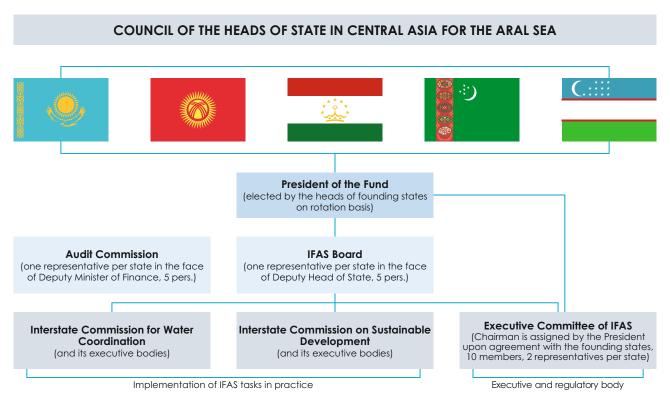


3.1. International Fund for Saving the Aral Sea



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). The President of Tajikistan, Emomali Rahmon has been elected as the chairman of IFAS.

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 had 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 2021 is described in the subsections of Executive Committee of IFAS and its National Branches, ICWC of Central Asia and in Key Water Developments in the Countries of Central Asia.

3.1.2. IFAS Board

A meeting of the IFAS Board was held in Dushanbe on June 29. During the meeting, the draft Work Plan of the IFAS Executive Committee, the Aral Sea Basin Program (ASBP-4), and the matters related to activities of the Working Group on Institutional and Legal

Improvement of IFAS were addressed. In particular, the ASBP-4, which serves as an important basis for the development and implementation of projects aimed at environmental and socio-economic improvement in the region, has been approved.

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 July 13, 1993. It serves as a platform for dialogue between the CA countries and the international community.



Location of EC IFAS by Country and Year



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

Plans. The regional dialogue on institutional and legal improvement of IFAS and the implementation of the Aral Sea Basin Program (ASBP-4) are considered as priorities for Tajikistan's chairmanship.

Activity of EC IFAS in 2021

Institutional and legal improvement of IFAS

The cooperation aspects in the improvement of institutional and legal framework of IFAS were discussed during the meeting between the EC IFAS and the World Bank on August 24. In the course of the year, three meetings of the Working Group on Institutional and Legal Improvement of IFAS were held: (1) 4th meeting, where EC IFAS presented progress and examples of different river basin commissions all over the world (Sava, Nile, Mekong, Columbia basins) and discussed next steps in RWG activity (online format, May 27); (2) an extraordinary meeting to discuss the current progress and plan further steps in light of the forthcoming 5th meeting of RWG, agree

upon the operating procedures and work schedule of the Group (online format, August 16); (3) **5**th **meeting**, where participants discussed comments to the draft Discussion document prepared by international consultants of the World Bank on the base of RWG's visions and the proposals on the 1st stage of the improvement process. The 2nd stage is focused on "identification of challenges/shortcomings in fulfilling functions and tasks by IFAS' organizations" (October 18).

ASBP-4 was developed on the basis of the decision of the IFAS Board of January 30, 2018 and approved by the decision of June 29. The Program consists of the following four focus areas: (1) integrated use of water resources; (2) environmental; (3) socio-economic; (4) improvement of institutional and legal mechanisms. The Program is to be implemented over 2020-2030. On October 18, in Dushanbe, with the support of the WB's CAWEP Program, a Coordination Meeting of the EC IFAS with international development partners was held. As a result, a Joint Statement on the implementation of the Action Program for Assistance to the Aral Sea Basin Countries (ASBP-4) was adopted.

ASBP-4 was presented at the 2nd Regional Consultation Meeting on Water Pillar under the CAREC 2030 Strategy (September 14) and "The Future of the Water

Sector of Central Asia – Opportunities and Challenges" workshop in Budapest (November 29-30).

The importance of the implementation of ASBP-4 for the CA region was underlined by the Chairman of the EC IFAS at the high-level session "Water Resilient Food Systems: an essential pathway in the face of climate change" (November 9) and the High-level panel discussion at the virtual Asian Water Hub of COP26 Water pavilion (November 10). The aspects of cooperation as part of implementation of ASBP-4 were also discussed (1) during the meeting with the WB Regional Director for Central Asia, Mrs. T. Proskurvakova (August 24); (2) at the side event "Central Asia: Regional Approach to working with the Green Climate Fund" as part of COP26 (November 3); (3) with Charge d'Affaires of Canada, the Embassy of Canada in Kazakhstan, the Kyrayz Republic and Tajikistan, Ms. N. Yegay (December 7); and, (4) with the EU Special Representative for Central Asia, Ms. T. Hakala (September 30, December 21).

Projects. EC IFAS implements the **first component** of the Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB), which aims at strengthening the knowledge base and capacity to counter climate change and promoting the regional multistakeholder dialogue and cooperation. For coordination and implementation of the regional components of the CAMP4ASB, an agreement between EC IFAS and WB on additional financing of the project (August 24) and an operational agreement on additional financing between EC EFAS and CAREC, through the Green Climate Fund (October 19-20) were signed.

During the meeting between EC IFAS and WB on August 24, the parties discussed implementation of joint regional projects, such as CAMP4ASB, CAHMP, and CAWEP.

A Memorandum of Understanding was signed between EC IFAS and GIZ on January 29.

Events. As part of preparation to the 9th World Water Forum "Water security for peace and development", the Central Asian Sub-regional Preparatory Conference was held in Dushanbe on October 19-20.

The chairman and representatives of EC IFAS participated and presented at: the side event "Aral Sea Basin: lessons, cooperation and prospects" on March 12: the Scientific-Practical Conference dedicated to the International Decade for Action: Water for Sustainable Development (2018-2028) and the World Water Day on March 31; the closing event of the Global Disruptive Tech Challenge 2021: Restoring Landscapes in the Aral Sea Region on April 9; highlevel side event during the UNGA High-level Week entitled "How changing water availability from ice and snow will impact our societies" (September 22); 10th meeting of the EU–Central Asia Working Group on Environment and Climate Change (WGECC) "Green Recovery: New Opportunities for Cooperation" (October 4); opening (November 1) and closing (November 11) of the Pavilion of Central Asia "5 countries, 1 region, one vote" organized by CAREC together with EC IFAS at COP26 in Glazgow; panel session "Water and Food Security" within the framework of the Sustainability Expo and Summit "Planet Budapest 2021" (December 1); high-level panel titled "Transboundary aquifers on the international high level agenda" as part of the Second International UNESCO Conference on Transboundary Aquifers (December 7); launching of the report "The state of the world's land and water resources for food and agriculture: Systems at breaking point/SOLAW 2021" (December 9).

Publications. The following items were published in 2021: "The role of IFAS in strengthening cooperation between the Central Asian countries"; "Tajikistan's global initiatives: platforms for discussion and search for optimal and sound ways to solve water-related challenges."

Source: http://ecifas-tj.org/; www.facebook.com/ec.ifas

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

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 2021

Projects:

 North Aral Sea Development and Revitalization Project (P170187, WB, Kyzylorda province): preparations were underway for the development of Project's feasibility study; work meetings were held with: (1) Kazgiprovodkhoz Insitute to discuss project components (February 16), a subcomponent for construction of the Main Kazalinsk collecting-drain to provide additional water for the South Aral Sea (March 4), and additional proposals for the feasibility study (September 27); (2) Vice-minister of ecology, geology and natural resources of Kazakhstan, S. Kozhaniyazov (February 28).

■ GIZ regional project "Ecologically Oriented Regional Development in the Aral Sea Region" (ECO-ARAL):

representatives of ED IFAS took part in the work meeting with project executors (July), the first meeting of the Project's Steering Committee (December 2).

- "Greening the dried seabed of the Aral Sea: piloting a closed saxaul growing system" two saxaul greenhouses and the shadehouse were opened in Aral District, Kyzylorda province in April.
- "Kendirtex" as part of the new Strategy "The EU and Central Asia: New Opportunities for a Stronger Partnership": three-year research work was begun with the aim of adapting highly profitable and less water-intensive crops in the Aral Sea region on the basis of the EcoAral Science and Tourism Center.

ED IFAS supported and took part in the expedition to the dried seabed of **western**, **central and eastern parts** (Kazakhstan's territory) of the Aral Sea (June 16-22). The objective was to determine the scope and time-frame of planned afforestation work.

A report was drafted upon the results of the Fourth meeting of the Kazakhstan National Committee on Geoparks entitled "UNESCO Global Geoparks: opportunities and potential in Kazakhstan." The idea of arranging a Geopark titled "Aral sea Geopark" on the base of the Barsakelmes nature reserve was supported by the UNESCO Cluster Office (September 20).

Events. The following events were organized by ED IFAS: (1) scientific-practical conference "Water Resources Management in the Context of Globalization" on occasion of the 105th anniversary of Prof. Tadjibayev, together with the Kazakh National Agrarian Research University (online, Almaty, March 11-12); (2) roundtable "Lessons, the present and the future of the Aral Sea region" dedicated to 30th anniversary of independence in the Republic of Kazakhstan (December 14).

Deputy Director Mr. Narbaev on behalf of ED IFAS presented the following reports at workshops and webinars: (1) "Setting the economic basis for regional water cooperation in Central Asia" (April 15); (2) "Reduced vulnerability of Central Asian population to glacial lake outbursts due to climate change" (May 25); (3) "Conditions of irrigated land as the main factor of sustainable development of irrigated agriculture" (September 24).

Media. Director of ED IFAS B. Bekniyaz gave interviews to "Egemen Kazakhstan" (March 5) and "Kazakhstanskaya Pravda" (March 26) on the work done and plans for the Aral Sea region.

Source: www.kazaral.org

3.2.4. Agency for Implementation of IFAS Projects in Uzbekistan

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 2021

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. The total financing by the end of 2021 was 109 952.158 billion soum (US\$10.47 million). The work was done as part of the projects mentioned below.

■ "Construction of small local water bodies in the Amu Darya Delta. Phase II". (1) Structures were put into operation within the framework of the: "Construction of embankment at Muynak airport and subsurface horizontal drainage" (total cost – 18,856.907 million soum); "Provision of irrigation water for subsidence plots (65 ha) in the city of Muynak through the polyethelen pressure pipeline network" (total cost – 10,546.357 million soum); (2) Work was continued on "Reconstruction of the Muynak Canal" (the total cost is 28,691.451 million soum, of which 8,352 million soum were disbursed in 2021) and (3) on "Reconstruction of a road dam around Maipost Lake and construction of an overflow structure on the Amu Darya River (Ak-

darya) together with measures to prevent canyon formation processes in Domalak Lake" (total cost – 398.0 billion soum), with the acceptance of the road dam, 6 m wide on the ridge and 10,645 m long on June 18 and the installation operations on the overflow structure.

- Afforestation: (1) Protective afforestation in Akhantai site" (450 million soum were allocated in 2021); (2) "Protective afforestation in Akkum ridge" (also 450 million soum were allocated in 2021). The Act of acceptance of a part of the protective forest plantations in the Akhantai site (4,799.88 ha) and in the Akkum ridge (589.98 ha), including the mechanical protection area of 118.2 ha, was approved on March 15.
- "National water resources management in Uzbekistan", Phase 2, SDC (project site 13 BISAs, 13 land reclamation field offices, 48 ISAs, and 155 district irrigation divisions): drafting of the Water Code by forces of national, regional and international experts, jointly with the Information-Analytical Resource Center of Uzbek MWM was started; the Drainage Information System is finalized; the capacity building program for district irrigation divisions was developed; a package of training materials on water conservation was prepared for 11 professional colleges (a new textbook was tested in 4 colleges); and, the online training on irrigation e-scheduling and the webinars on water conservation were organized.

¹⁹ Implemented in Kyzylorda province, Kazakhstan as part of the EU's "Nexus Dialogue in Central Asia" project on the basis of the EcoAral Science and Tourism Centre

"Monitoring of biodiversity of wetlands in the South Aral Region" (together with the Karakalpak Natural Science Institute under OSCE's support): 2 expeditions were undertaken on June 4-13 and September 25–October 5 to collect data on flora and fauna species and populations in wetlands (Makpalkol lake system, Mejdureche reservoir, Djiltyrbas lake, and Eastern Karateren). As a result, the risk assessment for regional wetlands was made.

Project proposals. In partnership with the Research-Consulting Center "Eco-service", the project proposals were prepared on the "Scientific platform for monitoring and restoration of ecosystem around Western part of the Aral Sea" for submission to AWC and on the "Possibilities of reversing negative natural processes in the Aral Sea region through innovation technologies" for submission to the Uzbek Ministry of Innovation.

Cooperation through regional projects. USAID Regional Water and Vulnerable Environment Activity (WAVE): The GEF Agency of IFAS assisted in the development of feasibility studies for two activities: (1) arrangement of exemplary oasis of forest plantation on the exposed seabed of the Aral Sea; (2) formation of temporary forest nursery for black saxaul and other plants for afforestation around the exposed seabed of the Aral Sea.

Regional GIZ Project "Ecologiocally Oriented Regional Development in the Aral Sea Project" (ECO-ARAL): The GEF Agency of IFAS supported the project in developing a strategy for building capacities of micro-, small- and medium-scale businesses, as well as of ministries and public agencies so that they could make investment decisions adapted to climate and oriented on environment.

Activities in support of IFAS. The GEF Agency of IFAS took part in briefings and coordination meetings of EC IFAS and its organizations; in activities of the working group on institutional and legal improvement of IFAS.

Political and civil engagement. The GEF Agency of IFAS took part in (1) the work of the Uzbek Oliy Majlis' Senate Committee on the Aral Sea region development (Committee's meetings and roundtables); (2) activity of the Ecological Party of Uzbekistan: thematic meetings, an ecological campaign; sessions of the Party's Political Council and the Tashkent party organization, etc. During the year, at the request of ministries and agencies, the GEF Agency of IFAS prepared proposals and analytical materials on implementation of international and regional initiatives of Uzbekistan in the field of ecology, transboundary water cooperation, etc.

Capacity building and education. Mr. Sokolov judged the "Global Disruptive Tech Challenge 2021: Restoring Landscapes in the Aral Sea Region" on the theme "Agriculture and Land Management" and has got the certificate "Innovative judge", as well as the regional stages of the Student Olympiad on Sustainable Development Goals (GKU, TIIAME). As a trainer, Mr. Sokolov delivered lectures within the frame-

work of the Project "Multimedia coverage of problems in the Aral Sea Region" implemented by the "MediaNet" International Journalists' Center (in May and December).

The GEF Agency of IFAS also participated in the Water Day organized by the UNESCO Chamber at GKU. It distributed the "Illustrated Album on History of the Aral".

International cooperation. The GEF Agency of IFAS cooperated with UNECE as part of activities of the Working group on integrated water resources management and the Working group on monitoring and assessment; ADB and CAREC, in developing the Water Pillar of the 2030 CAREC Strategy, participated in the first regional consultation on the Water Pillar on April 16. Together with the UNDP in Uzbekistan took part in the discussion on the special project "System risk management" and the launching of the 3rd Environmental Performance Review of Uzbekistan (July 15).

Representatives of the Agency participated in the roundtable discussions with U.S. Ambassador H.E. Rosenblum on Environmental Protection and Development in Uzbekistan (February 2) and Water Challenges (December 15).

In support of the Global Water Partnership (GWP), the GEF Agency of IFAS provides administrative management and facilitates implementation of the annual work program of the National Water Partnership of Uzbekistan. In particular, the following events were organized: (1) consultations on water-related disaster risk reduction during the COVID-19 in Uzbekistan, Georgia, and Kyrgyzstan; (2) a roundtable "Strategy of the Republic of Uzbekistan for implementation of integrated water resources management".

The GEF Agency of IFAS took part in (1) Pan-Asian webinars (four subregions) of GWP to discuss preparations to joint project proposal on "Resilience to climate transformations in Asia"; (2) a workshop of GWP ToolBox – IWRM Action Hub; (3) annual GWP regional days on occasion of Partnership's 25th birthday; (4) GWP's annual Network Meeting of Partners "Leading Change and Innovation through our Partners"; (5) annual meeting of GWP CACENA Regional Council. Assisstance was also rendered in drafting the analytical report "Draft concept for revision of the National Action Program on drought and land degradation control in Uzbekistan".

The GEF Agency of IFAS is an active member of the Asian Water Council (AWC). Mr. Sokolov took part in (1) two AWC Board of Council meetings – 13th meeting, where he presented the mission of the Uzbekistan's water management agencies to AWC's members (March 31), and 14th meeting (November 30); (2) pre-2nd AIWW – a series of virtual conferences entitled "2-AIWW ON-AIR" to discuss the draft Asia to World Statement as one of the main policy outcomes of 2-AIWW.

As a national expert of the **Expert platform on water** security, sustainable development and future studies,

Mr. Sokolov contributed to discussion paper on "Water, Food and Energy Security in Central Asia: Background Analysis – Benefits of Cross-Sectoral (Nexus) Solutions" and the analytical review on "Identification of Future Water Needs in the CA Countries and Development of Optimization Simulation Models for Efficient Utilization of River Potential in the Aral Sea Basin" (AO Gidroproyekt Institute/EDB).

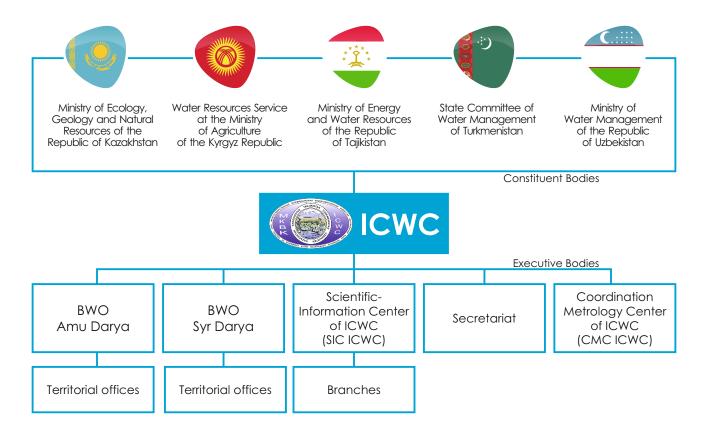
Media outreach. Events organized by the GEF Agency of IFAS were covered in media and on the web. Those included, in particular: regional TV channel of Karakalpakstan, Uzbekistan-24 and Oilaviy TV channels, Maxima and Uzbekistan-24 FM-87.9 radio stations, Podrobno.uz newswire, Global Landscapes Forum web-portal, UzbekKino and others.

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 in the interstate sources of the Aral Sea basin and implements the jointly developed programs on the basis of cooperation and mutual respect for the parties' interests. The Commission was formed on February 18, 1992. The organizational set-up of ICWC is shown in the diagram below.





3.3.1. ICWC meetings

In 2021, ICWC had two meetings in a video conference format: 80th meeting under the chairmanship of Tajikistan (May 11) and 81st meeting chaired by Uzbekistan (December 7). ICWC members from Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan²⁰, 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.

Agenda. 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. Based on the information provided by BWO Syr Darya and BWO Amu Darya, the Commission summarized the results for the non-growing season 2020-2021 (80th meeting) and the growing season 2021 (81st meeting). BWO Syr Darya was to submit to the Kazakh and Tajik parties a

 $^{^{20}}$ Since the 68th meeting, representatives of the Kyrgyz Republic have not taken part in ICWC activity

ICWC members in 2021 Yerlan Serik Diamshed Shavkat Guizgeldy N. Baijanov, N. Nysanbayev, S. Kojaniyazov, Sh. Shoimzoda, R. Khamraev (since (since (since 2005) (since (since October 6, 2020) January 27, 2021) November 3, 2020) February 7, 2020) Vice-Minister Vice-Minister First Deputy Minister Chairman of the Minister of Water State Committee of Ecology, of Ecology, of Energy and Management of Water Geology Geology Water Resources and Natural and Natural Management Resources Resources

detailed calculation based on the results of the growing season 2021 for identifying inconsistencies in inflow to the Shardara reservoir along the Bakhri Tochik-Shardara reach (81st meeting).

For the growing season 2021 (80th meeting), the limits of country water withdrawals were approved and the proposed by BWO Amu Darya and BWO Syr Darya forecast operation regimes for the reservoir cascades in the both rivers were taken into account. Based on more accurate forecast data on water availability, ICWC members have agreed to consider additionally and agree upon the operation regimes by the end of May. The information by BWO Syr Darya on progress in drafting proposals for water withdrawal limits for the Karadarya River and the Chirchik River were taken into account. The proposals were to be submitted to ICWC members for consideration and approval of the water withdrawal limits since 2022.

For the non-growing season 2021-2022 (81st meeting), the limits of country water withdrawals were approved and the proposed by BWO Amu Darya and BWO Syr Darya forecast operation regimes for the reservoir cascades in the both rivers were taken into account. BWO Syr Darya is "to provide the Kazakh side with a detailed calculation explaining why, given that the forecast of water discharge from Bahri Tochik at the beginning of December was 100% correct, the forecast of inflow to the Shardara reservoir for the same period of time was not correct and, in fact, the inflow was 628 Mm³ lower than the forecast."

As to reaching agreement on the sanitary flow in the Syr Darya basin, the Kazakh side was to provide ICWC members with additional information on the need to make efforts for determination of sanitary flow along the river courses in the basin and its approval with the relevant national agencies (81st meeting).

At the 80th and 81st meetings, ICWC members took into account the information by SIC ICWC on progress in implementation of proposals and initiatives put forward at the Summit of the Heads of IFAS founderstates and noted the satisfactory work of ICWC organizations in this area.

In line with the decision of the 80th meeting (1) SIC ICWC was to prepare ToR for a feasibility study on automation of gauging stations in the Syr Darya Basin, including small rivers; and, (2) BWO Amu Darya and BWO Syr Darya together with SIC ICWC were to define more precisely the actual water losses along the Amu Darya and the Syr Darya.

The 81st meeting took into account the draft Concept presented by SIC ICWC on celebration of the Commission's 30th anniversary. The members decided to hold the next 82nd ICWC meeting in Turkistan city, Republic of Kazakhstan combined with the 30th ICWC anniversary. The Kazakh side's proposal to nominate candidates for training at GKU in Almaty, as well as to take efforts to mobilize financing for the resumption of training courses and exchanges between national experts was also supported.

3.3.2. Activities of ICWC Executive Bodies in 2021

Executive bodies of ICWC

BWO Amu Darya Responsible for routine management and distribution of water resources among the riparian states, timely and reliable delivery of water, according to the agreed limits, to users, and provision of sanitary and environmental flow for Prearalie and the Aral Sea. Established in September 1, 1987, with the headquarters in Urgench and four territorial divisions.

BWO Syr Darya Responsible for routine management and distribution of water resources among the riparian states, timely and reliable delivery of water, according to the agreed limits, to users, and provision of sanitary and environmental flow for Prearallie and the Aral Sea. Established in September 1, 1987, with the headquarters in Tashkent and four territorial divisions.



Responsible for fulfillment of ICWC assignments, preparation, together with other executive bodies, of programs, measures and draft decisions for ICWC meetings, control over the flow of funds from ICWC founding states for financing of ICWC executive bodies (allocated for field operations, capital repairs, etc.), and coordination of international contacts. Established by the decision of the 6^{th} ICWC meeting on the 10^{th} of October 1993 in Dushanbe.



Responsible for backstopping of ICWC activities on regional and global stages. Contributes to transboundary water cooperation and sustainable water management in Central Asia through information support, training, networking, research, and expertise. Established on the 5th of December 1992, with the headquarters in Tashkent and 3 branches.



Coordinates and implements technological policy in the field of metrological support to ICWC programs and decisions on the use, protection and accounting of water resources in sources and systems. Established on the 23rd October 1999, with the headquarters in Bishkek.

BWO Amu Darya

Activity of BWO Amu Darya in 2021

BWO Amu Darya continued working on distribution of water among the states, control in real-time regime of observance of the established water withdrawal limits (see Water-Related Situation in the Amu Darya and the Syr Darya River Basins) and on modernization and operation of waterworks facilities under its responsibility. BWO Amu Darya contributed to two ICWC meetings in 2021 (see ICWC meetings). Also, seven meetings of water management organizations responsible for the river's lower reaches were held to address water allocation matters.

In the course of the year, BWO Amu Darya maintained cooperation with national water agencies of Tajikistan, Turkmenistan, and Uzbekistan, national hydrometeorological services, SIC ICWC.

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

BWO Syr Darya

Activity of BWO Syr Darya in 2021

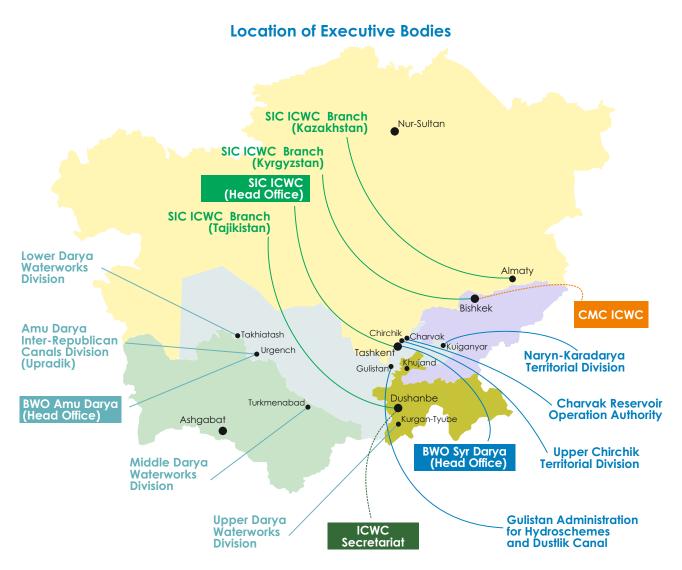
BWO Syr Darya and its territorial branches kept maintaining waterworks facilities, including canals, gauging stations, communication facilities, buildings and other structures under responsibility of the organization to ensure the sound use of water resources and trouble-free and sustainable supply of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

Collective governance. In order to ensure unbiazed and efficient transboundary water governance in coordination with the Uzbek Ministry of Water Management and the Kazakh Ministry of Ecology, Geology and Natural Resources, Mr. M.E. Imangaliyev, representative of the Republic of Kazakhstan, has been engaged in activities of BWO Syr Darya as a deputy head since December 10, 2020.

ICWC meetings. BWO Syr Darya took part in preparation of 80th and 81st 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 2021, with account of the expected low-water conditions (forecast and actual), and the non-growing seasons 2020-2021 (actual) and 2021-2022 (forecast) were submitted for consideration and approval. BWO Syr Darya used in their reports the forecast and actual data from UzHydromet, CDC "Energy", Ministry of Water Management of Uzbekistan, and Ministry of Ecology, Geology and Natural Resources of Kazakhstan.

Repair and rehabilitation operations. The territorial branches of BWO have completed repair and rehabilitation of 30 hydraulic structures, undertook current planned repairs of 23 buildings and control stations, and performed mechanical cleaning of 18 canals.

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 (1) four structures of the Gulistan Waterworks Facility and Dustlic Canal Authority (K-1, K-3, Right-bank offtakes of the South Golodnostepskiy Canal (SGC) and the Dustlic canal); (2) 7 hydraulic structures (02-rod, head structures of Big Fergana Canal on the Naryn River and Zardarya canal on the Syr Darya River; (3) 1st head structure of the Parkent canal.

Reconstruction and modernization. As part of an investment program, the reconstruction of spillway and construction of a protection structure downstream of Kuyganiar hydroscheme to prevent erosion in Andizhan district, Andizhan province have been completed.

In line with the Governmental Decree of December 28, 2020 on measures for development of socio-production infrastructure in the Republic of Uzbekistan in 2021-2023, the construction work and modernization of the automation and control system have been completed under the "Reconstruction and modernization of the head structure at DP 145 of SGC in Shirin town, Syrdarya province".

Additionally, the construction work under the "Reconstruction and modernization of the head structure at the Dustlik canal in Bekabad district, Tashkent province" has been started.

ASBP-4. The data sheets with project proposals prepared jointly with SIC ICWC, Uzbek Hydrometeorological Service and other concerned institutions were included in the ASBP-4 approved by the decision of the IFAS Board on June 29, 2021, namely: 1.3. "Provision of dam and large hydraulic structure safety in Central Asia: capacity building and regional cooperation"; 1.6. "Automation of water distribution, accounting and monitoring in the Syr Darya Basin. Development of national water information systems as the basis for the regional information system."

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

ICWC Secretariat

Activity of the Secretariat in 2021

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.

The Secretariat also took part in (1) the national workshop on coordination of reforms in the water sector aimed at ensuring a coordinated approach to implementation of IWRM in line with the National Development Strategy of the Republic of Tajikistan until 2030

(March 12, Tajik Ministry of Energy and Water Resources together with UNDP); (2) the seminars of the Tajik branch of SIC ICWC on "Automated system of water distribution regulation and management and data transmission to DP-7 in Yavan district, Tajikistan" and "Application of the geoinformation system"; (3) the Central Asian Sub-regional Preparatory Conference for the 9th World Water Forum (October 19-20, Dushanbe).

The roundtable on "Progress in sustainable development goals and the tasks related to water and sanitation with the involvement of women in Tajikistan" was held on August 28.

Source: ICWC Secretariat

Scientific-Information Center of ICWC

Activity of SIC ICWC in 2021

ICWC Working Groups. The work was continued in four areas of the "Implementation Plan on strengthening ICWC activities in key directions": (1) Water conservation – published review "Water conservation in Uzbekistan: theory and practices"; (2) Implementation of integrated water resource management and adaptation to climate change – published analytical review "Theory and practices in planning IWRM", articles^{21,22} of V. Dukhovniy "Implementation of IWRM in the Aral Sea Basin" and N. Mirzaev "Lessons from implementation of IWRM in the Fergana Valley"; "Comparative analysis of WUA irrigation service pricing methods", "Assessments and challenges in planning integrated water resources management", "Analysis and assessment of water losses in the irrigation network"; (3) Improvement of water accounting quality and accuracy - prepared draft terms of references for the automation of gauging stations in the Syr Darya River basin, including small rivers, published review "Summarizing current practices of water accounting and reporting" and the article "Automation of the Syr Darya and the Amu Darya"; (4) Building capacity of regional and national organizations published review "International experience in engineering education".

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. In particular, SIC prepared analysis on the water-related situation in the region for growing (2021) and nongrowing (2020-2021) seasons. Routine analysis reports on basin situation are published for each ten-day period on the SIC ICWC web-sites in sections "Water-related situation in the Amu Darya River Basin" and "Water-related situation in the Syr Darya River Basin". The RS-based monitoring of lakes and wetlands in the Aral Sea region has been conducted and the results

have been published on: www.cawater-info.net/aral/data/monitoring_amu.htm. See details in Water-Related Situation in the Aral Sea Basin.

SIC ICWC contributed to activities following the Joint Communiqué adopted at the Summit of the Heads of IFAS Founder-States and to implementation of the CA presidents' initiatives and reported on its contribution to ICWC meetings. Technical, information and expert assistance was rendered to **national and regional organizations** through timely provision of relevant materials on their request. In particular, information and analytical materials and expert opinions were provided on matters related to:

fulfillment of laws and bylaws of Uzbekistan: incl. Resolution of the Cabinet of Ministers on measures for agricultural digitization in the Republic of Uzbekistan; Decree of the President on measures for water management improvement in the Republic of Uzbekistan to increase drinking water supply and quality and draft Resolution of the Cabinet of Ministers on formation of a national water balance of the Republic of Uzbekistan; Resolution of the Cabinet of Ministers on measures for operationalization of the Research Center for Water Problems at the Cabinet of Ministers; Resolution of the President on approval of the Strategy of Water Management and Irrigation Development in Uzbekistan for 2021-2023; draft Concept on National Management Information System of the Water Sector; draft Resolution of the government on measures for further improvement of activity of the Uzbek Ministry for Water Management; Resolution of the government on measures for implementation of UNGA Special Resolution of 18 May 2021 on declaring the Aral Sea region a zone of environmental innovations and technologies; and, draft Law on water and water use. Additionally, SIC ICWC is a member of the Interdepartmental working group, which develops the Water code;

- the Sardoba dam collapse: prepared comments to the document of the National research society at the Moscow State University of Civil Engineering entitled "R&D support of rehabilitation of the Sardoba dam" and an opinion on possible causes of the collapse;
- water supply of the Amu Darya delta and its lakes: SIC ICWC repeatedly appealed to concerned ministries and departments of RUz emphasizing the need to strengthen control over water distribution along the Amu Darya River to ensure availability of sanitary-environmental flow downstream of Takhiatash and Samanbay. As a potential additional water source, it was proposed to consider the proposal of JSC "Uzsuvloyiha" and SIC ICWC on transferring water from the Ozerniy collecting drain in Khorezm province to the delta of the Amu Darya and the Aral Sea region. This would contribute additional 4.5 km³ of water:

²¹ EECCA NWO Collection of scientific papers "Lessons of transboundary cooperation in EECCA countries", Issue 15, – Tashkent: SIC ICWC, 2021. – 212 p., http://www.cawater-info.net/library/rus/eecca_papers_collection_vol_15_2021.pdf

²² Collection of scientific papers, Issue 18, – Tashkent: SIC ICWC, 2022 – 141 p., http://www.cawater-info.net/library/rus/sb_tr_18.pdf

- water-energy, particularly, on the document "Assessing water-energy policies of Kazakhstan in Central Asia":
- allocation of water for the Aydar-Arnasay lake system: prepared information on existing compliance practices in water allocation between the riparian countries in the Syr Darya river basin and gave proposals to the analysis of relations between Kazakhstan and Uzbekistan.

Information and analytical activity. The regional information system on water and land use in the Aral Sea basin (CAWater-IS) has been populated with the information on (1) Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan for 2020 in the Economy block; (2) weather stations (monthly); (3) Amu Darya, Syr Darya, Kashkadarya, Surkhandarya, Chirchik, and Karadarya rivers over 2019-2020; (4) water supply to the Aral Sea and the Amu Darya and the Syr Darya deltas over growing and non-growing seasons. The information on water-related situation was published weekly in the information newsletter "Water management, irrigation and ecology in the EECCA countries". SIC ICWC has prepared and issued 17 analytical reviews: "Water, food, and energy security in CA: benefits of nexus-based decisions", "Planning IWRM", "Water conservation in Uzbekistan", "International experience in engineering education", "Key highlights in the statements made at the general debate of the UN General Assembly by the countries of Central Asia in 1992-2020", "Highlights on the environmental matters and international cooperation in the statements made at the general debate of the UN General Assembly by the Countries from Eastern Europe, Caucasus and Central Asia in 1992-2020".

Information and publication activity. The Center continued providing support to ICWC by publishing and disseminating information materials and by further developing databases and the knowledge base, analytical tools and models, such as the ASB management model (ASBmm) and the WUEMoCA tool, and regional web-resources, including the CA water and environment knowledge portal (CAWater-Info), ICWC, SIC ICWC, and EECCA NWO web-sites.

The knowledge base "Water in Central Asia" was enriched with 1,341 new entries, such as monographs, research papers, manuals, reference documents (guidelines, recommendations, etc.) and other publications.



Project activity:

"Support to the development of a discussion paper to inform a dialogue on regional cooperation on the energy-water-land use nexus in Central Asia"

- under the contract with OECD. Jointly with national experts in CA countries prepared (1) energy-waterland use nexus fact sheets; (2) Discussion paper "Water, Food and Energy Security in Central Asia: Background Analysis Benefits of Cross-Sectoral (Nexus) Solutions", which was presented at the regional conference "High-level dialogue on effective development of energy, water and land resources in CA countries" (October 15, Tashkent).
- "Support to the Network of Russian-speaking water management organizations and organization of the Network's conference in 2021" as part of EECCA NWO activities supported by UNECE. SIC organized the International EECCA NWO Conference 'Transboundary water cooperation in EECCA countries: lessons learnt and future development" (March 2-3, online); published collections of papers "Lessons of transboundary cooperation in EECCA countries" and "Selected practices of IWRM and transboundary water cooperation in EECCA countries". Continued maintaining and updating the network's web-site, the knowledge base of the CAWater-Info portal as one of the sources of knowledge of EECCA NWO, the Atlas of water-management and environmental organizations in the EECCA countries, populated pages on Facebook and LinkedIn, disseminated weekly e-newsletter "Water management, irrigation and ecology in the EECCA countries". Created the website of the Expert Platform on Water Security, Sustainable Development and Future Studies and the database of international experts. As part of the Expert Platform, conducted research of "Key highlights in the statements made at the general debate of the UN General Assembly by the countries of Central Asia in 1992-2020" and "Highlights on the environmental matters and international cooperation in the statements made at the general debate of the UN General Assembly by the Countries from Eastern Europe, Caucasus and Central Asia in 1992-2020".
- "Research on More Precise Definition of the River Water Balance Components for the Amu Darya and its Main Tributaries and Development of XLSX Routine" under the contract with BWO Amu Darya. Developed the methodological and information base for calculating components of river and reservoir water balances for 4 balancing sites, starting from Kelif g/s to Samanbai g/s, as well as the recommendations on estimation of water losses.
- "Development and Adoption of a Water Use Plan and Organization of Water Accounting to Control the Actual Distribution of Water" under the contract with TCT Cluster. Completed work on (1) organization of efficient water use in the agricultural cluster; (2) arrangement of regular water accounting, monitoring, assessment and on-the-fly adjustment depending on water-related situation in the region; (3) development of a computer routine for water use planning; (4) analysis and identification of challenges before planning and fulfillment of water use plans. Developed recommendations on organization of water accounting to control the actual distribution of water and on repair and rehabilitation of canals, including hydraulic structures and metering facilities. Conducted training workshops for hydraulic engi-

neers/water managers in planning water use and measuring water discharge.

- "Drafting of Aral Sea Basin Transboundary Water Early Warning Bulletins" under the contract with UNRCCA. Published four e-bulletins containing the information on actual situation in the Amu Darya and the Syr Darya basins for the current month and the forecast for the next month.
- "2020 Water Yearbook: Central Asia and around the Globe" under the contract with UNRCCA. Collected and processed materials to generate analytical and thematic reviews in both Russian and English.
- "Identification of Future Water Needs in the CA Countries and Development of Optimization Simulation Models for Efficient Utilization of River Potential in the Aral Sea Basin" under the contract with AO Gidroproyekt Institute (client EDB). Provided analysis of water situation in the Aral Sea Basin. Assessed water needs in ASB countries by 2030, including the forecasts of (1) dynamics of irrigated land area and crop production; (2) population growth; (3) industrial production and unit water consumption growth.
- "Development of E-rules of Intra-Annual Flow Regulation in the Amu Darya River Basin" jointly with the Institute of Geographic Sciences and Natural Resources Research of the Chinese Academy of Sciences (IGSNRR, CAS). Completed (1) quantitative assessment of natural water resources of the Amu Darya River and determined the share of the glacial component in the river runoff; modeled series of the annual river flow and its intra-annual distribution for 2020-2035; (2) assessment of water consumption in transboundary rivers of the Amu Darya basin, determined environmental requirements and estimated needed water supply to South Aral region (Amu Darya delta) and Large Aral Sea based on the condition of stabilization of its water regime; (3) assessment of water losses in the Amu Darya river and reservoirs of Tuyamuyun Hydroscheme using the data from the past research. Developed (1) the model and algorithms for planning flow distribution and regulation; (2) the model for operational management allowing correction of initial plan of water distribution and flow regulation by reservoirs; (3) the dynamic model and an algorithm for calculation of daily river hydrograph transformation in space and time.
- "Support to the preparation phase of the IKIfunded project on the energy-water-land nexus transformation in Central Asia"²³. Prepared for the CA countries (1) draft mapping of actors and stakeholders in each beneficiary country in water, energy and land use, adaptation policies; (2) database of projects implemented by international partners in the CA

countries in similar areas over the last 5 years. Support rendered in organization of meetings with potential partners in the course of project document development (in Bishkek, Dushanbe and Ashkhabad). The work will be continued in 2022.

"Uzbekistan Water Security Outlook" under the contract with UNESCO. Developed methodology for assessing water security in Uzbekistan on the basis of available statistics. Identified key dimensions of water security and selected indicators/sub-indicators characterizing (quantitatively and qualitatively) the key dimensions. The work will be continued in 2022.

Capacity building and training. The web-site developed by SIC on capacity building and training was further enriched and populated. SIC staff improved its qualifications through training in 15 online workshops and webinars. (see Professional Development Courses and Trainings in 2020). SIC's experts made more than 20 reports and presentations at different international events. The following events were held: (1) the International Conference of EECCA NWO (online, March 2-3), OECD expert workshop (June 8), OECD regional conference (October 15), and a roundtable in the memory of Prof. Dukhovniy (November 25).

SIC maintained cooperation with the Corvinus University of Budapest as part of the research programme focusing on "Water as a driver of sustainable recovery: economic, institutional and strategic aspects of water resources management in Central Asia", the International Institute of Central Asia.

Regional and international cooperation

SIC kept maintaining cooperation with embassies, international organizations and financing institutions and took part in activities of OECD²⁴, UNESCO, INBO and IWRA, EECCA NWO, GEF Agency, GWP, and NWP of Uzbekistan.

As part of cooperation with (1) EC IFAS, SIC participated in the Working Group on institutional and legal improvement of IFAS, in preparing the Position Paper "Vision of Central Asia" for the 9th World Water Forum, the Central Asian sub-regional preparatory conference (October 19-20, Dushanbe). See Executive Committee of IFAS; (2) UNECE and the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes, D.R. Ziganshina was re-elected as a member of the Implementation Committee and participated in its meetings (February 4-5; May 20-21) and activities of expert groups. The information on "Advisory assistance of the Implementation Committee to Albania and Montenegro regarding the shared Cijevna/Cem River basin" was prepared; (3) ICID, SIC coordinates acti-

As part of the project submitted in 2019 on topic 4.7. "Regional mechanisms for the low-carbon, climate-resilient transformation of the energy-water-land Nexus in Central Asia" under the tender announced by International Climate Initiative 2020, Government of Germany

As part of preparatory phase of the project on topic 4.7

vity of the ICID Working Group on irrigation and drainage in the states under socio-economic transformation (WG-IDSST). Deputy Director Sh. Kenjabaev made presentation (April 23), took part in the 3rd meeting to discuss the ICID initiative on registration of the world large-scale irrigation projects in the online Register of the world irrigation and drainage schemes to share experiences in implementation of irrigation projects (November 28, Marrakesh, Morocco), webinars (January 21, February 19, May 28, June 17), the 5th African Regional Conference and the 72nd meeting of International Executive Council of ICID (November 24-30, Marrakesh, Morocco); (4) ADB and CAREC, prepared comments and proposals to the Preliminary Report on Developing the Central Asia Regional Economic Cooperation Water Pillar. SIC took part in the introductory regional consultative meeting "Introduction to the Water Pillar" (April 16) and the second consultative meeting (September 14) where comments and proposals received to the preliminary report were considered and next steps for developing initial projects for inclusion in the Water Pillar were discussed.

SIC had meetings with (1) Ambassador Guy Bonvin, the Swiss Special Envoy for Water in Central Asia, with whom such aspects of water cooperation development as automation, GIS, and Aral Sea bed monitoring were discussed (September 20); (2) Dr. P. Liebelt, Head of Central-Asian Sustainable Innovation Bureau (CASIB), to discuss how to boost innovations transfer in the sphere of sustainable development in Central Asia, expand research networks and enhance cooperation between German and Central-Asian organizations (September 21); (3) V. Caupin, Head of AFD Office in Uzbekistan (September 31); (4) Mr. A. Makarigakis, Head of Office and UNESCO Representative a.i., to discuss prospects for cooperation and progress on Uzbekistan Water Security Outlook (October 7, 22); (5) Ms. L. Gampp, Regional Water and Climate Change Advisor for Central Asia, SDC, to address cooperation prospects in view of the new SDC Strategy (November 18). Additionally, Dr. Ziganshina had an interview with R. Bosch and N. Swenson, experts for capitalization of the Swiss Blue Peace Central Asia (April 13).

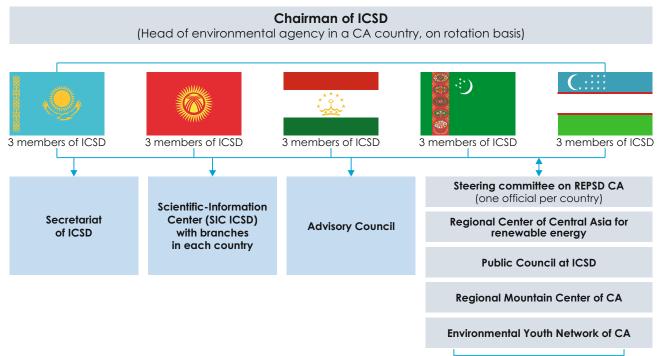
Publications. SIC's experts published 26 papers, including 7 papers in international journals and 19 ones in Uzbekistan. SIC also issued 33 publications in 2021.

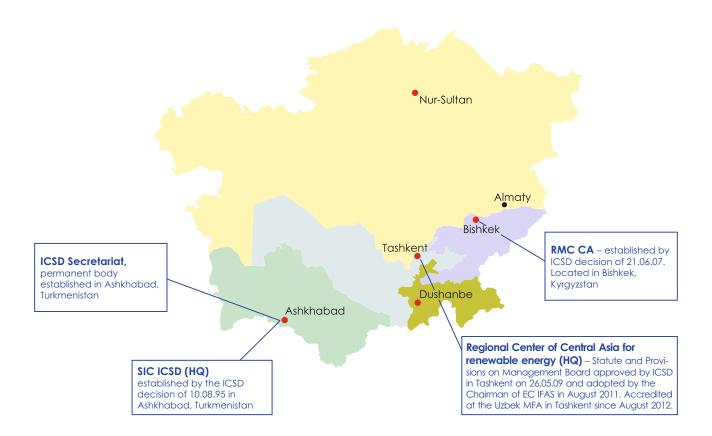
Source: SIC ICWC

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 was chairing ICSD over 2020-2021 (30th ICSD meeting, 24 October 2019, Nukus).





Activity of ICSD in 2021

Regional Environmental Program for Sustainable Development (REP4SD) in Central Asia. The draft REP4SD²⁵ is a policy paper, which sets the priority areas of environmental cooperation until 2030. Among the Program's advantages is the joint solution of topical challenges to ensure security, stability and sustainable development in CA, the regional approach to implementation of SDGs and UN Conventions, the enhancement of ASBP-4 environmental component, and building of capacities of ICSD as a regional institution. The Program was agreed among the respective countries in comformity with their national procedures and submitted to EC IFAS for further approval by the Board.

To maintain cooperation and coordinate activities on REP4SD, it was decided to establish an **ICSD Advisory Council**²⁶ 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 March 11. During the meeting, members of the Council discussed the possibilities of cooperation with international and regional partners within the framework of REP4SD.

The single Roadmap for implementation of REP4SD, the system of indicators and the data collection methodology²⁷ for implementation and monitoring of REP4SD were developed. The workshop on "Indicators, their types and use in monitoring and assessing environmental policy papers" was also held on February 9.

The Regional Strategy for drought risk management and mitigation in Central Asia for 2021-2030 and the Regional Midterm Strategy for sand and dust storm management in Central Asia developed as part of the "Regional Approaches for Combating Sand and Dust Storms and Drought" Project²⁸ have been integrated into REP4SD and will contribute to achievement of transboundary cooperation related SDGs.

International cooperation. The Memorandum of cooperation in the area of environmental protection, climate resilience, and sound nature use was signed between ICSD and GIZ on the sidelines of the Fourth Central Asia Conference on Climate Change (July 26-27, Dushanbe). One of the key areas is to facilitate the implementation of REP4SD. Cooperation was also envisaged under a range of regional programs worth more than US\$20 million, such as Integrative and Climate-sensitive Land Use in Central Asia, Ecologically Oriented Regional Development in the Aral Sea Region; Green Central Asia; Supporting Green

 $^{^{\}rm 25}$ Approved by the decision of ICSD No.2 of 24 October 2019

²⁶ Provision on the ICSD Advisory Council approved by the decision of ICSD No.3 of 24 October 2019

 $^{^{27}}$ As part of the Regional Programme "Integrative and Climate-sensitive Land Use in Central Asia" supported by BMZ from March 2021 to February 2024

²⁸ Implemented by CAREC

Economy in Kazakhstan and Central Asia for low carbon economic development.

With CAREC's support, the regional statement of the Central Asian countries on climate change "The Voice of Central Asia" was presented in the Central Asian Pavilion "5 countries-1 region-1 vote" at COP26. This regional statement reflected the countries' inten-

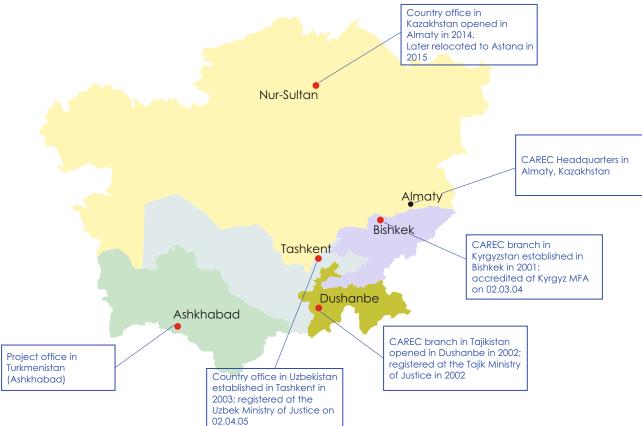
tion to consolidate regional cooperation in fighting climate change and contribute to sustainable development and the commitments to green growth. The countries also called the donors, international financing institutions and UN agencies to support regional efforts on climate change.

Source: Secretariat and SIC ICSD, https://sic-icsd.org/

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 2021

Regional dialogue on water. CAREC continued serving as a Secretariat to the Dialogue Platform Blue Peace Central Asia. During online and offline meetings, experts from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan discussed progress in water quality management, monitoring and data exchange, water quality classification, and possibilities for transboundary cooperation. As part of the World Water Week, two thematic sessions were organized to address the strategic issues of water management in the post-Pandemic period and the key elements of informed water cooperation. The preparatory process of the CA countries to the 9th World

Water Forum was also supported with a session on transboundary cooperation to formulate key points of the final regional document to be presented at WWF in Dakar, Senegal on March 21-26, 2022.

With the support of SIWI, OSCE and CAREC have launched the joint Mentoring and Career Development Programme for women water professionals in Central Asia and Afghanistan. Women from Central Asia and Afghanistan will enhance their professional qualifications and skills to ensure their fruitful work in leadership positions. Training webinars with international and regional experts on water and career development were held every month.

The Nexus Dialogue in Central Asia Project, Phase II has held 10 regional and transboundary dialogues in the Central Asian countries attended by over 250 people to discuss the mid-term results of thematic demonstration projects in CA.

Climate change. The Fourth Central Asia Climate Change Conference (**CACCC-2021**)²⁹ was held in Dushanbe, Tajikistan on July 26-27. This is the platform for the Central Asian countries to discuss climate strategies, policies, NDCs developed at the national level for the implementation of the Paris Agreement with the participation of civil society. See details in 2021 Calendar of Events.

Three meetings of parliamentarians and representatives of MFAs of the CA countries were organized on climate change issues in 2021. The parties exchanged on development of legislation and strategic planning on climate change and discussed the representation of the region in the international negotiation process (March 17, July 27, November 4).

CAREC together with partners organized the Central Asia Pavilion "5 countries – 1 region – 1 voice" at the COP26. The Pavilion has hosted 24 events attended by over 1,400 people. A number of agreements, including the Memorandum of Understanding on preservation of snow leopard, its food reserve and habitat in Western Tien-Shan and Pamir-Alay and the

Agreement on establishing Regional Climate Action Transparency Hub in Central Asia (ReCATH), has been signed. The CA countries voiced their consolidated position on climate change as one region through the Voice of Central Asia Regional Statement. NGOs announced the Regional Statement of Central Asian Non-Governmental Organizations on Climate Change urging the governments to enhance national and regional initiatives to avert the climate crisis in the region (November 1-12, Glazgow, Scotland).

Sustainable development. The Central Asian Leadership Programme (CALP) on environment for sustainable development is a flagship program of CAREC since 2010. The 12th CALP was focused on the issues of sustainable consumption and production, green economy, water and energy resources management and their significant impact on food supply and security, ecosystem services, transition towards a low-carbon, resource-efficient and circular economy.

CAREC has launched the EU's Project on Sustainable Consumption and Production practices in Small and Medium Businesses in Tajikistan and Uzbekistan (REAP). The Project aims to promote green development and sustainability in agrifood production and processing industry.

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

²⁹ Within the framework of the WB/IFAS project "Climate Adaptation and Mitigation Program for Aral Sea Basin" (CAMP4ASB)

