2020 is described in the subsections of ICWC (3.3) and ICSD (3.4) executive bodies and in Key Water Developments in the Countries of Central Asia.

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 by a decision of the Interstate Council of 13 July 1993. It serves as a platform for dialogue between the CA countries and the international community.

The Chairman of EC IFAS – Mr. Sulton Rakhimzoda – was appointed on 28 September 2020 by the Decree of the President of IFAS, the President of the Republic of Tajikistan.

Plans. The regional dialogue on institutional and legal improvement of IFAS and the implementation of the Aral Sea Basin Program (ASBP-4) after its approval are considered as priorities of Tajikistan's chairmanship. Development of a regional plan for adaptation to climate change and building capacities of national hydrometeorological services for studying Central Asian glaciers are also under consideration.



Activity of EC IFAS in 2020

Projects. EC IFAS ensures regional coordination and is involved in implementation of regional components of the Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB). To continue the Central Asia Hydrometeorological Modernization Project (CAHMP), EC IFAS and the International Development Association signed an Agreement on additional financing of \$11.5 for 2019-2023 (3 December 2019), including: component A (regional) – \$3.5 million; component B (Kyrgyz Republic) – \$5 million; and, component C (Tajikistan) – \$3 million.

Meetings. EC IFAS had online meetings with:

■ UN Resident Coordinator in Tajikistan, Ms. Sezin Sinanoglu. During the meeting, the parties discussed the issues of strengthening cooperation and collaboration within the framework of the International Decade for Action "Water for Sustainable Development", 2018-2028, including the organization of the High-level International Conference in Dushanbe in 2022. (17 November);

World Bank Regional Director for Central Asia Ms. L. Burunciuc. The parties discussed priority areas of bilateral cooperation, including ASBP-4, reformation of IFAS, prolongation of CAMP4ASB Component 1 and Sub-component 3.1, and the possible implementation of a project for studying and monitoring glaciers in CA (17 November);

3.2.2. Regional Center of Hydrology

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

EU Special Representative Mr. P. Burian. Institutional and legal improvement of IFAS, implementation of ASBP-4 and other matters were discussed during the meeting (20 November);

 GIZ, on development of cooperation within the framework of the "Green Central Asia" initiative. The parties agreed on signing a Memorandum of Understanding (27 November);

Head of the European Union Delegation to Tajikistan, Ambassador Marilyn Yosefson. Among other matters, the parties addressed those related to climate adaptation and mitigation at the regional level, the impact of glacier melting on regional water resources, and institutional and legal improvement of IFAS (4 December);

Chair of the Governing Council of Asia-Pacific Water Forum, Mr. Ravi Narayanan. The parties agreed to hold a preparatory webinar to the 4th Asia-Pacific Water Summit on water issues in Central Asia, as well as to organize a joint session within the framework of the Stockholm World Water Week in 2021 (9 December).

The UN General Assembly, at its 75th Session, unanimously adopted a draft resolution (A/RES/75/212) entitled "United Nations Conference on the Midterm Comprehensive Review of the Implementation of the Objectives of the International Decade for Action "Water for Sustainable Development", 2018-2028" (21 December).

hydrometeorological forecasts, environmental monitoring and data exchange between the national hydrometeorological services 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.

Activity of ED IFAS in Kazakhstan in 2020

Projects:

The WB "North Aral Sea Development and Revitalization" Project (P170187) was under preparation in the course of the year.

"Ensuring Safety, Conservation and Development" of Fish Stocks in the Northern Aral Sea Region. Capacity Development of the Aral-Syrdarya Basin Council" as part of the Berlin Water Initiative: the presentation event of the project and a fish protection structure at the Kokaral dam was held on 17 June; the monitoring of operation of the fish protection structure and of fish stock in head-water and tail-water was conducted in July and August. Thanks to the project it became possible to save about 4 thousand tons of adult fish (53 million population) and 1 thousand tons of young fish (30 million population). ED IFAS took part in the XXV meeting of the Aral-Syrdarya Basin Council, where diversification of irrigated agriculture, water conservation, nongrowing season operations and other issues were discussed (8 December).

• "Development of the Aral Region Wild Animals Adaptation": a hunting farm was organized on 47 thousand ha on the North Aral Sea south coast (Kokaral peninsula) to monitor fauna and flora.

■ The demonstration project "Afforestation of the Dried Bottom of the Aral Sea: Piloting a Closed Root System" was started as part of the EU funded project "Nexus Dialogue in Central Asia" on a land plot of the Eco-Aral Science and Tourism Center located on 10 ha of south coast of Kamystybas/Kambash Lake. The demonstration project aims to improve survival rate of plants in this area.

■ As part of the "EU and Central Asia: New Opportunities for a Stronger Partnership" Strategy and the "Capacity Building for Cooperation on Dam Safety in Central Asia" Project, representatives of the Slovakian state enterprise "Vodohospodarska Vystavba" during their field visit monitored hydraulic structures with a view to develop a dam safety system and organize construction of small hydropower (24-27 February, Almaty, Taraz). A meeting was held on safety of hydraulic structures on 15 June. The participants discussed the issue of resuming the process on the regional cooperation agreement on hydraulic structure safety in CA.

• The possibilities of cooperation under the project "Development of RS-based assessments of the present environmental state of the Aral Sea region in Kazakhstan territory as an increased risk area" were discussed with the representatives of the National Center for Space Research and Technology (6 January). ■ The issues related to implementation of the regional project "EU-Central Asia Cooperation on Water – Environment – Climate Change" (WECOOP), third phase were addressed at the 9th meeting of the EU-Central Asia Working Group on Environment and Climate Change (WGECC) (12-13 February, Brussels).

• As part of implementation of the State Program for tourism development in the Republic of Kazakhstan for 2019-2025, the working group conducted field studies of abandoned ships on the Kazakh part of Vozrozhdeniya Island for possibility of organization of an open air museum (21-28 September) and development of the Aral tourist cluster (28-30 September).

Regional and international cooperation. ED IFAS in Kazakhstan took part in the following events: working meeting on Central Asian water and energy consortium (25 August, Nur-Sultan); discussion on the draft Agreement between Kazakhstan and Uzbekistan on the use and protection of transboundary watercourses (25 August, MEGiPR RK); survey of interstate hydrotechnical constructions in the territory of the Republic of Uzbekistan within the expert group on monitoring of hydrotechnical constructions in riparian countries (23-30 September); finalizing the national part of the Strategic Action Program for the Chu and Talas River basins within the working group (5-6 March); 28th meeting of the Chu-Talas Commission (8 December, Taraz); meetings organized by the International Water Assessment Center (22-23 September, 20 November, 14 December, see UN Economic Commission for Europe); working meeting of the representatives of ICSD bodies on preparation of an ICSD Advisory Coincil meeting (15 December, Tashkent).

ED IFAS has discussed with (1) representatives of German Foreign Office and Embassy of Germany in Almaty the possible ways to involve German investors in the Kazakh agribusiness (17 January); (2) Astana International Financial Center (AIFC) the future actions to mobilize green finances and technology for the Kazakh part of the Aral Sea region (4 November). Memorandum of Understanding and Partnership was signed with AIFC Green Finance Center (14 December). USAID and U.S. Embassy in Kazakhstan organized a field trip to the Kazakh part of the Aral Sea region to take stock of the topical issues in situ (1-4 December).

Capacity building and education. A Memorandum of Understanding was signed between ED IFAS and the Central Asia Sustainable Innovation Bureau (CASIB) at the German Federal Ministry of Education and Research to promote cooperation through the exchange of knowledge and practices between the two countries (9 September). Also, ID IFAS took part in:

 (1) the meeting of the Scientific-Methodological Alliance on training in the 6B074 "Water Economy" topic (23-24 January, Taraz); (2) approval and examination of a final report on Professional Standards (27-30 January), as part of development of curricula and training plans on the basis of Water Professional Standards;

the work of the regional academic expert group on discussion of a model curricula on unification of training in "Hydrotechnical reclamation" and "Hydraulic structures" topics for CA (12 November);

seminars at the International Training Center for the Safety of Hydrotechnical Constructions for advanced training of KazNIIVH specialists (6-8 February, Taraz); on financing transboundary water cooperation and basin development (16-17 December);

organization, jointly with GKU and the "Barsakelmes" State Nature Reserve, of events as part of the Second Aral Sea Summer School and the ESERA (Ecosystems, Society and Economics of the Region of Aral) Project (25-30 August);

• the Global Disruptive Tech Challenge 2021: Restoring Landscapes in the Aral Sea Region as a member of the judging panel (8 October, 15 December);

Discussion of the "Comprehensive Analysis of the Kazakhstan's Water Code for Ammending and Supplementing It in Light of the Present State of the Water Sector" (23 December).

Media outreach. The "Kazakhstanskaya Pravda" newspaper published materials on topical issues of the water sector and problems in the Aral Sea region (15 October). Interviews were given to: "QazaqZerno" on perspectives of the Aral Sea (29 October); "Inbusiness.kz" e-newspaper on planned exploration of "Tau-Ken-Samruk" in the lle River delta (30 October); and, Berlin Radio (25 November-4 December). With the assistance of the Direction, special correspondent of the "Novaya Gazeta" public newspaper Mr. Khasanov traveled to the Kazakh part of the Aral Sea region and interviewed A.K. Kenshimov (18-20 November).

Source: ED IFAS in Kazakhstan, www.kazaral.org

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

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

Activity of the GEF Agency of IFAS in 2020

The **project activities** are 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.

Work was done as part of the following projects

"Construction of small local water bodies in the Amu Darya Delta. Phase II". Work was continued on (1) "Reconstruction of a road dam along Maipost Lake and construction of an overflow structure on the Amu Darya River (Akdarya) together with measures to prevent canyon formation processes in Domalak Lake". The work implemended by the contractor in the face of the "Kuprikkurilish" Trust costed 377.153 billion soum; (2) "Reconstruction of the Muynak Canal". The total cost is 28,691.451 million soum, of which 13.54 billion soum were disbursed. Contractor - GUP "Zarafshanmakhsussuvkurilish"; (3) "Provision of irrigation water for the subsidiary plots (65 ha) of the Muynak city citizens through a pressure pipeline network composed of 250 mm diameter polyethylene pipes". The total cost, including the construction of irrigation pipeline network in the city and of the pumping stations, is 10,546.357 million soum; contractor - OOO "Guldirsinkurilish". The work is to be completed in early 2021; (4) "Construction of a protective dam at the Muynak airport and the subsurface horizontal drainage". The total cost is 18,856.907 million soum; contractor – OOO "Guldirsinkurilish". Construction of the protective dam has been completed (14,359.475 million soum), and that of drainage is to be completed in early 2021.

• "Protective afforestation in Akhantai site" and "Protective afforestation in Akkum ridge". No afforestation work was made in 2020. Resources (saxaul seeds, young plants) and contractor's workers were mobilized for planting a "green cover" on the exposed bed of the Aral Sea. The work on the above projects will be restarted in 2021.

"National water resources management in Uzbekistan" (SDC). Support was rendered to MWM in the development of the 2030 Water Sector Development Concept. An agreement was signed between the Government of Uzbekistan and the Government of Swiss Confederation on the Project Phase II (16 June).

The Agency took part in the feasibility study of the GEF project "Conservation and sustainable management of lakes, wetlands and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods".

Activities in support of IFAS. The Agency prepared information on cooperation between the Russian Federation, Uzbekistan and IFAS and supported the application of Russia to become an observer in IFAS.

Political participation. The Head of the Agency V. Sokolov took part in a session of the Uzbek Oliy Majlis' Senate Committee on the Aral Sea region development (18 November) and was selected as a member of the Expert Group. The Agency also participated in three meetings of the Tashkent City Council of the Ecological Party of Uzbekistan and a session of the Party Plenum (20 November). **Promotion of water-environmental agenda.** Efforts were made to attract attention of the international community and donors to water and environmental problems in the region, promote the initiative of the President of Uzbekistan titled "Aral Sea Region as an Area of Environmental Innovation and Technologies", and further a CA regional water conservation program.

GWP – GEF Agency of IFAS. The National Water Partnership of Uzbekistan has been functioning at the Agency since 2017. In 2020, organizations in Uzbekistan were mobilized for participation in the Water Change Maker Awards, the analytical review "Degree of SDG 6.5.1 indicator achievement – implementation of IWRM in the Republic of Uzbekistan in 2020" was done and the "Global Water Partnership's support for water management initiatives of key partners in Uzbekistan" was published.

Asia Water Council (AWC). Mr. Sokolov as the Chairman of the Council's Special Committee on Water-Energy-Food Nexus participated in the following online events: (1) meeting of representatives of AWC Special Committees, to discuss selection of water projects and progress of preparation to the 2nd International Asia Water Week/2-AIWW titled "Sustainable, clean and sufficient water for all" (26 March); (2) 11th and 12th AWC Board meetings (8 July, 16 December, see International Water Organizations and Initiatives).

Republican and international events. The Agency took part in the Green Aral Sea crowdfunding campaign launched with the UNDP's support, the aim of which was to plant a 100-hectare forest of 100,000 saxaul saplings on the dried seabed (11 March). Presentations were made at (1) a video conference or

ganized by the Tashkent branch of the Russian Economic University named after Plekhanov and dedicated to international cooperation on Aral Sea problem (20 May); (2) a video conference to discuss a new project on "Development of new technologies for monitoring and controlling the use of water resources to combat salinization and improving land productivity and food security in the Aral region" as part of the JICA Science and Technology Research Partnership for Sustainable Development (SATREPS) (27 August); (3) a roundtable "Initiatives of the President of Turkmenistan for the environmental improvement in the Aral Sea region and their implementation" (2 December); and, other events.

During the year the staff of the Agency participated in a webinar series as part of the preparation for the 4th Asia-Pacific Water Summit/APWS (23 September, 7 October, 10 November, 26 November, 22 December); a webinar "Introduction of environmental technologies and innovations in the Aral Sea region as part of the new EU strategy for Central Asia: cooperation between Uzbekistan and Belgium" (22 October).

Media outreach. Events organized by the Agency were covered in media. These included in particular, the interviews for "Uzbekistan 24" TV-channel (7 February, 20 May), Uzbekistan 24 radio-channel (12 March), etc. Agency's publications are available on https://aral.uz/wp/category/newspaper/ and https://aral.uz/wp/category/net/. A number of research papers, reports, brochures and books is accessible on https://aral.uz/wp/publications/p3/.

Source: GEF Agency of IFAS; 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 18 February 1992. The organizational set-up of ICWC is shown in the figure below.

3.3.1. ICWC meetings

In 2020, ICWC held two meetings in a video conference format: 78th (10 April) and 79th (24 November). ICWC members from Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan¹³, 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 summarized the results on the above items in the non-growing season 2019-2020 (78th meeting) and the growing season 2020 (79th meeting).

The limits of water withdrawals for both river basins were approved for the growing season 2020 (78th meeting). The forecast operation regimes of the reservoir cascades in the basins proposed by BWO Amu Darya and BWO Syr Darya were taken into account.

¹³ Since the 68th meeting, representatives of the Kyrgyz Republic have not taken part in ICWC activity





An agreement was reached to further review and approve by the end of May the operation regimes on the basis of more accurate forecasts of water availability.

BWO Syr Darya has developed and submitted to ICWC members for their consideration the revised forecast operation regime for the Naryn-Syrdarya reservoir cascade. Regarding measures to ensure additional discharge from reservoirs in the Syr Darya River Basin during the growing season (78th meeting), the Parties agreed to take actions to ensure the inflow and appropriate water releases from reservoirs of interstate character in light of anticipated low water level during the growing season 2020. Relevant bi- and trilateral protocols have been signed. According to the protocol of bilateral negotiations between the Republic of Kazakhstan and the Kyrgyz Republic dated May 26, 2020, the Republic of Kazakhstan concluded an agreement with the Kyrgyz Republic on the reception of electricity, which allowed releasing additional 321 Mm³ of water from the Toktogul Reservoir during the period from June to August.

Based on a working meeting between the Republic of Kazakhstan, the Republic of Tajikistan and the Republic of Uzbekistan of June 30, 2020, a tripartite protocol was signed and the Republic of Kazakhstan concluded an agreement with the Republic of Tajikistan on the reception of electricity, which allowed releasing additional water from the Bakhri Tojik reservoir in the amount of 306 Mm³ during the period from July to August.

Due to the deteriorating water situation impacting the Naryn-Syrdarya reservoir cascade, the Republic of Uzbekistan and the Republic of Tajikistan signed a protocol dated July 15, 2020 to drawdown the Bakhri Tojik reservoir by additional 170 Mm³ in the period from July to August as compared to the trilateral protocol. The forecast limits of water withdrawal were approved and the proposed operation regimes of the reservoir cascades for both river basins were taken into account for the non-growing season 2020-2021 (79th meeting).

The Kazakh party proposed to consider and approve limits of water withdrawal for the Karadarya and the Chirchik rivers. In this context, the parties requested BWO Syr Darya to draft a proposal on the determination and approval of water withdrawal limits for those rivers.

The information by SIC ICWC on progress in implementation of the proposals and initiatives voiced at the Summit of the Heads of IFAS Founder-States in Turkmenbashi was taken into consideration at 78th and 79th meetings.

The efforts of the ICWC executive bodies on implementation of those proposals and initiatives of the Heads of IFAS Founder-States were acknowledged (78th meeting).

3.3.2. Activities of ICWC Executive Bodies in 2020

Executive bodies of ICWC



BWO Amu Darya

Activity of BWO Amu Darya in 2020

BWO Amu Darya continued working on interstate water allocation and real-time control over observance of the established water withdrawal limits approved at the ICWC meeting (see Water-Related Situation in the Amu Darya and the Syr Darya River Basins), on modernization and operation of waterworks facilities that are under responsibility of BWO, and prepared materials for and participated in two ICWC meetings (see ICWC meetings) and 15 meetings of water management organizations responsible for the river's lower reaches on the issues of water allocation.



Despite the COVID-19 pandemic, BWO Amu Darya maintained cooperation with national water agencies of Turkmenistan, Tajikistan and Uzbekistan, national hydrometeorological services, SIC ICWC, and IWMI. Representatives of BWO Amu Darya and its territorial branches took part in regional programs, conferences, and training workshops. In particular, with the support of GIZ, training was held for BWO's staff on how to handle the software for evaluation of snow cover in the catchment area of the Amu Darya.

Source: BWO Amu Darya, http://amudarya-bwo.org/

BWO Syr Darya

Activity of BWO Syr Darya in 2020

Despite lockdown measures, BWO Syr Darya kept maintaining waterworks facilities, including canals, gauging stations, communication facilities, buildings and other structures under responsibility of the organization to ensure efficient use of water resources and trouble-free and sustainable supply of water to userstates.

ICWC meetings. BWO Syr Darya took part in preparation of 78th and 79th ICWC meetings. The reports on forecast and actual operation regimes of the Naryn-Syrdarya cascade of reservoirs and the limits of country water withdrawals for the growing season 2020, with account of the expected low-water condi-

tions (forecast and actual), and the non-growing seasons 2019-2020 (actual) and 2020-2021 (forecast) were submitted for consideration and approval. The forecast and actual data from UzHydromet, CDC "Energy", Ministry of Water Management of Uzbekistan, and Committee for Water Resources of Kazakhstan were used for that purpose.

Repair and rehabilitation operations. The territorial branches of BWO carried out ongoing maintenance of waterworks facilities, buildings and control stations. For the Dustlik canal, gates of check structures at 24 km and 39 km and at the old head structure were repaired and a gate of the check structure at 26 km was replaced. The slopes of the Dustlik canal were rehabilitated. The gates of head structures at the Big Fergana Canal and the Zardarya Canal were repaired. The gates of the head structure at Khakulabad divider on the Feeder Canal, DP15 were replaced. Also, canals and structures were mechanically cleaned as planned.

"Smart Water" system. With the financial support of KOICA and assistance of the Uzbek Ministry of Water Management the Smart Water system's equipment was installed at four structures (K-1, K-3, Right-bank offtakes of the South Golodnostepskiy Canal (SGC) and the Dustlic canal) of the Gulistan Waterworks and Dustlic Canal Authority to measure water levels and quantities in automatic mode and transmit the data online.

Reconstruction and modernization. As part of the investment program, the tail-water of Kuyganiar hydroscheme¹⁴ was reconstructed and the construction¹⁵ of additional protection structure downstream of the hydroscheme's dam was partially done. The reconstruction would ensure reliable and long-term operation of the hydroscheme and guarantee irrigation of 230,000 ha in the Fergana Valley. In line with the Governmental Decree of 10 January 2020 on measures for development of social and production infrastructure in the Republic of Uzbekistan in 2020-2022, the construction and repair work was done as part of "Reconstruction of the tail-water of the head structure at Northern Fergana canal in Uchkurgan district, Namangan province" and the "Reconstruction and modernization of the head structure at DP 145+00 of SGC in Shirin town, Syrdarya province", 1st stage.

Source: BWO Syr Darya, https://bwosyrdarya.org/

ICWC Secretariat

Activity of the Secretariat in 2020

The ICWC Secretariat together with other executive bodies took part in organization of the two meetings of ICWC (see ICWC meetings), fulfillment of decisions and assignments of ICWC.

Source: ICWC Secretariat

Scientific-Information Center of ICWC

SIC ICWC was established on 5 December 1992. SIC ICWC has headquarters located in Tashkent and its branches in Kazakhstan, Kyrgyzstan and Tajikistan. The Center contributes to implementation of ICWC tasks through organizational and technical support, information and analytics, capacity building, international communications, scientific research and expert advise.

Activity of SIC ICWC in 2020

ICWC Working Groups. The work was continued in four areas as part of the "Implementation Plan on strengthening ICWC activities in key directions":

Water conservation. The "Methodology for scheduling water use and water delivery for farms" was refined according to comments (Russian and Uzbek versions).

Implementation of integrated water resource management and adaptation to climate change. The following reviews were prepared: "Lessons and vision of the adoption of the hydrographic and public participation principles in the CA water sector"; "Basin planning: theory and practice"; "Establishment and functioning of national water governance organizations: theory and practice" (Russian version); "Water pricing system abroad and in Central Asia" (Russian version); "Rules and procedures of Basin Councils"; and, "Legal and institutional aspects of water management in the Central Asian countries" (Russian version).

Improvement of water accounting quality and accuracy. SIC ICWC developed project proposals on

"Automation of Tuyamuyun reservoir's structures (Amu Darya River)" and "Automation of gauging stations and hydraulic structures along the Syr Darya River", prepared the review on "Generalization of existing water accounting and reporting practices" (Russian version), the paper "Automation of the Syr Darya and the Amu Darya Rivers" (Russian version), and gained approval from working group's members from BWO Amu Darya and BWO Syr Darya on the Manual on measuring water discharge in canals (Russian version).

Building capacity of regional and national organizations. SIC ICWC prepared reviews on "Strengthening water cooperation between regional and national organizations in Central Asia" (Russian version) and "Regarding international experience in vocational education" (Russian version). The draft procedural documents such as the "Rules of ethics and official conduct for the staff of ICWC organizations" and the "Procedure of interactions of ICWC organizations with one another and with outside agencies" were disseminated among ICWC members and heads of executive bodies for consideration.

Organizational and technical activity. SIC together with other bodies of ICWC took part in organization of the two meetings of ICWC (see ICWC meetings), fulfillment of decisions and assignments of ICWC. SIC has developed analytical reports on the water-related situation in the region for growing and non-growing seasons. The work was continued on the analysis of the state of the South Aral region and the Aral Sea, including monthly estimations of the inflow from the Amu Darya River and collecting drains and the changes in the water surface in Eastern and Western parts of the Aral Sea and lake systems of the Aral Sea region using satellite imagery: 19 February, 22 March, 25 May, 10 June, 28 July, 20 August, 14 September, 16 October. It was found that during the year there were periods with insufficient inflow of water into the Aral Sea region and a sharp reduction in the water surface of lakes (compared to design areas). The results are available on the CAWater-Info portal in its section dedicated to the Aral Sea (see Monitoring of Changes in the Water Surface Area of the Large Aral Sea and the Amu Darya Delta).

SIC ICWC took part in the follow-up activity to the Joint Communiqué adopted at the Summit of the Heads of IFAS Founder-States, implementation of the CA country presidents' initiatives. Prof. Dukhovny reported on the activity of SIC ICWC on (1) Automation of operation of gauging stations in the Amu Darya and Syr Darya River basins; (2) Establishment of an International Water and Energy Consortium; (3) Water diplomacy and IWRM; (4) Water conservation and rational use of water resources; (5) Water accounting; (6) Preparation of the Regional Program for Rational Use of Water Resources in Central Asia; (7) Mitigation of consequences of the Aral Sea catastrophe; (8) Scientific cooperation; (9) Development of ASBP-4; and, (10) Reform of IFAS at 78th and 79th ICWC meetings. This information was also presented in 84th and ICWC bulletins. For effective development and 85" implementation of the Presidents' initiatives and for the improvement of water management system in Central Asia, SIC ICWC has drafted and submitted

¹⁴ Kuyganiar hydroscheme was built on the Karadarya River in 1939. The carrying capacity is 1,210 m³/s. The hydroscheme was damaged as a result of strong flood in 2010

¹⁵ The construction is to be completed in 2021

proposals on each direction for further consideration by ICWC members.

Technical, information and expert assistance was rendered to **national and regional** organizations through timely provision of relevant materials on their request. In particular, the following information and analytical contributions were made to:

fulfillment of decrees of the President and the Cabinet of Ministers of Uzbekistan: "On the establishment of the International Innovation Center for the Aral Region under the President of Uzbekistan" (PP-3975 of 16.10.2018); "On measures for organizing the work of the Research Center for Water Problems at the Cabinet of Ministers of Uzbekistan" (PKM 744 of 25.11.2020); "On approval of regulations governing the work of the Ministry of Water Management of Uzbekistan" (PKM 500 of 03.07.2018); "On measures for further improvement of the water management system" (PP-4486 of 09.10.2019); "On measures for further improvement of water management in Uzbekistan to ensure wider access to drinking water and improve its quality" (UP-5883 of 26.11.2019); "On formation of a single water budget of the Republic of Uzbekistan" (VQL-3339/20); "On 2020 state budget of the Republic of Uzbekistan" (ZRU-589 of 09.12.2019); and, "Concept of water sector development in Uzbekistan in 2020-2030" (UP-6024 of 10.07.2020);

■ draft documents: Governmental Decree on the adoption of the strategy of water supply and sanitation in the Republic of Uzbekistan for the period up to 2035 (ID 20815 of 10.08.2020); "Concept of water sector development in Uzbekistan in 2020-2030"; "Strategy of water management and irrigation sector development in Uzbekistan in 2021-2023" (staged implementation of the above Concept); Environmental Code; Concept of the National management information system for the water sector;

■ issue related to the development of cooperation between CA countries and Afghanistan: information on potential uses by Afghanistan of water resources in the Amu Darya River; analytical document on Afghanistan's interests in the use of Amu Darya's water; and, proposals on the involvement of Afghanistan in ICWC activity;

■ issue related to Sardoba dam collapse: expert analysis on potential consequences of the Sardoba dam collapse; translated article on the collapse in foreign media for information; information on the alleged causes of dam collapse and the need for radical solution on the future of the Syr Darya River basin. The check calculations made for possibility of dam collapse under the effect of wave fetch observed on the 1st of May in this area gave the negative answer;

• development of agroclusters and organization of a centralized system of agricultural extension services.

Information and analytical activity. The regional database on water and land use in the Aral Sea basin (CAWater-IS) is populated with the key information on all provinces of the riparian countries up to 2020: 45 indicators on land resources; 17 socio economic indicators; 11 indicators on water resources and their use (data received from national correspondents). The databases on the Amu Darya and the Syr Darya basins have been updated on ten-day basis (jointly with BWO Amu Darya and BWO Syr Darya). Two new

sections "Water-related situation in the Amu Darya River Basin" and "Water-related situation in the Syr Darya River Basin" have been opened on the SIC ICWC website, where analytical reports showing the situation for each ten-day period are available. This allows increasing openness and transparency of ICWC activity. The assessment of expected inflow into the Toktogul, Andizhan, and Charvak reservoirs and at Kelif gauging station for the growing season 2020 was uploaded as well.

Information and publication activity. The information support of activities of ICWC was further provided through issue and dissemination of publications and upgrade of databases and the knowledge base, analytical tools and models – the ASB management model (ASBmm) and the WUEMoCA tool, regional web-resources, including the CA water and environment knowledge portal (CAWater-Info), ICWC, SIC ICWC, and EECCA NWO web-sites and the "Atlas of water-management and environmental organizations in EECCA countries".

The knowledge base "Water in Central Asia" was populated with 1457 new entries, such as monographs, research papers, manuals, reference documents (guidelines, recommendations, etc.) and other publications.



Projects. SIC ICWC

under the contract with OECD, refined the Diagnostic Report on Rational Use of Water Resources in Central Asia, based on comments from national water agencies, research institute, academia and regional organizations in CA. This work was published in the form of a discussion document titled "Overview of the use and management of water resources in Central Asia".

as part of the joint UNDP-UNESCO project "Addressing the urgent human insecurities in the Aral Sea region through promoting sustainable rural development", organized, together with IIC of the Aral Sea, the second ground-based research expedition (28 May-26 June). The results were presented at a round-table (16 December) and in the publication "Monitoring the Dried Seabed of the Aral Sea" (see details in Water-related Situation in the Aral Sea Basin).

 completed main activities under the CAWA-3 (Regional Research Network "Water in Central Asia")
Project in 2019. In 2020, the collection of papers titled "The water use efficiency monitor in Central Asia – WUEMOCA" (in Russian) was published.

as part of the Project "Support to the Network of Russian speaking water management organizations and organization of a Network conference in Yekaterinburg, September 2019" together with UNECE (and with the support of RF) continued work on updating and population of the Network's website, weekly distribution of the e-newsletter "Water management, irrigation and environment in Eastern Europe, Caucasus and Central Asia". Additionally, the establishment of a regional expert platform on water security, sustainable development and future studies was initiated. Jointly with UNECE's consultants, SIC started the survey on "Statements made by the Central Asian countries at the UN General Assembly in 1992-2020: Key highlights and priorities" and the "Environment and Transboundary Cooperation in the Statements made by the EECCA countries at the UN General Assembly in 1992-2020".

issued four Aral Sea Basin Transboundary Water Early Warning Bulletins (February-March, March-April, April-May, May-June) as part of the UNRCCA project. The Early Warning Bulletins show the actual situation in the Amu Darya and the Syr Darya basins for the current month and the forecast for the next month.

• compiled and published, with the support of UNRCCA, the 2019 Water Yearbook: Central Asia and around the Globe in Russian and English. OSCE provided financial support for publication of 80 copies of the Yearbook in Russian and 50 copies in English for dissemination.

developed the methodological and information bases for calculation of river balance items and water balances of reservoirs on 7 balancing sites (from Toktogul hydroscheme to Shardara reservoir) and drafted recommendations on assessment of water losses as part of the work on the more detailed definition of water balance for the Syr Darya River and water balance for the reaches of Toktogul reservoir-Uchkurgan hydroscheme-Bakhri Tojik reservoir and Farkhad hydroscheme-Chardara reservoir.

developed the methodological and information bases for calculation of water balance of rivers and reservoirs on 12 balancing sites of the Syr Darya River basin and drafted recommendations on assessment of water losses as part of the work on the more detailed definition of water balance for the Karadarya River and the Chirchik River and development of respective computer programs.

Capacity building and training. The web-site "Capacity building and training" was further upgraded. For educational activities of SIC ICWC, please, see Regional Training Center at SIC ICWC. SIC's expert Mr. Muminov defended his doctor's thesis on "Improving the water financing methodology through market mechanisms" (4 September). Also, SIC's staff got training in various online seminars and webinars in the course of the year (see Professional Development Courses and Traininings in 2020). Deputy Director Ms. Ziganshina was invited to join the editorial team of the Central Asian Journal of Water Research (CAJWR) as a responsible editor for water governance and law, and Deputy Director Mr. Kenjabayev started his work as a reviewer of the Land Degradation & Development International Journal. Sh. Muminov has become a member of the editorial team of the e-journal "Actuarial finance and accounting" published by the Tashkent State Economic University.

Publications. 28 publications on water management and law were issued in hard and electronic copies and distributed electronically.

In particular: (1) the UNESCO-SIC ICWC book "Aral Sea and the Aral Region" (in English and Russian), which summarizes work undertaken by SIC ICWC on monitoring and analysis of socio-economic and environmental situation in the period from 1994 to 2018; (2) the book by Prof. Dukhovniy "Water Flows, Water Calls", v.3, "Bactria press" Publishing House and a review to this book by A. Khojaev "A new feat of Viktor Dukhovniy".

Media. Prof. V. Dukhovniy gave an extended interview to Uzreport.tv channel as part of the program series "New Report" with N. Makarenko on "Environmental disaster of the Chirchik River" (March 8).

International cooperation. SIC kept maintaining cooperation with embassies, international organizations and financing institutions and took part in activities of UNECE, WWC, ICID, GWP, and INBO.

As part of cooperation activities with (1) UNECE, D. Ziganshina contributed to meetings and activity of expert groups of the UNECE Convention on the protection and use of transboundary watercourses and international lakes; (2) ICID, Deputy Director Kenjabayev started working as the Secretary of the Working Group on Irrigation and Drainage in the States under Socio-Economic Transformation (WG-IDSST). SIC leadership took part and made presentations in a number of events, including: meeting of the Working Group (28 October, India); meeting of the Office Bearers Committee (17 November, India); 71st meeting of the ICID International Executive Council meeting (7-8 December). The ICID page on the CAWater-Info Portal was updated, http://cawater-info.net/ int_org/icid/index.htm; (3) INBO, SIC ICWC made contributions to Newsletter 28, 2020; took part in the webinar "Water information systems, governance and the interest of remote sensing: for an informed water resources management at national and basin levels" (15 September) and the World Liaison Bureau meeting in the context of the 18th International "EUROPE-INBO" Conference (10 November).

Within the framework of (1) the new EU Strategy on Central Asia: cooperation between Uzbekistan and the European Union, SIC leadership took part in the workshop "Implementation of Green Technologies and Innovations in the Aral Sea Region" and made a presentation on "Transboundary water cooperation in Central Asia: how science informs decision-making" (22 October); (2) membership in the International Water Resources Association participated in seminars: "Power and Diplomacy" (26 August); "Sustainability of engineered rivers in arid lands: challenge and response" (23 September); "Addressing groundwater resilience under climate change" (28-30 October).

SIC had meetings with (1) Mr. Parssa Razavi from the Irriport to discuss cooperation on digitization of water management and agricultural production processes at field level (26 February, SIC office); (2) Dr. H. Manthritilake on the possibility of developing joint SIC-IWMI projects (3 March, SIC office); (3) experts from the German economic group in Uzbekistan on the use of energy in the water sector as part of the assessment of the benefits of energy trade (8 October, videoconference); (4) ADB consultants and representatives on key water initiatives within preparation of a water pillar under CAREC-2030 (27 November, videoconference); (5) the analytical expert from the Economist Intelligence Unit regarding development of the Blue Peace Index of Central Asia.

Source: SIC ICWC

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. The Republic of Uzbekistan is chairing ICSD over 2020-2021 (30th ICSD meeting, 24 October 2019, Nukus).



Activity of ICSD in 2020

Regional Environmental Program for Sustainable Development in Central Asia (REPSD CA). In 2019, upon an ICSD's initiative, the REPSD CA was developed and approved¹⁶. The Program aims at better environmental situation in the region and sustainable nature management by enhancing regional cooperation in this field.

 $^{^{\}rm 16}$ By the decision of ICSD No.2 of 24 October 2019

Advisory Council. To maintain cooperation between the ICSD member-countries and coordinate activities on the implementation of REPSD CA, it was decided to establish an ICSD Advisory Council¹⁷ consisting of authorized representatives from environmental agencies, economic block of the ICSD member-countries, and others. The first meeting of the ICSD Advisory Board was held on 11 March 2021 in the format of videoconference. During the meeting, members of the Council viewed the activities of ICSD and discussed possibilities of cooperation with international and regional partners within the framework of implementation of REPSD CA.

Source: Secretariat and SIC ICSD



3.5. Regional Environmental Center for Central Asia



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.

Activity of CAREC in 2020

Despite the difficulties associated with the COVID-19 pandemic, the set goals and objectives were successfully achieved. Work was continued on key projects in the countries of Central Asia and Afghanistan, and partnerships and trusted collaboration in the region to address common environmental problems were further developed. **Transboundary water cooperation.** The USAID Smart Waters Project was completed. Final events were held in the format of a marathon/series of online events – Smart Waters Grand Finale. During the implementation period, the project has allocated 36 scholarships for nominated governmental employees to let them earn a master's degree in Integrated Water Resources Management (IWRM) from the Kazakh-German University (DKU) and grants for 40 young scientists for

¹⁷ Provision on the ICSD Advisory Council approved by the decision of ICSD No.3 of 24 October 2019



implementation of water research projects; 4 MoUs were signed between CA and Afghan universities; 30 research papers were published by students as part of a competition; 13 Small Basin Councils were established under the project on small transboundary rivers in CA and Afghanistan; 13 basin plans were drafted, and case-studies and GIS maps on the basins were produced.

Activity on water quality. A Regional Working Group on Water Quality (RGW-WQ) was established in 2009 by UNECE and CAREC. Since 2019, the RWG-WQ is supported by the Blue Peace Central Asia (BPCA) initiative of SDC, where CAREC is acting as a Secretariat of the BPCA Dialogue Platform. During the online meeting on 30 June members of the RWG talked about the changes in water quality management, monitoring and transboundary cooperation and outlined future plans. Representatives of Kazakhstan shared their experience in switching to a unified water quality classification of water bodies in the country. According to this classification, monitoring is carried out on 143 water facilities, all data is uploaded monthly to the online interactive map (https://maps.hydro met.kz/). The results of cooperation between Kazakhstan and Uzbekistan were also presented. The countries are working together on environmental protection and water quality in the Syr Darya River basin (see Bilateral Water Cooperation between Kazakhstan and Uzbekistan).

Activity on climate change. The Information Portal on climate adaptation and mitigation in Central Asia has been developed as part of the WB CAMP4ASB project. The Third Central Asia Climate Change Conference (CACCC-2020) was held in an online format (19-23 October). The conference materials are available on https://ca-climate.org/eng/events/con ference/.

The 11th Central Asian Leadership Programme on Environment for Sustainable Development (CALP) was held within the framework of the "Year of Volunteers in Kazakhstan" (14-18 September 2020). The event brought together 70 international, regional and national speakers and about 46 representatives of government, academic and civil society from 5 Central Asian countries and Afghanistan. The CALP agenda covered a wide range of issues, including the role of Education for Sustainable Development (ESD) and digitalization of education in response to global challenges, rationalization in the use of natural resources in CA within the framework of the SDGs, Nexus approach, the issues of integrated water resources management and climate change at the global and regional levels.

The new research program¹⁸ "Water as a driver of sustainable recovery: economic, institutional and strategic aspects of water resources management in Central Asia" was launched with its first webinar titled "Post-covid-19 recovery strategies: putting the water sector of CA on an economically and financially sustainable path" (3 November). The Program includes a series of webinars and in presence workshops. During the first introductory webinar, experts from CA countries and Afghanistan presented overviews of the water sector development in their countries. Since water is essential for life, for any economic activity, its sustainable and robust management is also a key to achieve most of the Sustainable Development Goals.

Source: CAREC, https://www.carececo.org/main/

¹⁸ implemented by the Corvinus University of Budapest and supported by the Blue Peace Central Asia initiative (BPCA) of SDC, SIWI, and CAREC within a partnership with the BPCA

