



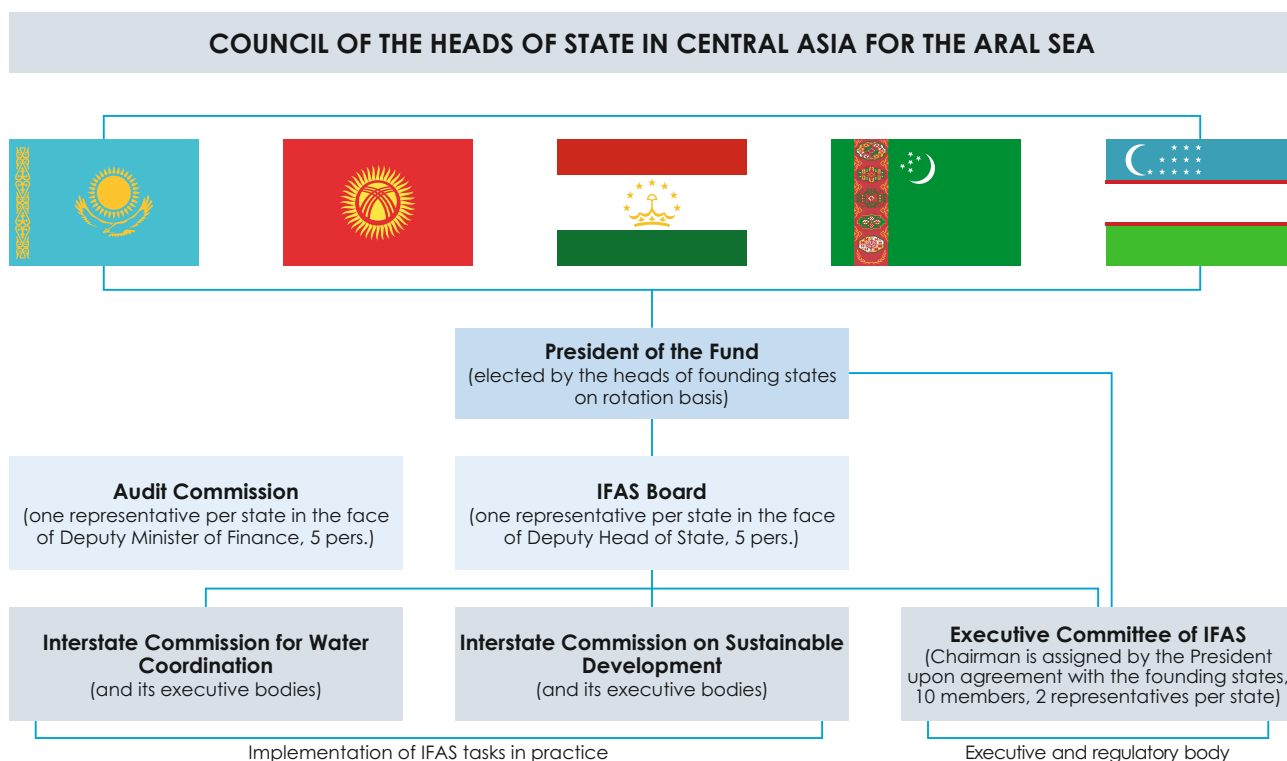
SECTION 3

IFAS and its
Structural Organizations

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, Uzbekistan). 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. Imple-

mentation of the initiatives in 2022 is discussed in the subsections of *Executive Committee of IFAS and its National Branches*, *ICWC of Central Asia* and *Key Water Developments in the Countries of Central Asia*.

3.1.2. IFAS Board

In 2022, 21st (February 22) and 22nd (November 28) meetings of the IFAS Board were held in Dushanbe. The following issues were addressed during the meetings: (1) interim results of EC IFAS activities in the period of the chairmanship of Tajikistan; (2) progress on imple-

mentation of the ASBP-4; (3) outcomes of the Working Group on Institutional and Legal Improvement of IFAS; (4) preparation of CA countries for the 9th WWF and participation of IFAS in the 2nd International High-Level Conference on the International Decade for Action

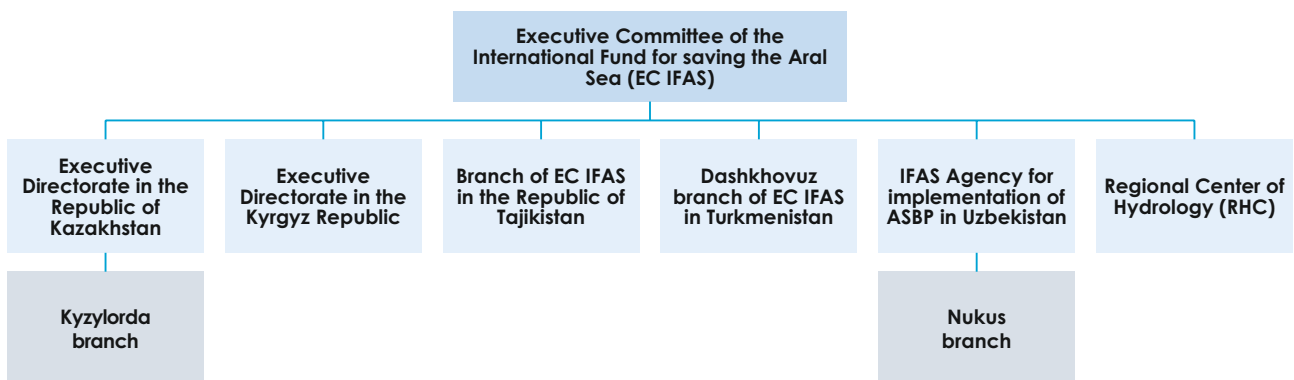
"Water for Sustainable Development", 2018-2028; (5) progress on preparation for the UN Water Conference to be held in March 2023 in New York; (6) preparation for the meeting of the Council of the Heads of the IFAS Founding-States in Dushanbe, scheduled for September

ber 14-15, 2023. Members of the Board endorsed the Regional Environmental Program for Sustainable Development in Central Asia, as well as the plan and composition of the Organizing Committee for organization of events dedicated to 30th anniversary of IFAS.

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



On September 28, 2020, Mr. Sulton Rakhimzoda was appointed **the Chairman of EC IFAS** by the Decree of the President of IFAS, the President of the Republic of Tajikistan. In 2022, the Heads of IFAS Founding States made a decision at their 4th Consultative Meeting to extend the mandate of the current IFAS President to one year (July 21, Cholpon-Ata, Kyrgyz Republic).

Activity of EC IFAS in 2022

Institutional and legal improvement of IFAS. Activities of the Working Group (WG) on Institutional and Legal Improvement of IFAS continued in 2022. The WG met three times: online on **January 27-28**; in Almaty, Kazakhstan on **June 23-24**; and, in Tashkent, Uzbekistan on **September 21-22**. There were also online task meetings and bilateral consultations. By December 2022, the 2nd stage of work focused on "identification of challenges/shortcomings in functions and tasks of IFAS' organizations" was *completed*. The ongoing 3rd stage of work is focused on more precise definition of

functions of existing and newly established organizations and on reaching agreement on goals and tasks/subtasks of IFAS. Discussions were *initiated* on the 4th stage of work aimed at developing and aligning proposals on the improvement of financing of IFAS governance. EC IFAS reported on WG's activities at the meetings of the IFAS Board.

ASBP-4 was developed in line with the decision of the IFAS Board of January 30, 2018 and approved by the decision of June 29, 2021. 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. The matters related to implementation of programs and projects under ASBP-4 and how to enhance monitoring and coordination of activities of development partners within the framework of ASBP-4 were addressed repeatedly at different events and meetings (see [Events](#)).

Events. EC IFAS **organized:** (1) the expedition of young CA scientists extending from the source of the Syr Darya River to the Aral Sea (May 19-31); (2) second and third coordination meetings of EC IFAS with international development partners, where implementation of development projects on ASBP-4 topics and progress on legal and institutional improvement of IFAS were presented; (3) regional workshop “Central Asia towards the UN 2023 Water Conference” (September 20, Tashkent).

In the course of the year, EC IFAS **took part** in a number of global and regional events, including, but not limited to: 2nd Asian International Water Week “Sustainable, clean and sufficient water for all” (March 13-16, online); 9th WWF, where EC IFAS organized the **pavilion** dedicated to the Aral Sea Basin and a **special session** entitled “Cooperation of the Central Asian countries to ensure water security in the context of climate change” (Dakar, Senegal); International Central Asian Conference “30-years of Water Cooperation among the Central Asian States: Facing the Future” (Turkistan, Kazakhstan); **World Water Week** “Seeing the Unseen: The Value of Water”, as part of which the Executive Committee organized its booth and a special session “Seeing the unseen: The value of water in development of regional cooperation in Central Asia” (August 31) and had meetings with the Chief of ADB’s Water Sector Group, Ms. Neeta Pokhrel (August 29), Rector of IHE-UNESCO Institute in Delft, Mr. Eddy Moors, and the Global Director for the World Bank Group’s Water Global Practice, Mr. Saroj Kumar

Jha (September 1); the United Nations Climate Change Conference COP27, where representatives of the Executive Committee participated in the: session “Bottom-up approaches to building resilience, adaptive capacity, and financing in water in Asia and the Pacific” (November 8), Eighth meeting of representatives of the ministries of foreign affairs and parliamentarians of the countries of Central Asia “On the way to regional coherence and cooperation of the Central Asian countries in climate policy, finance and implementation of Nationally Determined Contributions (NDCs)” (November 9), met with the Director for Environment, Natural Resources & Agriculture of the ADB’s Central and Western Asia Department, Ms. Yasmin Siddiqi (November 10), and organized, together with the Tajik Ministry of Energy and Water Resources, a session entitled “Development of water cooperation between the countries of Central Asia in the context of climate change” (November 14).

At EC IFAS office, chairman Mr. Sulton Rakhimzoda **had meetings** with high-level representatives of the High Level Panel of Experts and Leaders on Water and Natural Disasters (January 18); UNECE (April 6, November 2); World Bank’s Central Asian Water and Energy Program (May 17); State Water Committee of Turkmenistan (June 7); Ministry of Foreign Affairs of the Kyrgyz Republic (June 8); OSCE (August 17); UNDP (August 23); GIZ (August 24); and many others.

Source: <https://ecifas-tj.org/>, https://pt-br.facebook.com/ec.ifas/?ref=page_internal

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 Kazakhstani part of the Aral Sea basin. The focus areas of its activity and actions are aligned with those of EC IFAS and the ongoing operations are coordinated with the authorized representatives of Kazakhstan in EC IFAS.

Activity in 2022

Projects. Continued grant projects⁹ on the **Kazakhstani part of ASB:**

- North Aral Sea Development and Revitalization Project (WB and Government of RK, Kazakhstani part of the Aral Sea Region and Kyzylorda province):

the feasibility study developed with the involvement of the Iranian consulting company “Yekom Consulting Engineers” and the Kazgiprovodkhoz Design Institute is to be finalized in April 2023;

- “Environmental Restoration of the Aral Sea”¹⁰ (USAID, \$430 thousand) aimed at introducing innovative measures to create an “Oasis” (500 ha) using black saxaul in the Northern Aral Sea zone. To maintain the Oasis, a carbon certificate will be issued for the next 20 years;

- “Complex research assessment of natural and environmental criteria of the Kazakhstani part of the Aral Sea dried bottom (ASDB) using modern technologies of remote sensing and GIS in combination with

⁹ more detailed information on the project for 2022 is available on <https://kazaral.org/>

¹⁰ within the framework of the USAID Regional Water and Vulnerable Environment (WAVE) Activity

ground work"¹¹: based on field research (the route covered 2.5 thousand km and 87 key sites for detailed hydrological, soil and geobotanic studies), the Kazakhstani part of ASDB was fully mapped; the generated maps included: GIS-maps of climate characteristics, soil and prevailing formation rock maps, thematic hydrological map indicating levels and salinity of the nearest groundwater sites, and environmental risk zone maps;

- "Research of highly profitable and less moisture-intensive crops in the Aral Sea Region"¹² as part of the international project "Central Asia Sustainable Innovation Bureau (CASIB)" of the Berlin Initiative "Green Central Asia";

- "Studying interdependencies between climate change and degradation of land and water resources in the Aral Sea region" (UNDP Kazakhstan, \$50 thousand) aimed at supporting concerned government agencies and departments in preparation of research of climate change, land degradation and water resources in the Kazakhstani part of ASB and development of recommendations for adaptation;

- "From environmental crisis to restoration of prosperity in the Aral Sea region" under the contract with the Regional Center for Ecology and Protection of People's Health in the Aral Sea Region: laboratory analysis of land, water and air are conducted in seven districts of Kyzylorda province; health conditions and harmful effect of environmental disaster on people's health are monitored regularly.

A project proposal entitled "Development of oasis irrigation systems in desert territories of the Kazakhstani part of the Aral Sea region" (on the basis of a demonstration site in Kazalinsk district, Kyzylorga province) was submitted to the Embassy of Germany.

Events. ED IFAS took part in: (1) the roundtable entitled "Challenges and prospects of efficient water use in Kazakhstan and Central Asia: developing the international legal framework of cooperation" (April

22); (2) celebrations of the Aral Sea Day (March 26, Aral'sk), the Syr Darya Day (August 23-24) and the International Day of the World Wildlife Fund (September 11, Aral'sk); (3) a regional workshop on safety of hydraulic structures in Central Asia (30 November-December 1, Almaty); (4) an expedition from the flow formation zone of the Syr Darya River to the Aral Sea (November 13-17); (5) research expedition¹³ to the Northern Aral Sea area in Kyzylorda oblast to study the potential of environmentally safe and sustainable breeding of artemia and other aquaculture (September 19-23); (6) field trip to the Aral district of Kyzylorda oblast (October 21-22). ED IFAS organized an international scientific-practical conference "Environment and Health of Communities in the Aral Sea Region" (October 20, Kyzylorda) and the UNESCO field mission to the Barsakelmes State Nature Reserve to assess the nomination of "Turan Deserts" for the status of the UNESCO World Natural and Cultural Heritage (November 13-17).

Regional and international cooperation. ED IFAS maintains cooperation with international partners, local authorities, NGOs, academia and research institutes in implementation of projects under ASBP-4 and provides expertise for the improvement of IFAS activity.

Since 2020, the Executive Directorate has been contributing to activities of IWAC in Kazakhstan.

ED IFAS in Kazakhstan signed (1) a memorandum of cooperation on the development of water supply and sanitation and construction of a plant for the production of polyethylene pipes for drip irrigation with the Korean consulting company BLE Co., Ltd. (February 28); (2) a MoU with the Kazakhstan International Development Agency (KazAID) (June 30).

Media. Representatives of ED IFAS gave the interview on the topical issues in the Kazakhstani part of ASB (November 6) and took part in discussion of environmental matters on TV "Habar" (November 18).

Source: ED IFAS in RK, <https://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 in 2022 was in line with the financing plan for actions aimed at elimination of the environmental catastrophe of the Aral Sea, comprehensive socio-economic development in the Aral Sea region and

assistance to ASB countries for 2022-2024 (Governmental Decree of 07.02.2022).

Projects in the Aral Sea region are implemented jointly with the Nukus branch of EC IFAS. By the end of 2022, the total amount of financing (from the public budget and the Investment Fund for Development of Uzbekistan – as a contribution to IFAS) amounted to **66.45 billion Soum** (about **\$6.0 million**). The grant funds from donors accounted for **\$1.2 million** from

¹¹ as part of the GIZ regional project "Ecologically Oriented Regional Development in the Aral Sea Region" (ECO-ARAL), <http://kazaral.org/wp-content/uploads/2021/07/200118-ECO-ARAL-factsheet-EN.pdf>

¹² entitled "Kendirtex"

¹³ as part of the GIZ regional project "Ecologically Oriented Regional Development in the Aral Sea Region" (ECO-ARAL)

SDC, **€10.9 thousand** and **\$26.5 thousand** from GWP, and **€15 thousand** of OSCE's support.

Key ongoing projects:

- **“Construction of small local water bodies in the Amu Darya Delta. Phase II”**: (1) “Reconstruction of the Muynak Canal” – the work on reconstruction of 21.3 km of earthen channel and construction of 3 km of a new section to increase canal's capacity from 25 to 44 m³/s is to be completed in the first half of 2023; (2) “Reconstruction of a road dam around Maipost Lake and construction of a spillway structure on the Amu Darya River (Akdarya) and measures to prevent canyon formation processes in Domalak Lake” (re-estimated cost – 460.5 billion Soum) – construction of the road dam (10.6 km) and a spillway structure to pass 1,250 m³/s into the Amu Darya main is to be completed by the end of 2023¹⁴;

- **Afforestation**: (1) “Protective afforestation in Akhantai site” – on an area of 11,660 ha, 20 km north-eastward from the Muynak city; (2) “Protective afforestation in Akkum ridge” – on an area of 2,082 ha northward of the Sudoche lake system;

- **National Water Resources Management Project in Uzbekistan, Phase-2** (2020-2023, SDC grant, project site – 13 BISAs, 13 land reclamation field offices, 48 ISAs, and 155 district irrigation divisions): a draft of the Water Code of Uzbekistan have been prepared as part of work of the Interdepartmental Working Group; 13 demonstration sites were organized in farms, online trainings in software-based water use scheduling and webinars on water conservation technologies were conducted; demonstration polygons and laboratories on water conservation technologies were established in 9 professional colleges; users of the **TOMCHI mobile application** increased to 5 thousand;

- **“Monitoring of biodiversity of wetlands in the South Aral Region”** (together with the Karakalpak Natural Science Institute under OSCE's support): in the course of two field expeditions, the risk assessment for wetlands in the South Aral region was made and relevant recommendations were developed.

Cooperation through regional projects. The Agency actively cooperates with a number of international projects implemented in ASB, with the financial support of international agencies and banks. The cooperation is focused on exchanges of information and ideas with the teams of such projects.

Formation of an oasis in the Kazakhstani part of the Aral Sea dried bed is continued under the **USAID Regional Water and Vulnerable Environment Activity (WAVE)** (October 2020 – September 2025, \$24.5 mil-

lion). The Agency of IFAS contributed to the **sub-project** “Training for Government Officials from Central Asia on Water-Energy-Food-Ecosystems Nexus”¹⁵.

The Agency of IFAS (1) contributed¹⁶ to the “Ecologically Oriented Regional Development in the Aral Sea Project”/ECO-ARAL (2021-2024, GIZ) and the “Development of Innovative Climate Resilient Technologies for Monitoring and Controlling of Water Use Efficiency and Impact of Salinization on Crop Productivity and Livelihood in Aral Sea region” (2021-2025, JICA); (2) developed the rationale for the 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”** (2022-2026, UNDP-GEF, \$3,552,968), Component I. “Coordinated water resources management as a basis for achieving land degradation neutrality and biodiversity conservation”; (3) presented the information on the current situation in water in the Aral Sea region for “Water, Agriculture and Forestry Development in Northern Karakalpakstan” and “Climate Adaptation and Mitigation Program for Aral Sea Basin”/ CAMP4ASB (WB).

Activities in support of IFAS. The GEF Agency of IFAS took part in briefings and coordination meetings of EC IFAS and its organizations, as well as in activities of the working group on institutional and legal improvement of IFAS (see details in **EC IFAS**).

Political and civil engagement. The GEF Agency of IFAS took part in (1) 6 meetings of the Uzbek Parliament's Senate Committee on the Aral Sea region development and ecology¹⁷; (2) meetings of the Community Council at the State Environmental Committee of Uzbekistan; (3) activity of the Ecological Party of Uzbekistan¹⁸ and the Ecological Movement of Uzbekistan.

During the year, at the request of ministries and agencies, the GEF Agency of IFAS prepared proposals and analytical materials on the improvement of regional cooperation in water sharing in ASB, situation in water in the Aral Sea region, transboundary water cooperation, water-energy issues, situation around water use in Afghanistan, etc.

International cooperation. The GEF Agency of IFAS cooperated with the Uzbek branch of SIC ICSD; KOICA and GGGI on the “Green Rehabilitation Investment Project for Karakalpakstan Republic to address impacts of the Aral Sea crisis”; ADB and CAREC in preparation of the Water Pillar under the 2030 CAREC Strategy, etc.

In support of the Global Water Partnership (**GWP**), the GEF Agency of IFAS provides administrative management and facilitates implementation of the annual

¹⁴ given the additional money from the Fund for development and reconstruction of the Republic of Uzbekistan allocated in line with Presidential decree of 31.08.2022

¹⁵ the DKU-coordinated Project started on 2 December 2021

¹⁶ the Head of GEF Agency of IFAS, Mr. V. Sokolov is a member of the Steering Committee

¹⁷ Mr. V. Sokolov is a Deputy Chairman of the Committee's Expert Council

¹⁸ Mr. V. Sokolov is a member of the Executive Committee

work program of the National Water Partnership of Uzbekistan. In particular, the following events were organized: (1) (1) international workshop within the framework of the Future DAMS project in Central Asia: application of Python Water Resources ("Pywr") model in CA for technical assessment of water and energy solutions (March 28); (2) a workshop for discussion of the impact of drought on agriculture and other spheres of activity (April); (3) a workshop for incorporation of IWRM principles in development of the National Water Strategy of Uzbekistan for 2024-2026 (December 6-7). The GEF Agency of IFAS participated in Learning Labs on IWRM (GWP Toolbox) (June 20-22, Jakarta, Indonesia).

The GEF Agency of IFAS is an active member of the Asia Water Council (AWC)¹⁹. Mr. Sokolov took part in (1) two AWC Board of Council meetings; (2) the water project business forum as part of the 2nd AIWW – a project proposal titled "Monitoring of the ecosystem around the Western part of the Aral Sea" was presented there – and the fourth Asia National Assembly Water Consultative Board (AAWC) meeting (March 14-16, Labuan Bajo, Indonesia); (3) events of the

Korea International Water Week "Sustainable Water Management for Humans and Nature" (November 22-24, Daegu, South Korea).

The Agency also took part in the ICID's 24th Congress and 73rd International Executive Committee meeting (October 3-6, Adelaide, Australia). Mr. V. Sokolov became a member of the Working Group on the Aral Sea.

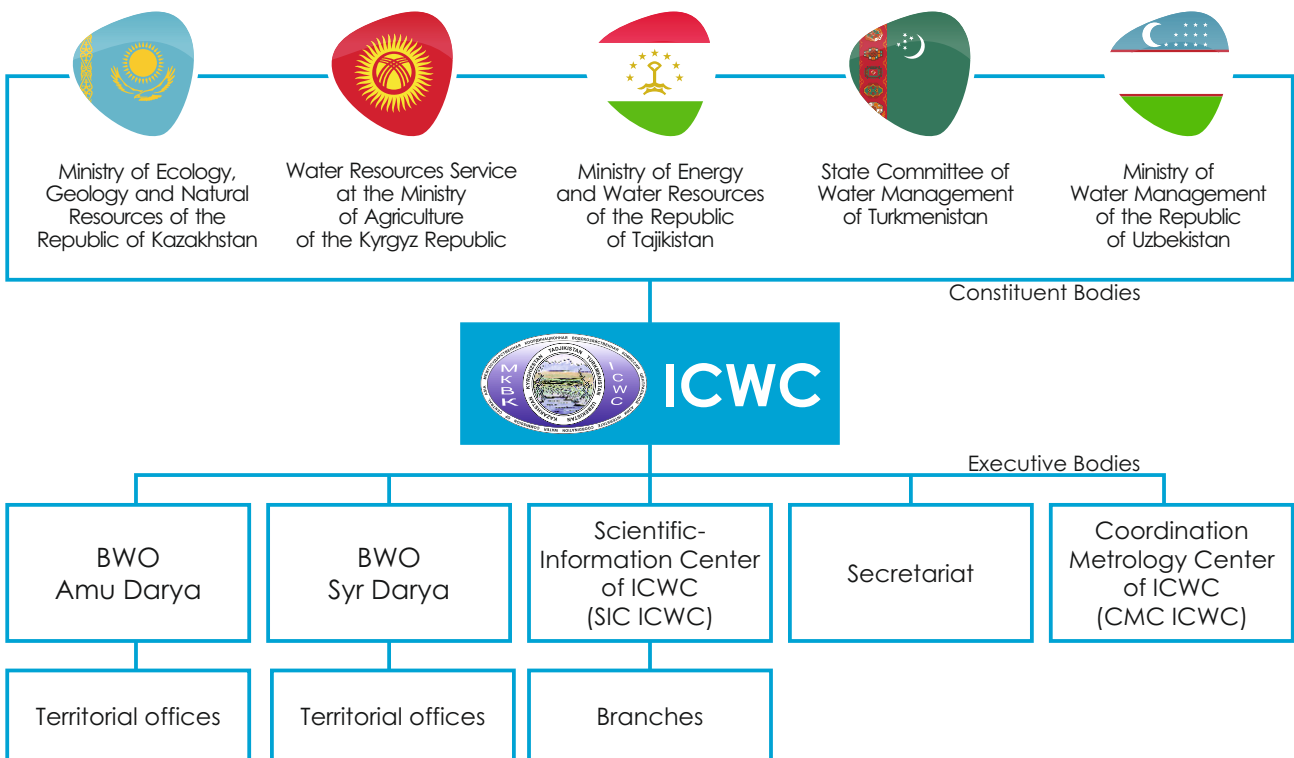
Media outreach. Events organized by the GEF Agency of IFAS were covered in media and on the web. Those included, in particular: the interview to the Chinese information portal China's Caixin Media, TV channels of Uzbekistan-24 and Dunyo, "Sreda.uz" Ecoportal.

Stories from the Salt of Land/Water Formula series were uploaded on the UZTREND information portal: on farmers and water saving technologies, on groundwater, etc.

Source: GEF Agency of IFAS, Report on Activity of the Agency of IFAS, https://aral.uz/doc/Report_of_Agency_2022.pdf

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.



¹⁹ Mr. V. Sokolov was elected Chairman of the AWC Special Committee on water-energy-food nexus and became a member of AWC Board of Council for 2019-2023

ICWC members in 2022



**Serik
S. Kojaniyazov,**
(since
January 27, 2021)
Vice-Minister
of Ecology,
Geology and Natural
Resources

**Serikaly
M. Mukatayev,**
(since
September 14, 2022)
Vice-Minister
of Ecology,
Geology and Natural
Resources



**Djamshed
Sh. Shoimzoda,**
(since
November 3, 2020)
First Deputy Minister
of Energy and
Water Resources



**Guizgeldy
N. Baijanov,**
(since
February 7, 2020)
Chairman of the
State Committee
of Water
Management

**Durdi
M. Genjiyev,**
(since
September 9, 2022)
Chairman of the
State Committee
of Water
Management



**Shavkat
R. Khamraev**
(since 2005)
Minister of Water
Management

3.3.1. ICWC meetings

In 2021, ICWC had two meetings: 82nd meeting (April 27, Turkistan, Kazakhstan) and 83rd meeting (November 22, Ashgabat, Turkmenistan). 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/quotas of water withdrawals and the operation regimes of reservoir cascades** in the Syr Darya and the Amu Darya basins (use of such water quotas in the past period and their approval for the next period).

Based on the information provided by BWO Syr Darya and BWO Amu Darya, the Commission summarized the **results of water quota use** in the *non-growing season 2021-2022* (82nd meeting) and the *growing season 2022* (83rd meeting). The members made decision on the matter raised by the Kazakh party regarding the **inconsistencies in river flow along the reach from the Toktogul reservoir to the Shardara reservoir** (82nd and 83rd meetings).

For the *growing season 2022* (82nd meeting), the **limits/quotas of country water withdrawals** were approved only for the Syr Darya River Basin; BWO Amu Darya and BWO Syr Darya informed on **forecast operation regimes for the reservoir cascades** in the both rivers. It was decided that on the basis of the updated data on water availability, the members would agree ad-

ditionally, by the end of May, on operation regimes of reservoir cascade and the country water withdrawal limits/quotas.

BWO Syr Darya informed on the measures taken by the parties to ensure additional discharges from the reservoirs during the growing season. Also, BWO Syr Darya shall regularly inform the Tajik side about the protocols signed regarding the operation regime of the Toktogul reservoir, since the operation regime of the Bakhri Tojik reservoir, among other things, depends on the implementation of these protocol decisions.

For the *non-growing season 2022-2023* (83rd meeting), the **limits/quotas** 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. Turkmen and Uzbek sides agreed to form a Working Group for water withdrawals from the Amu Darya river for Surkhandarya province, Uzbekistan. Decisions on water withdrawals for Surkhandarya province shall be accepted by the conclusion of the Working Group and with notification of the Tajik side.

At the 82nd and 83rd 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 founder states*. It was decided that "ICWC members and

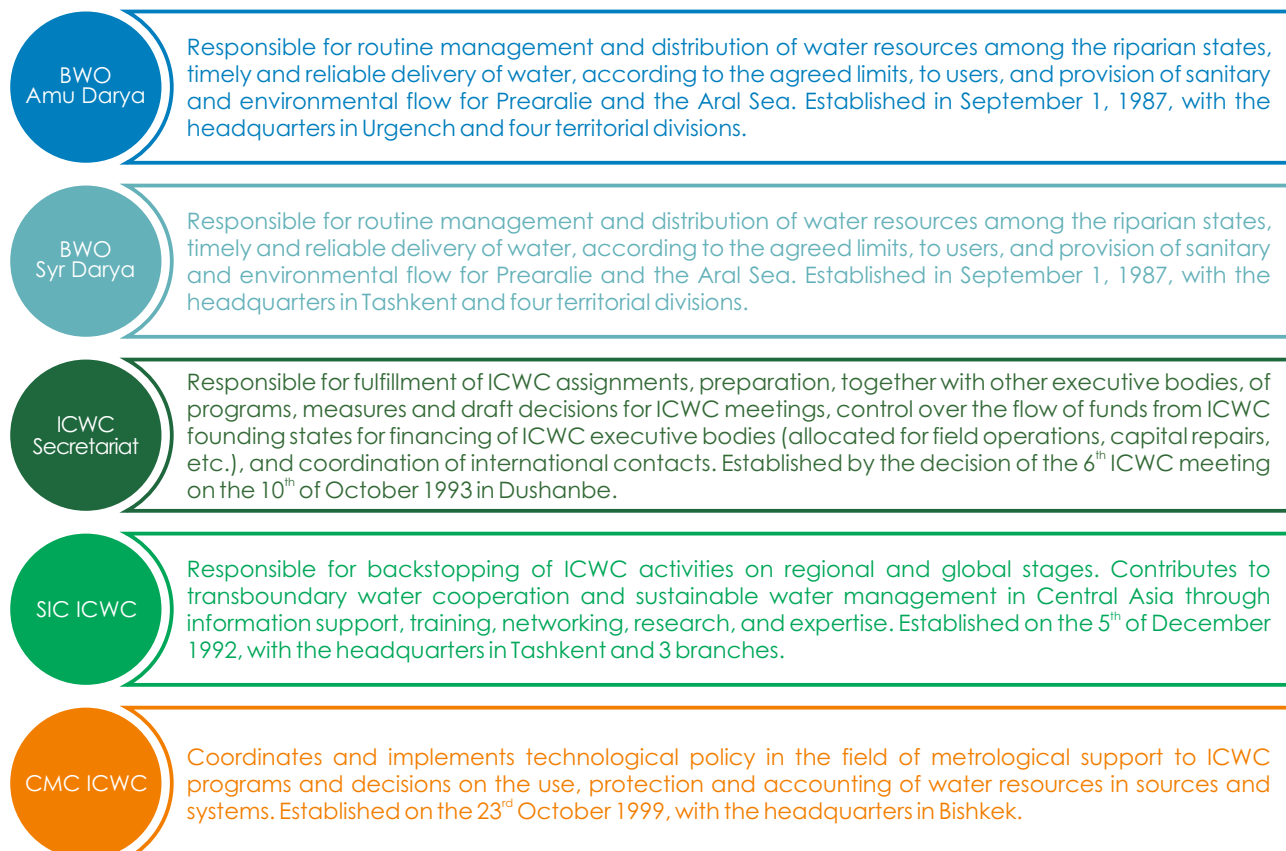
²⁰ since the 68th meeting, representatives of the Kyrgyz Republic have not taken part in ICWC activity

ICWC executive bodies shall make stronger efforts for implementation of the initiatives raised by the IFAS founder-states and inform regularly the ICWC members" (83rd meeting).

At the 82nd meeting: (1) Ms. Dinara Ziganshina was appointed the Director of SIC ICWC; (2) E. Nisanbayev, R. Bobokalonov, G. Bayjanov, and R. Giniyatullin were awarded the title "Honorary ICWC member".

3.3.2. Activities of ICWC Executive Bodies in 2022

Executive bodies of ICWC



BWO Amu Darya

Activity in 2022

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/quotas (see [Water 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 (see [ICWC meetings](#)). Also, 13 meetings were held among the heads of water management organizations responsible for the river's lower reaches 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, IWMI.

Source: BWO Amu Darya

BWO Syr Darya

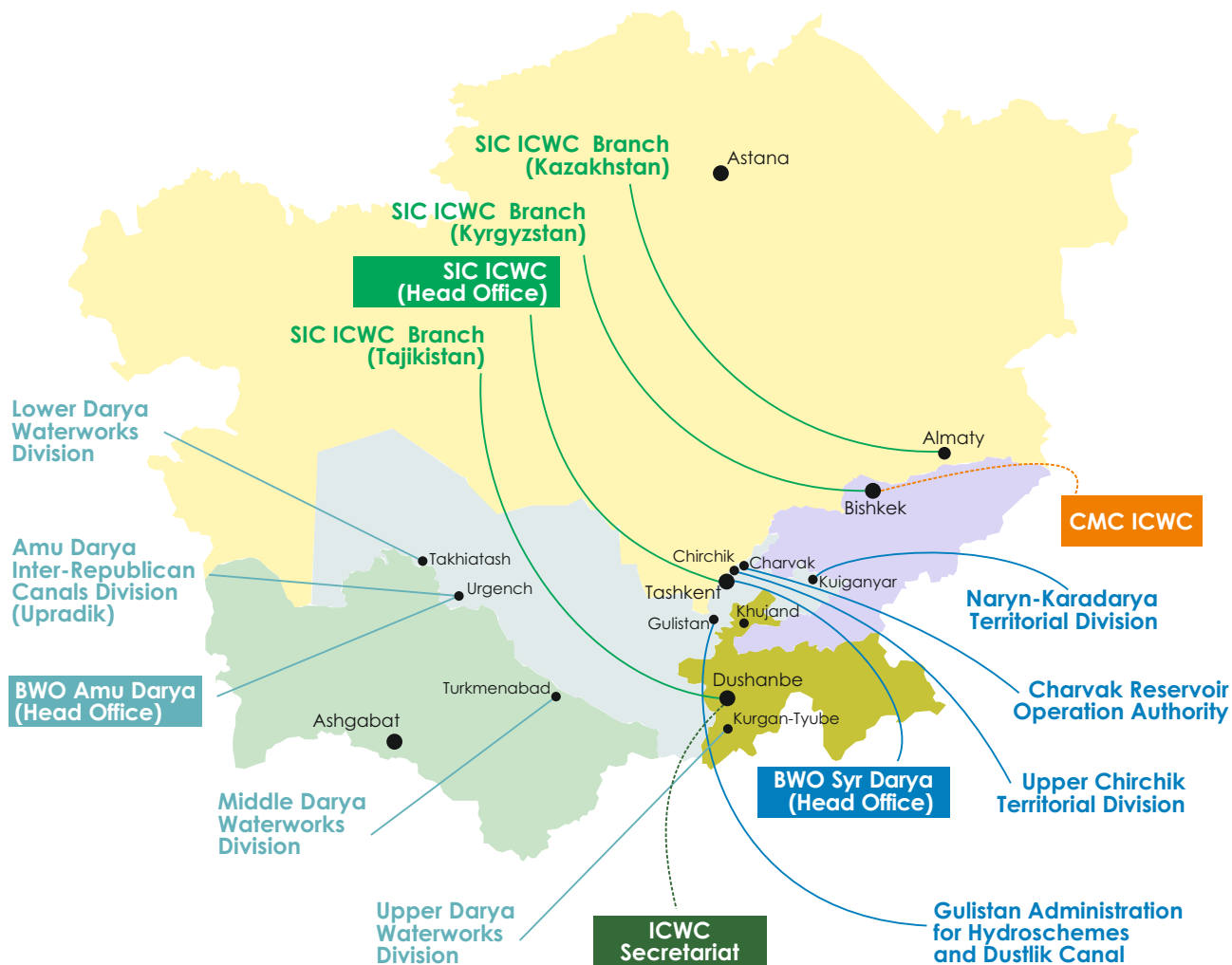
Activity in 2022

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 user-states.

Collective governance. In 2022, representative of the Republic of Kazakhstan, deputy head of BWO Syr Darya, Mr. M.E. Imangaliyev, based on his mandate, was engaged in BWO's activities and took part in organization of working meetings between Kazakhstani and Uzbekistani representatives of water agencies on the matters related to transboundary water management.

ICWC meetings. BWO Syr Darya took part in preparation of 82nd and 83rd ICWC meetings. The reports on

Location of Executive Bodies



forecast and actual operation regimes of the Naryn-Syrdarya cascade of reservoirs and the limits/quotas of country water withdrawals for: (1) the growing season 2022, with account of the expected average water availability (forecast and actual), and (2) the non-growing seasons 2021-2022 (actual) and 2022-2023 (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. See more details in "ICWC meetings".

Repair and rehabilitation of hydraulic structures were performed in line with the approved plan by the territorial branches of BWO, including the mechanical cleaning of canals.

Reconstruction and modernization. As part of an investment program, the construction work under Reconstruction and modernization of the Dustlik Canal headwork in Tashkent province, Stage 1 was completed and Stage 2 of this project was started.

ASBP-4. The financing is sought for the following project proposals included in the ASBP-4: 1.3. "Pro-

vision 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

ICWC Secretariat

Activity in 2022

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 hosted the roundtable "Achievement of Sustainable Development Goals and the tasks related to water and sanitation with the involvement of women in Tajikistan" (July, Dushanbe) and took part in: (1) the 9th World Water Forum as a member of the Organizing Committee for a session on the sidelines of the Forum; (2) a national workshop on coordination of

the water reform (June, MEWR RT, UNDP); (3) marathon "Run Blue"²¹ (May 15-June 10, Tajikistan); (4) training in nexus approaches for CA universities (November 7-11, Almaty, Kazakhstan); (5) COP 27.

On the occasion of the 30th anniversary of ICWC, representatives of the ICWC Secretariat were awarded badges "For contribution to saving the Aral" (April 26, Turkistan, Kazakhstan).

Source: ICWC Secretariat

Scientific-Information Center of ICWC

Activity in 2022

ICWC meetings. SIC together with other ICWC bodies took part in preparation of: (1) two meetings (82nd and 83rd, see [ICWC meetings](#)); (2) International Central Asian Science-to-Practice Conference "30-years of Water Cooperation among the Central Asian States: Facing the Future". 5 banners, 4 collections of papers and 2 leaflets were prepared for this event (April 26-27, Turkistan). SIC took active part in fulfillment of ICWC decisions and instructions.

Implementation of initiatives of IFAS Heads. SIC was involved in implementation of activities following the joint communique adopted at the Summit of the Heads of IFAS founder states and the initiatives of Presidents of CA states and reported on SIC's contribution at ICWC meetings in part of automation of gauging stations, search for potential format of water-energy regulation, development of methodologies and analytical materials on IWRM, water conservation, sound water use and water accounting, organization of field expeditions and RS-based monitoring of the Aral Sea exposed bed, water diplomacy and scientific cooperation, on participation in activities of working groups for implementation of ASBP-4 and improvement of IFAS (the information is available in ICWC bulletins, issues 83-94).

Regional Information System on Land and Water in the Aral Sea Basin (CAWater-IS). The IS was populated by the information in part of: (1) Economic block on Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan for 2021; (2) Amu Darya, Syr Darya, Kashkadarya, Surkhandarya, Chirchik, and Karadarya rivers for 2020-2021; (3) inflow to the Aral Sea and the Amu Darya delta for the growing season 2022 and non-growing season 2021-2022; (4) analysis of situation in water in the Amu Darya and Syr Darya river basins for the growing season 2022 and non-growing season 2021-2022; (5) results of RS-based monitoring of lakes and wetlands in the Aral Sea and the Aral Sea region. You can see details in [Section 2](#). A prototype of the regional information system (GIS-interface) was finalized for the small basin of the Amu Darya River.

Analytics. Every ten days, analysis reports on basin situation were published on the SIC ICWC web-site in sections "Water-related situation in the Amu Darya River Basin" and "Water-related situation in the Syr Darya River Basin". Technical, information and expert assistance was rendered to national and regional organizations through timely provision on their request of relevant materials on key water issues: draft Water Code of Uzbekistan, regional sustainable water supply; situation in water in the Zarafshan River basin; drip irrigation development; water charges; public-private partnership; water-energy issues; climate change; and, development of cooperation between the CA countries and Afghanistan. Potential impact of construction and operation of the Qosh Tepa irrigation canal in Afghanistan on water supply in the riparian countries of the Amu Darya is assessed now.

Information and publications. 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.

Information on the CAWater-Info web-portal exceeded **75 Gb**, over **2 million** visits were registered in 2022, and **1104** new entries were added to the knowledge base. SIC issued **25 publications**. The web-page dedicated to scientific heritage of Prof. V. Dukhovniy was opened on http://sic.icwc-aral.uz/scientific_heritage_of_prof_dukhovny.htm.



Research and development. SIC staff carried out research and developed tools in support of decision making as part of its research activity and within the framework of projects. In 2022, 7 new project contracts were signed and 8 projects were implemented (under contracts with OECD, UNRCCA, ADB, UNESCO, Ministry of Innovations of Uzbekistan, Martin Luther University Halle-Wittenberg). Also, research efforts and assessments were conducted with the involvement of CA experts under umbrella of the [Expert Platform on Water Security, Sustainable Deve-](#)

²¹ on the occasion of the International Decade for Action "Water for Sustainable Development", 2018-2028 and the 2023 UN Water Conference, Guli Mina, ecoactivist and President of the "Thirst" Fund initiated a marathon in several countries all over the world

lopment and Future Studies. Based on the research results, 17 articles, including 3 ones in international journals and 14 ones in Uzbekistan, were published by SIC staff. The research was carried out in the following key areas:

Transboundary cooperation and regional organizations. The review was made of institutional and financial forms of cooperation on water and hydro-power in CA (with the OECD support and the involvement of experts from CA countries), followed by issue of a discussion paper. SIC led drafting the position paper “9th World Water forum: Central Asia for peace and development. Priorities, actions and challenges for the future”, which was approved by the IFAS Board.

A paper on strategic partnership between Tajikistan and Uzbekistan on the Zarafshan River Basin was prepared. SIC made assessments of: (1) trends in water law reforms in the CA countries (published in *Chinese Journal of Environmental Law*); (2) practices of water allocation in the Amu Darya basin since 1991 till 2015 (published in the book “Water allocation and agriculture: transition from open to regulated access”).

Water planning and regulation through improved data and tools. SIC assists the CA countries and international partners in regular monitoring of transboundary rivers and provision of early warning. As part of UNRCCA project “Drafting of Aral Sea Basin Transboundary Water Early Warning Bulletins”, 4 e-bulletins containing the information on the current situation in the Syr Darya and Amu Darya basins and the forecast for next month were issued (March-April, April-May, May-June, June-July).

“E-rules of Intra-Annual Flow Regulation in the Amu Darya River Basin” were developed jointly with the Institute of Geographic Sciences and Natural Resources Research of the Chinese Academy of Sciences (IGSNRR, CAS) as part of the project under contract with the Ministry of Innovations of Uzbekistan. This E-rules package includes the database, models and routines, as well as recommendations for composing river water balances and drafting rules for flow regulation by reservoirs. The research methods and results were presented in the SIC ICWC Collection of Scientific Papers (issue 18) and in proceedings of the roundtable held in the memory of Prof. V. Dukhovniy on August 16.

The challenges of IWRM planning and the scientific, practical and innovation issues of water management were summarized also in the SIC ICWC Collection of Scientific Papers, issue 18 and the above proceedings.

Water, energy, land and ecosystem nexus. SIC made preparations for the IKI-funded project on the energy-water-land nexus transformation in Central Asia with the OECD support. In particular, jointly with experts from the CA countries, the Center mapped:

(1) key stakeholders in Central Asia, relevant to the scope of the energy-water-land nexus; (2) ongoing initiatives in the water-energy-food/land nexus in Central Asia; and organized meetings with potential partners for development of project work packages.

Water security. SIC with the UNESCO support has developed a new methodology for assessment of water security focusing on administrative territories and national goals set in national programs and strategies. The methodology was tested in Khorezm, Navoiy and Samarkand provinces of Uzbekistan and recommendations were drafted for the improvement of water security (see *Uzbekistan Water Security Outlook 2020*).

Adaptation of water and land use to the changing context. The Center started research on adaptation of a modern system for water and land resources monitoring and water balance (water requirement) modeling in the conditions of the Aral Sea region with a view of combating salinization and increasing land productivity as part of the Uzbek-Japan Joint International Research Development Program SATREPS-2020. In particular, pilot field sites were selected in Karauzyak, Muynak and Ellikala regions and work was started on testing the REQWAT model for calculation of crop water requirements and monitoring of cotton and sesame development and growth.

Under the contract with the Martin Luther University Halle-Wittenberg, the data on agricultural droughts in CA have been analyzed. In particular, for the period of 2000-2022 the comparison was made between: (1) water availability indicators (deviation of water delivery to a district from the average delivery to districts in Uzbekistan) and drought indicators; (2) estimated and actual crop yields.

Improvement of water accounting. The Center summarized the results of analysis and assessments of water losses in irrigation networks and state of water accounting along the inter-farm canals of the TCT Agrocluster and developed a methodology for assessment of water losses in reservoirs of Tuyamuyun waterworks facility (SIC ICWC Collection of Scientific Papers, issue 18).

Environmental issues. SIC continued studying conditions of the exposed bed of the Aral Sea and in the Aral Sea region and, in particular, it published: results of the study of environmental conditions of lakes and wetlands in the South Aral Region (SIC ICWC Collection of Scientific Papers, issue 18) and of salt formations in the soil of the exposed seabed (Moscow University journal, issue 3, 2022). The results of RS and GIS-based monitoring of changes in green areas in the Tashkent city were presented in the SIC ICWC Collection of Scientific Papers, issue 18 and recommendations for the assessment of sanitary flow along the Syr Darya River were developed.

Water financing. Assessment of the water investment environment in Uzbekistan was made under a

sub-contract with [DHI Infrastructure](#) for the regional ADB project "COVID-19 Infection Prevention and Control through an Integrated Water, Sanitation, Hygiene, and Health Approach". The results of the study of international experience in public-private partnerships in the water sector and the comparative analysis of pricing methods for irrigation services of water user associations were presented in SIC's publications as well.

Water, heritage and culture. SIC has started studying new areas of knowledge. Following participation in a series of seminars organized by the ICOMOS International Scientific Committee on Water and Heritage, SIC has begun preparing its contribution on "Water and Heritage in Central Asia on the example of development of the Hunger Steppe." Jointly with researchers from the IHE-UNESCO Institute for Water Education and the University of Amsterdam, SIC is also studying cultural and emotional aspects that influence transboundary water cooperation.

Capacity building and training. The web-site developed by SIC on capacity building and training was further enriched and populated. SIC's experts offered lectures and practical classes for master's students at TIAME, GKU, held training and roundtables (see [Regional Training Center at SIC ICWC](#)). Preparation arrangements were started for: the thematic session on water diplomacy within the framework of the International Conference "Silk Road of Knowledge: Science meets Green Policy", jointly with IHE and the Konrad Adenauer Foundation ([February 23-24, 2023](#)), session and policy brief for the UN Water Conference (March 22-24, 2023); the training workshop "IWRM at transboundary level in the context of climate change" for the staff of BWO Syr Darya branches as part of celebrations of the 30th anniversary of IFAS (February 23-24, 2023); and, training courses on water policy and strategic planning in the context of climate change organized by IFAS and IHE (February-June 2023).

With the financial support of SIC ICWC, a drawing and video contest was organized on the theme "Water is a priceless gift" among 1-4 grade pupils at Euroasia school (April 18).

Collaboration is maintained with scientific journals: Dinara Ziganshina is a publishing editor on water governance and law of the Central Asian Journal of Water Research (CAJWR); Sherzod Muminov is a member of the editorial team of the e-journal "Actuarial Finance and Accounting" issued by the Tashkent State Economic University.

SIC staff improved its qualifications through training in 24 online workshops.

Events. SIC leadership and staff represented their organization at more than 30 national, regional and international conferences, workshops, and roundtables, including the 9th WWF in Senegal (see list of events in the [2022 Calendar of Events](#)).

Regional and international cooperation. SIC ICWC has become a member of the WWC Board of Governors (www.worldwatercouncil.org/en/board-man-date-2023-2025) and the Expert consultative council of the Project "Water Efficient Allocation in a Central Asian Transboundary River Basin" ([WE-ACT](#))²², took part in the working group on institutional and legal improvement of IFAS and in the organizing committee of the CA session at 9th WWF. SIC ICWC continues cooperating with UNECE²³, ICID²⁴, OECD, UNESCO, ADB, EECCA NWO, WWC, SDC, GIZ, IICAS and many others.

SIC continues issuing [Water Yearbook: Central Asia and around the Globe](#) as its contribution to coordination of water actions among countries and partners.

Media. Interviews were given to the Kazakh TV-channel "Khabar 24" (May 9, www.youtube.com/watch?v=JIDbd3Stv8Q), online journal "One world"²⁵ – [It's less about the available volume of water and more about the timing of how it's shared](#), the MA'NO Expert Center on the development of international humanitarian cooperation in CIS countries (August 30), and UWEC on ["International law and exceptional circumstances"](#) (October 4). D. Ziganshina recorded the podcast on "Women in hydrodiplomacy" upon request of OSCE.

Source: SIC ICWC

3.4. ICSD of Central Asia



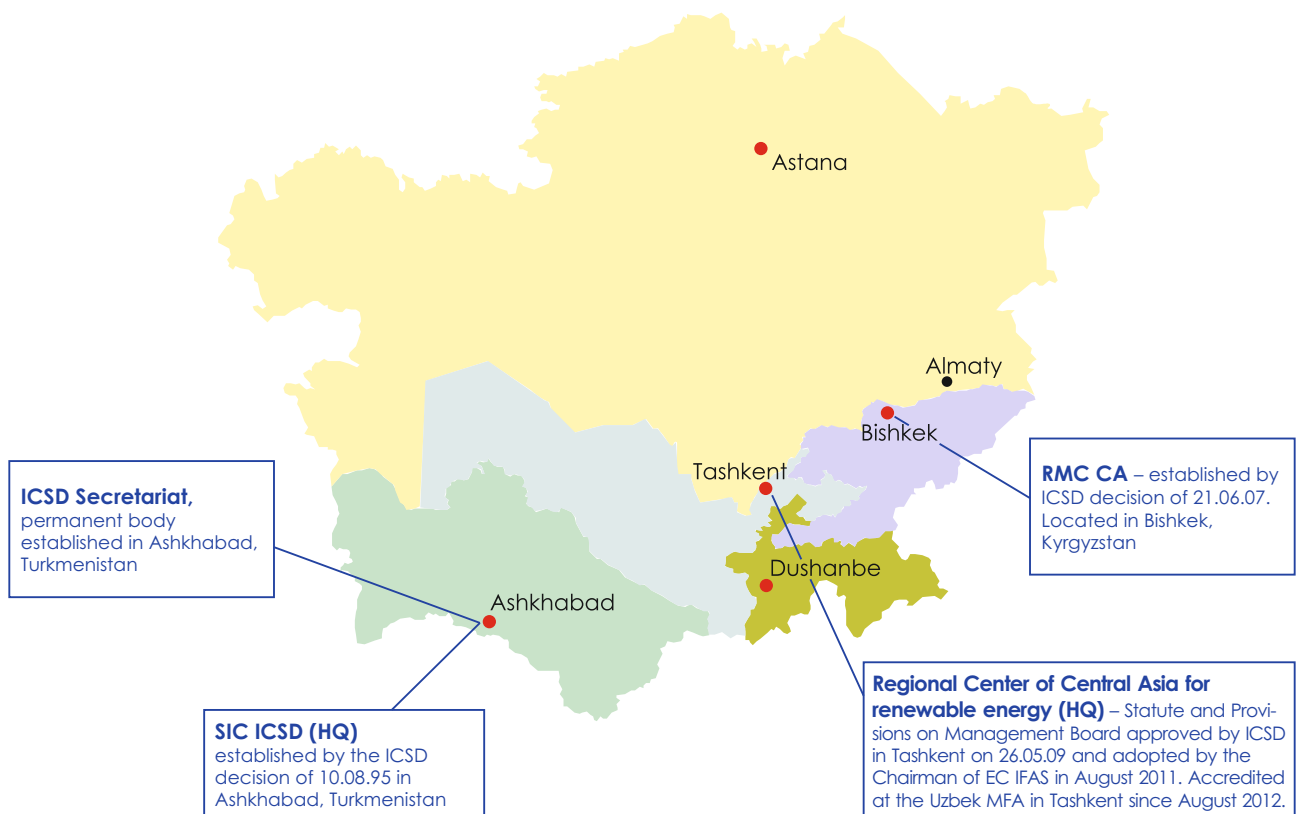
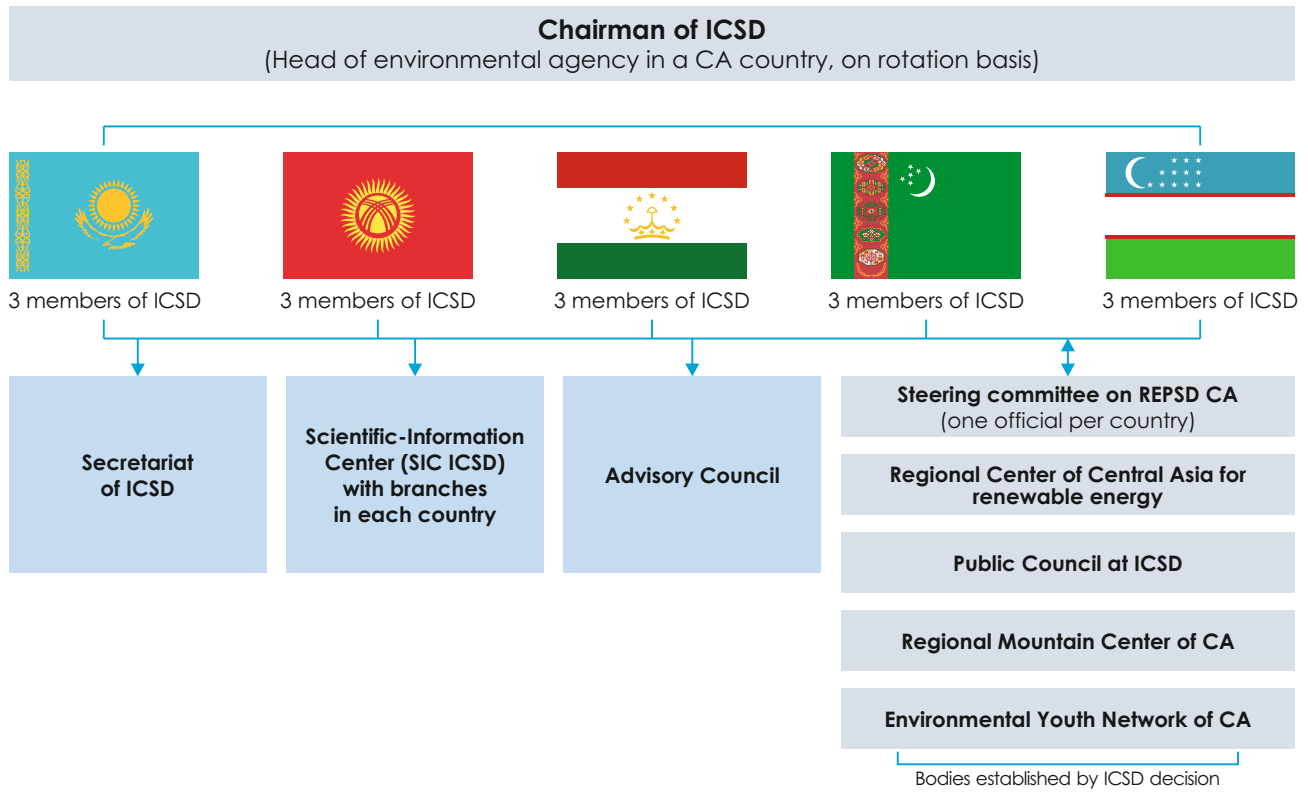
The Interstate Commission on Sustainable Development (ICSD) was established by the decision of the Interstate Council for the Aral Sea Basin in 1993. It is entrusted with the mission of coordination and management of regional cooperation in the field of environmental protection and sustainable development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

²² implemented by 13 institutions under general coordination by the Technical University of Munich within the framework of the EU Horizon Program

²³ D. Ziganshina is a member of the Implementation Committee of the Water Convention

²⁴ SIC ICWC coordinates activity of the ICID working group for the countries under the socio-economic transformation – WG-IDSS

²⁵ the SDC Magazine for development and cooperation



The Republic of Uzbekistan was chairing ICSD over 2020-2021 (30th ICSD meeting, October 24, 2019, Nukus). At the regular ICSD meeting on March 18,

2022, the chairmanship²⁶ was passed from the Republic of Uzbekistan to the Republic of Kazakhstan for 2022-2024.

²⁶ the ministers of environmental agencies chair ICSD on rotational basis every 2 years

Activity in 2022

The primary task is to strengthen legal, institutional and technical framework of ICSD and its bodies. This task is fulfilled by the EC IFAS working group, where the Secretariat of ICSD is involved also.

Regional Environmental Program for Sustainable Development (REP4SD) in Central Asia. REP4SD²⁷ was approved at the meeting of the IFAS Board on February 22, 2022 in Dushanbe. The Program is based on the ongoing in CA processes aimed at achieving SDGs, implementing UN environmental conventions, developing green economy and adapting to climate change. The framework character of the Program is to promote regional environmental cooperation in CA until 2030.

REP4SD includes over 40 agreed **regional cooperation priorities** grouped by environmental SDGs. The **Roadmap** of REP4SD developed jointly with UNEP ranks the priorities of implementation. **High priority actions include:** (1) development²⁸ of indicators to fully measure implementation of the Roadmap and the Regional strategy on adaptation to climate chan-

ge; (2) preparation and implementation of regional programs and projects funded by GEF, GCF and other donors²⁹; (3) issues under the education-related SDG 4. There is a need for standardization of education disciplines in the area of ecology and sustainable development, for preparation of highly skilled professionals, and building human and institutional capacities of relevant ministries and agencies; (4) implementation of SDG 15 and UN conventions on desertification and biodiversity; (5) monitoring of glaciers and climate risks, as well as development of green economy principles.

Events. A regular ICSD meeting was held on March 18 online. Kazakhstan presented the work plan for the period of its chairmanship and the Roadmap of REP4SD was approved, based on the developed indicators and monitoring mechanism. The participants also approved the revisited Statute of the SIC ICSD and discussed the opening of a regional center for waste management and other matters related to environmental cooperation in the region.

Source: Secretariat of ICSD

²⁷ this was preceded by huge efforts, starting from the ministerial conference "Environment for Europe" in 2016, where ICSD took voluntary obligations to update the Regional program as part of the Batumi green economy initiative. See more in 2021 Water Yearbook, Section 3.4, http://www.cawater-info.net/yearbook/index_e.htm

²⁸ implemented jointly with GIZ as part of the Integrative Land Use Management Approaches for Central Asia Program (ILUMA) and the Green Central Asia Program

²⁹ climate financing for the region can be attracted also through international organizations. Memorandums of cooperation for implementation of REP4SD were concluded with UNEP, UNECE, CAREC and GIZ

