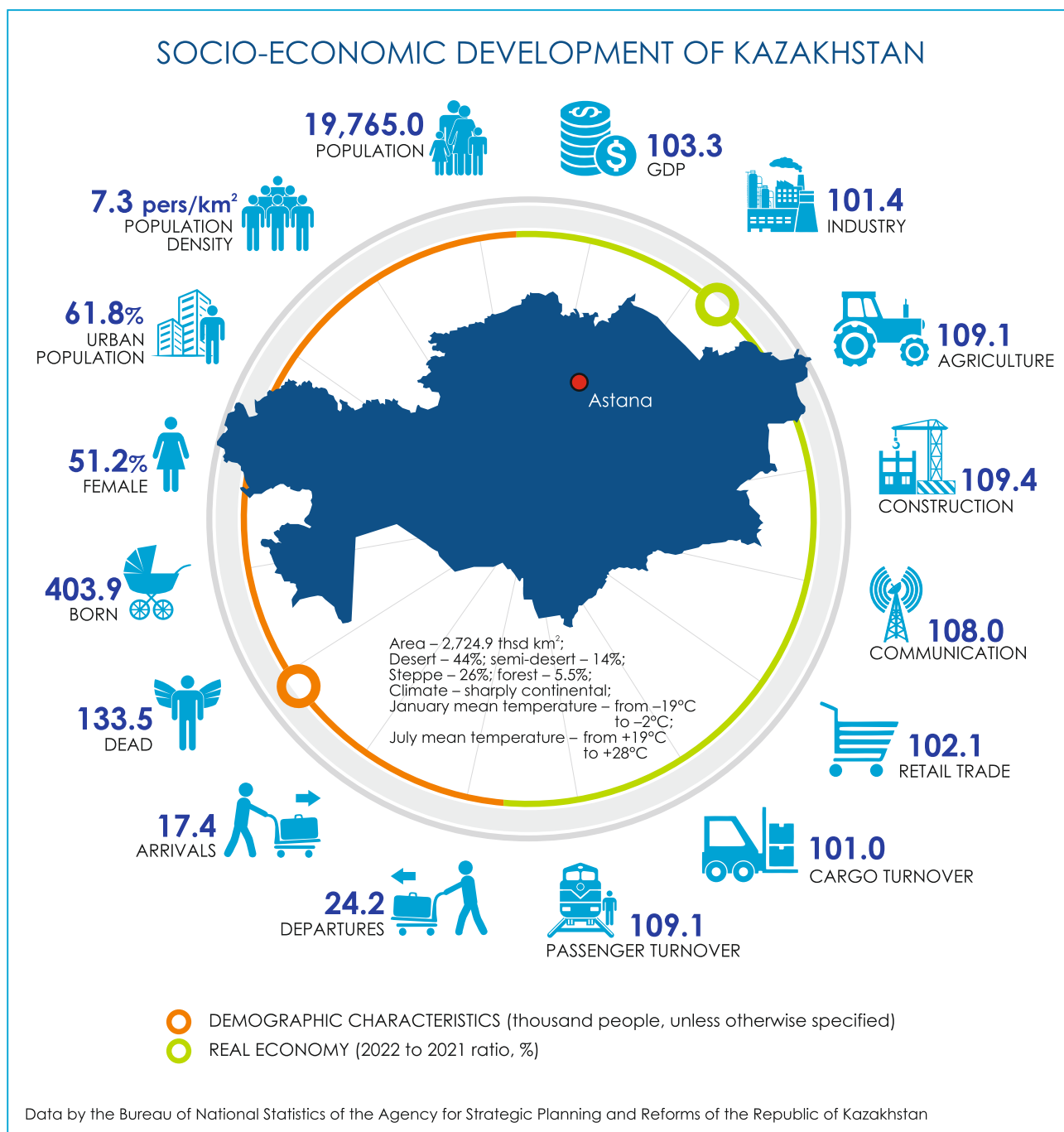




# SECTION 5

Key Water Developments  
in the Countries  
of Central Asia

## 5.1. Kazakhstan



### Water Sector

**Water resources.** There are 85 thousand rivers, with the largest of them being the Irtysh, Ishim, Ural, Syr Darya, Ile, Chu, Tobol, and 48 thousand large and small lakes in Kazakhstan.

The largest lakes are the Caspian Sea and the Aral Sea, followed by Balkhash, Zaisan and Alakol lakes. Glaciers are one of major sources of river water.

The average annual river runoff is 102.3 km<sup>3</sup>/year, of which 54.5 km<sup>3</sup>/year is local runoff and 47.8 km<sup>3</sup>/year flows from the Central Asian states, Russia and China.

In the future, taking into account the forecast growth of population, livestock and industrial production, water consumption will increase to 29.7 km<sup>3</sup>.

According to forecasts, by 2030, internal river resources will decrease from 102.3 km<sup>3</sup> to 99.4 km<sup>3</sup>, including due to the reduced inflow from neighboring countries, from 47.8 km<sup>3</sup> to 46.5 km<sup>3</sup>.

In this context, the country could be short of 23.2 km<sup>3</sup>, which is comparable to the total annual water withdrawal by the population and economic sectors.

**Latest developments in legislation.** To improve the water management system, the **Water Council of**

**Kazakhstan**<sup>35,36</sup> was established. The **Ministry of Ecology, Geology and Natural Resources** was set as the Council's working body.

Public hearings were organized on consultation documents<sup>37</sup> of the regulatory policy of the **Water Code** (new edition)<sup>38</sup> and the draft Law "On amendments and additions to some legislative acts on water protection and use"<sup>39</sup>. In the new edition it is proposed to clearly define the competencies of state bodies on water accounting and monitoring; to establish a hydrological center for generalization of all data, assessment and forecasts; to provide economic incentives for water conservation, etc.

**Meetings of the Water Council of Kazakhstan.** During the meetings, the Council addressed: (1) the issues of electricity exchange with the Kyrgyz Republic and water supply in the southern provinces of Kazakhstan (March 11); (2) the integrated water sector development plan (September 10); (3) the Draft Concept for Development of the Water Management System for 2023-2029<sup>40</sup> and progress in preparation for the republican meeting on water sector reformation. The document defines the 2 main focus areas: (1) improved water supply and demand management for sustainable development (October 15); (2) draft integrated water development plan for 2023-2025, which envisages a new Water Code, the strengthened position of the country in the negotiation process on transboundary rivers, a research center for water, economic mechanisms for regulation of water use in place, development of water infrastructure, etc. (December 13).

**Results of the growing season.** According to the MEGNR, the growing season was smooth: about 11.6 km<sup>3</sup> of the total water withdrawal was used for regular irrigation, including 97% of water allocated to 5 southern provinces – Almaty, Zhambyl, Turkestan, Kyzylorda and Zhetysu, having the total irrigated area of 1.61 million ha (73% of the total country area).

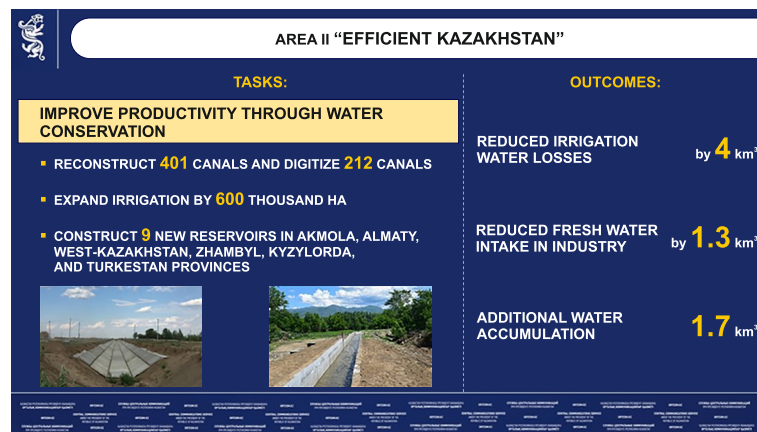
To ensure smooth growing season, the MEGNR takes a set of **external and internal measures**. Within the framework of trilateral cooperation (Kazakhstan, Tajikistan, and Uzbekistan): (1) 330 million m<sup>3</sup> of water was delivered along the Dostyk Canal in summer in exchange of commodity and electricity supplies to Kyrgyzstan. In April, water supply schedules were approved and signed for the Chu (500 million m<sup>3</sup>) and

Talas (220 million m<sup>3</sup>) basins. The inflow to the Shar-dara reservoir was expected to be 3.9 billion m<sup>3</sup> under the agreed forecast operation mode of the Naryn-Syr Darya reservoir cascade. The actual inflow was 4 billion m<sup>3</sup>; (2) the water discharged from the Toktogul reservoir was passed through the Bakhri Tojik reservoir under an agreement reached with Tajikistan and the terms of drawdown of the reservoir were also agreed.

The internal measures included: repair and rehabilitation of 5,322 outlet structures in transboundary river basins; reconstruction and cleaning of 1,512 km of main and inter-farm canals that reduced water losses by more than 450 million m<sup>3</sup>; procurement of 67 pump stations for drainage water reuse; and, automation of gauging stations on 89 canals. In the southern provinces, 1,030 km of canals were cleaned, water-saving technologies were applied on 107,000 ha, the acreage of waterintensive crops was reduced, and water rotation and sequencing were organized.

**Projects.** Within the framework of the **national "Green Kazakhstan" project**<sup>41</sup> (second focus area – "Efficient Kazakhstan"<sup>42</sup>), it is planned to reduce irrigation water losses by 4 km<sup>3</sup> and decrease freshwater industrial intake by 1.3 km<sup>3</sup> by reconstructing 401 canals and digitizing 212 canals until 2025.

Measures are envisaged to increase irrigated land area by 600 thousand ha. For additional irrigation sources, construction of 9 new reservoirs capable to store 1.7 km<sup>3</sup> is planned.



Source: <https://primeminister.kz/ru/news/reviews/za-schet-realizacii-nacproekta-zhasyl-kazakstan-budet-sozdano-poryadka-60-tys-rabochih-mest-s-brekeshev-2691926>

<sup>35</sup> the composition of the Water Council was amended in line with the order of the Prime Minister of the Republic of Kazakhstan, No.158-p of 04.10.22 (put into effect since October 4, 2022)

<sup>36</sup> Order of the Prime Minister of the Republic of Kazakhstan, No.141-p of 18.12.2015 "On Establishment of the Interagency Council on Water Resource Management in Kazakhstan" is no longer in force

<sup>37</sup> guidelines for solution of problems in the water sector. The development of the new Water Code was ordered by the Head of State and its updating was included in the National Development Plan

<sup>38</sup> draft Water Code of RK is put up for discussion, January 2023 <https://www.gov.kz/memleket/enities/ecogeo/documents/details/401554?lang=ru>

<sup>39</sup> draft law (January 2023) is available on [https://online.zakon.kz/Document/?doc\\_id=39129497&pos=3;-106#pos=3;-106](https://online.zakon.kz/Document/?doc_id=39129497&pos=3;-106#pos=3;-106)

<sup>40</sup> developed by MEGNR. The approved draft "Concept for Development of Water Resource Management System for 2023-2029" includes four main objectives: increasing water productivity, improving water quality, resilience and water management

<sup>41</sup> approved by the Resolution of President of RK, No. 731 of 12.10.2021 and includes 11 tasks, for which 19 indicators and 48 measures are set

<sup>42</sup> the main goal is the sustainable use of natural resources, primarily water, and reduction of energy intensity of the economy

RSE "Kazvodkhoz" of the Committee for Water Resources has got financing from the (1) IDB for the "Rehabilitation of irrigation and drainage" project (\$143 million) in Almaty (Koksu, Aksu, Eskelda and Alakol districts on a total area of 35.4 thousand ha) and South Kazakhstan (Makhtaaral and Shardara districts on a total area of 101 thousand ha) provinces; (2) EDB to reconstruct 310 water facilities in Zhambyl province (Zhambyl, Bayzak, Zhualyn, Merken and Korday districts). The total area is 53.9 thousand ha, while the cost of contract work is more than 25 billion KZT. 65% of work has been completed by far. The project is to be finalized in 2023.

Ongoing projects: (1) "The governance of groundwater resources in transboundary aquifers (GGRETA)"<sup>43</sup>, which aims to strengthen the joint management of the Tashkent area Transboundary Aquifer (TBA) through scientific cooperation and development of a joint mathematical model for TBA as a basis for cooperation between the countries. The forecast analysis of the operation of the Tashkent area TBA revealed a significant decrease in the level of fossil groundwater and the depletion of surface reservoirs in the areas of groundwater intake. The high rates of water consumption endanger the water quality of the Tashkent area TBA<sup>44</sup>, as well as the availability of a unique source of artesian water and its preservation for future generations. Experts warn that the rate of depletion requires urgent joint action and implementation of the recommendations made in the analysis. Representatives of the MEGNR and the Uzbek State Committee for Geology and Mineral Resources at their meeting in Almaty considered the Roadmap on protection and sustainable use of mineral waters in the Tashkent area TBA and the transfer of the mathematical model to the relevant state bodies of Kazakhstan and Uzbekistan for its practical use (November 2); (2) USAID regional water and vulnerable environment activity (\$21.5 million, October 2020-September 2025), aimed at strengthening regional water cooperation between the CA countries; (3) "Second irrigation and drainage improvement project in the Republic of Kazakhstan" (WB, \$343.01 million, June 2013-October 2023) to support farmers in the project areas.

**Events.** The MEGNR supported: (1) the roundtable on "Problems and prospects of efficient water use in Kazakhstan and CA: development of the international legal framework for cooperation" (April 22); (2) 2<sup>nd</sup> regional high-level policy dialogue on the "Energy-Water-Land Use Nexus in Central Asia"<sup>45</sup> (June 16); (3) regional seminar "International experience of transboundary water allocation and prospects for cooperation development on water sharing in CA"<sup>46</sup> (November 2); (4) regional workshop on safety of hydraulic facilities in CA<sup>47</sup> (November 30).

The Kazakh delegation took part in the: (1) 4<sup>th</sup> joint meeting of the Working Groups on IWRM and on Monitoring and Assessment marking the 30<sup>th</sup> anniversary of the Water Convention (June 28-29, Tallinn); (2) 1<sup>st</sup> meeting of the WMO RA II Coordination Panel on Hydrology and Water Resources (October 31-November 1, Vientiane, Lao PDR); (3) WMO Regional Association IV conference (November 2-4, Geneva).

**Regional and international cooperation.** The Vice-Ministers of Kazakhstan and Tajikistan discussed the water-related situation in the Syr Darya River basin and agreed on the operation mode of the Bakhri Tojik reservoir in the non-growing (2021-2022) and growing seasons (2022) (February 22).

The Minister of Energy, Geology and Natural Resources had meetings with: (1) the Minister of Water Management of Uzbekistan and discussed the joint efforts to improve water supply in the middle and lower reaches of the Syr Darya River, the signature of the Agreement between the governments on joint management and use of transboundary water bodies, the establishment of a bilateral commission for water cooperation at the level of prime ministers of the two countries; agreements were reached on joint measures to increase inflow to the Shardara reservoir and ensure stable water delivery along the interstate "Dostyk" Canal; consultations were held on the establishment of the Central Asian Water And Energy Consortium and the joint hydropower construction (February 9, Tashkent); (2) the Minister of Tourism of Israel and addressed the aspects of integration of Israeli technologies in water management, the environmental regulation, and the development of joint projects (July 12); (3) the Ambassador of Iran and talked on the matters related to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea and water cooperation (July 15).

The following events were held: (1) 3<sup>rd</sup> session of the Kazakhstan-Russia Commission on Preservation of the Ecosystem of the Transboundary Zhayik River basin (April 21, Omsk); (2) 9<sup>th</sup> meeting of the Kazakhstan-China Commission for Environmental Cooperation (October 13, online); (3) 12<sup>th</sup> (30<sup>th</sup>) meeting of the Kazakhstan-Russia Commission on Joint Transboundary Water Use and Protection (November 17, Tyumen); (4) 10<sup>th</sup> meeting of the Working Group on Environmental Protection (WGEP) under the Secretariat of the Chu-Talas Water Commission (November 18, Bishkek).

<sup>43</sup> implemented by the UNESCO International Hydrological Program (IHP) in close cooperation with the UNESCO International Groundwater Resources Assessment Center (IGRAC), the International Union for Conservation of Nature (IUCN) and field project teams

<sup>44</sup> The small, southeastern part of the aquifer is located in the Tashkent province of Uzbekistan, and the larger, northwestern part is located in the Shymkent province of Kazakhstan. The study area is densely populated, especially in Uzbekistan

<sup>45</sup> together with the OECD within the framework of the forthcoming regional project "Regional mechanisms for low-carbon, climate-resilient transformation of the energy-water-land nexus in Central Asia", which will be funded by the International Climate Initiative of the German Federal Ministry for Environment and implemented by a consortium of partners (OECD, UNECE, EBRD and SIC ICWC). The project is expected to start in the first half of 2023 and will last for 5 years

<sup>46</sup> with the financial support from the Ministry of Agriculture and Forestry of Finland

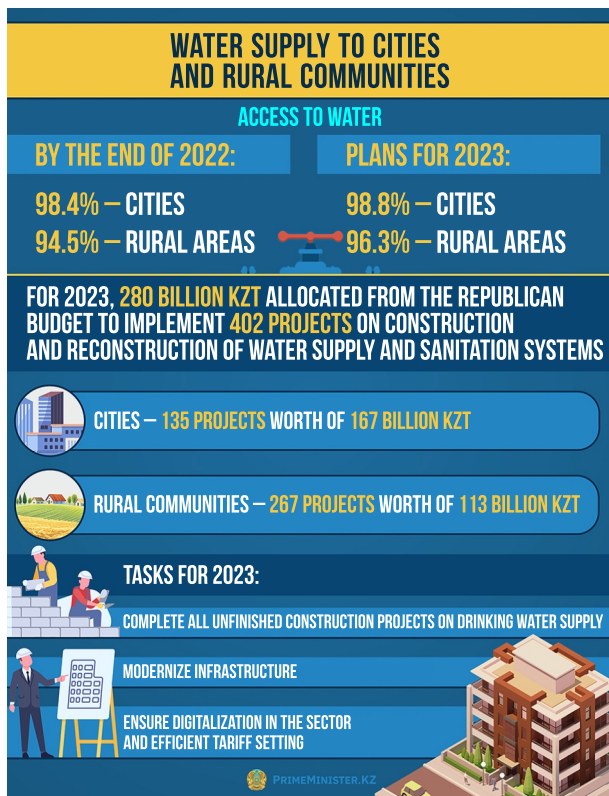
<sup>47</sup> organized by the IWAC in cooperation with the Slovak Water Management Enterprise (Vodohospodarska vystavba) and with the financial support from the WB (CAWEP) and official support from the Slovak Ministry of Environment

The agreement was signed between the Governments of the Republic of Kazakhstan and the People's Republic of China on joint management and operation of an intake structure on the transboundary Sumba River (September 14).

## Drinking Water Supply

By present, 96.8% of the country population (urban – 98.4%, rural – 94.5%) has access to drinking water thanks to implementation of national programs<sup>48</sup>. This means that 19.1 million people out of 19.7 million are fully provided with water. The lowest figures are in Kostanay, Akmola, and North-Kazakhstan provinces. The task is to reach 100% access to drinking water by the end of 2025. The MEGNR plans to implement 8 projects for construction and reconstruction of clustered water mains (CWM), which will provide safe drinking water to 41 rural communities of 22.3 thousand people and improve water supply to 52 rural communities of 33 thousand people.

Currently, there are 15.5 thousand-km long 76 CWMs, of which 39 CWMs (13.4 thousand km) are under the property of the Republic. 6.1 billion KZT are allocated for construction and reconstruction of CWMs in Almaty, Atyrau, Karaganda, Kyzylorda, Mangistau and North-Kazakhstan provinces. This work is to be completed in 2023-2024.



Source: <https://primeminister.kz/ru/media/infographic/vodo-snabzhenie-gorodskih-i-selskih-naselennyh-punktov-241249>

## Agriculture

In Kazakhstan, 1.4 million ha of irrigated land produce crops, the bulk (1.2 million ha) of which is located in the southern regions. The task is bring 610 thousand ha of land used as rainfed due to lack of water sources back into production and develop additional 1.5 million ha of new irrigated area.

In 2023, the total crop acreage will reach 23.4 million ha, which is 68.6 thousand ha more than in 2022. It is planned to increase grain and leguminous crop acreage by 117 thousand ha, fodder crops – by 36.5 thousand ha, and sugar beet – by 6.7 thousand ha.

**Latest developments in legislation.** Approved: (1) Food Security Plan of the Republic of Kazakhstan for 2022-2024 (PPRK No.178 of 31.03.2022), which makes provisions, among others, for the expansion of the acreage of highly profitable crops; the increase in coverage of irrigated land by water-saving technologies to 265 thousand ha in 2022, 300 thousand ha in 2023, and 373 thousand ha in 2024; construction of a modern irrigation system manufacturing plant in 2024; development of a national extension service, reaching up to 25% of agro-industry entities by 2025, etc.; (2) 2022 Action Program of the Government of Kazakhstan and the roadmap for the Program (PPRK No.241 of 25.04.2022).

Adopted: (1) Presidential Decree (PRK No.1 of 26.11.2022) "On the Concept<sup>49</sup> of Rural Development in the Republic of Kazakhstan for 2023-2027"; (2) Government Decree (PPRK No.726 of 22.09.2022) "On approval of the Master Plan for sugar industry development in the Republic of Kazakhstan for 2022-2026", including a number of measures for sound water use and application of water-saving technologies.

Amendments and additions were made to the Regulations on the Kazakhstan Ministry of Agriculture<sup>50</sup>.

Public discussions are initiated on draft Government Decrees: "On amendments and additions to the Resolution of the Government of Kazakhstan No.960 of December 30, 2021 "On approval of the Concept for Agro-Industrial Development in the Republic of Kazakhstan for 2021-2030"; "On approval of the Master Plan for Development of Crop Selection and Seed Production in the Republic of Kazakhstan for 2023-2027."

An updated draft of the Concept for Agro-Industrial Development up to 2030 is under development. It sets the following main objectives among others: increase labor productivity in the sector 2 times; increase agricultural exports 3 times; and, achieve food self-sufficiency at the level of at least 90%. It is also planned to increase investments on average 2.5 times in fixed assets of agriculture.

<sup>48</sup> National project "Strong regions – drivers of country's development", "Village is a country cradle" Project, etc.

<sup>49</sup> The Concept was approved by PPRK No.270 of 28.03.2023

<sup>50</sup> approved by PPRK No.310 of 06.04.2005

**New appointments.** E.Sh. Karashukayev was appointed the Minister of Agriculture (PPRK No.756 of 11.01.2022).

**The 2022 results.** The gross agricultural production increased by 9.1% to 9.3 trillion KZT. Grain harvests increased by 44% and reached 17 million tons. Over 13.2 million tons of agricultural products were exported.

The subsidies to agro-industry amounted to 450 billion KZT or 139 billion KZT more than in 2021; the financing of field work increased from 110 to 220 billion KZT. 270 investment projects worth of 241 billion KZT were put into operation. As a result, investments in fixed assets of agriculture increased by 6.7% to 853.5 billion KZT, and those in food production – by 15.7% to 140.6 billion KZT. In the Global Food Security Index, the country ranked 32<sup>nd</sup> out of 113 countries, improving its position by 9 points.

Since the beginning of the year, it became possible to track the ownership of agricultural land plots online (with indication of all grounds and normative legal acts) through the automated information system of the State Land Cadastre (AIS SLC, <http://aisgzk.kz/>). The geoservice ([jerkarta.gharysh.kz](http://jerkarta.gharysh.kz)) – an interactive map of land returned to the state – has been launched.

**Projects and capacity building.** As part of the “Enhancement of postgraduate studies on sustainable agriculture and future farming systems”/SAGRIS project (EU under ERASMUS+, 2020-2023), the second block seminars and study tours were held on different modules: (1) “SMART agriculture and digitalization” (February 28-March 4, June 17-27); (2) “Crop and livestock systems under climate change” (June 6-10, October 23-November 5); (3) “Advanced research methods” (December 5-8); (4) “Transdisciplinary research methods for sustainable agriculture” (May 11-20).

NASEC<sup>51</sup> launched the “Promotion of sustainable food systems and improved ecosystems services in Northern Kazakhstan landscape” project (UNDP, 2021-2023) to reduce degradation of productive agricultural land and associated high value ecosystems. GEF allocates grants for \$10 million 467 thousand.

For UNDP projects and FAO work on agriculture and food, see the [United Nations and its Specialized Agencies](#).

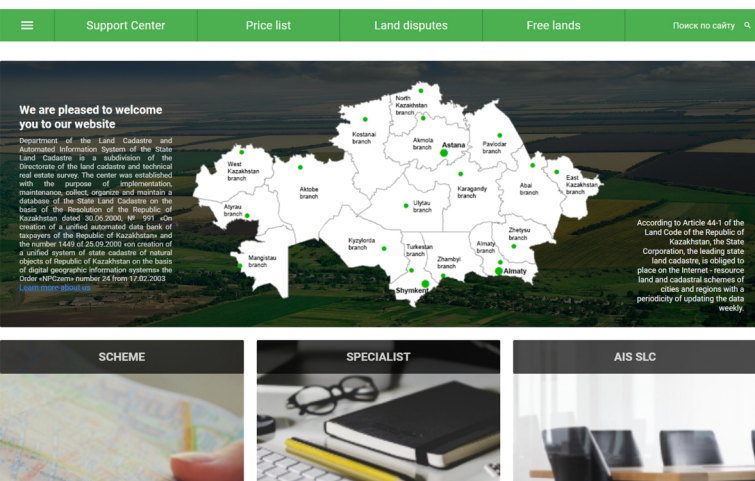
NASEC continued developing the National Bank of Plant Genetic Resources to collect all samples of crops and their wild relatives in a single repository and the national program “Plant breeding-2.0 KZ”. Agrarian universities developed under NASEC supervision a new system of training in digitalization of processes, automation of agricultural data collection and transmission, which is based on modern information technologies and aims to integrate with the global information and education process.

The round table “Key challenges of agro-industry development in Kazakhstan and their solution” was held at the Kazakh Research Institute of Agriculture and Plant Growing at NASEC (June 14).

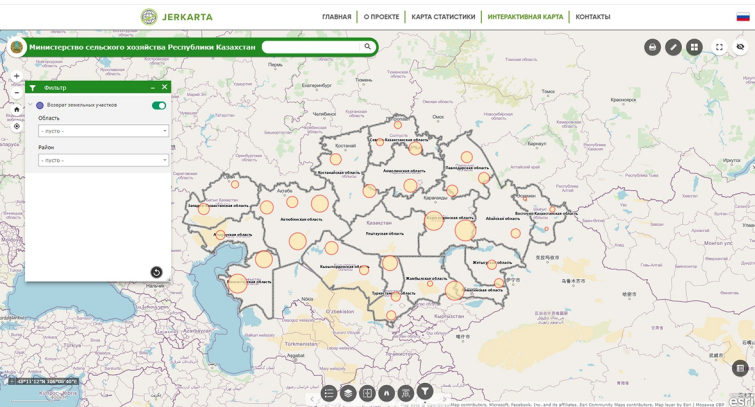
**Events.** The following events took place: (1) international agro-industrial conference “Asia Grains&Oils Conference 2022” (April 7, Nur-Sultan); (2) specialized exhibition “Kazakhstan Field Day”/Jańa Dala/Green Day-2022” (July 13-14, Akmola province); (3) international agricultural exhibition “KazAgro/KazFarm-2022” (October 12-14, Astana).

**International cooperation.** The Minister of Agriculture discussed the matters of bilateral agro-industrial cooperation with agricultural ministers of: (1) Russia (June 17, Saint Petersburg, Russia); (2) Kyrgyzstan (October 29, Almaty, Kazakhstan); (3) Uzbekistan, with the following signature of the Cooperation Program for trade and joint investment agro-industrial projects (December 22, Tashkent, Uzbekistan).

A number of documents were signed also between Kazakhstan and Iran, including the Memo on delivery of 1 million t of grain crops to IRI from the 2022-2023 harvest.



Source: <https://aisgzk.kz/aisgzk/en/>



Source: <https://jerkarta.gharysh.kz/ru/map>

<sup>51</sup> Non-profit JSC “National Agrarian Science and Educational Centre” at the Kazakh MA was founded in 2015 to promote innovative development of national agro-industry

## Energy

By January 1, 2022, about 190 stations on the national, industrial and regional scales have produced electricity production in Kazakhstan. Their total installed capacity is 23,957.3 MW, while the available capacity is 19,004 MW in winter and 17,364.5 MW in summer.

The current depreciation of thermal and hydro-power plants (TPP and HPP), excluding RES, is about 57.5%. About 55.5% of generation equipment at the stations is more than 30 years old, including TPPs – 10,620 MW (55%), HPPs – 1,729.3 MW (62%).

It is planned to: (1) modernize a number of existing generating assets and commission new ones to produce additional 11.7 GW; (2) increase the share of renewable energy to 12.5% in the total generation; (3) reduce depreciation of energy grids to 47%; and, (4) finalize the formation of a unified energy system in the republic.

**The 2022 results.**<sup>52</sup> Energy generation amounted to 112.8 billion kWh (1,582 million kWh less than in 2021); the plan for the current year is 114.9 billion kWh.

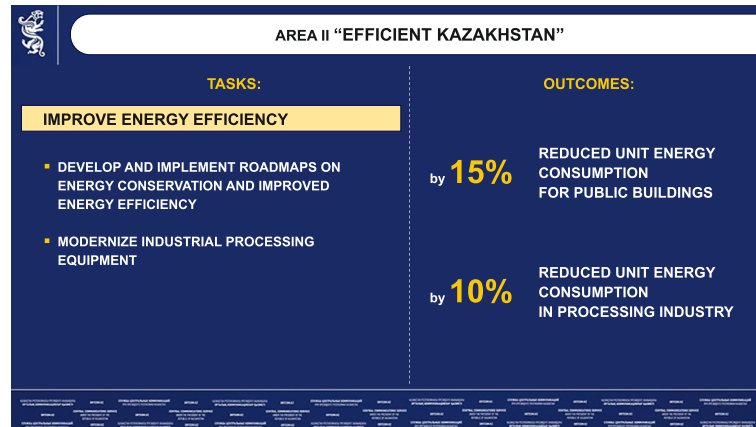
Renewable energy generation is 5.11 billion kWh (2,411 million kWh by wind, 1,763 million kWh by solar; and, 934 million kWh by hydro) or 4.53% of the total energy generation (it is planned to increase this figure to 5% in 2023).

The 2022 showed a 945.7 million kWh or 0.8% decrease in electricity consumption compared to 2021. Power export to the Russian Federation amounted to 1,257.6 million kWh, while the import from this country was 1,142.9 million kWh.

The Kazakhstan Ministry of Energy has developed: (1) a draft "Concept for Energy Development in the Republic of Kazakhstan until 2035", including reformation of the electricity market by transferring to a new model on the base of centralized energy trade; a package of law amendments was prepared as a first stage of implementation of this vision (September 26); (2) the Energy budget of the Republic of Kazakhstan until 2035, as part of which further development of the energy sector, including forecasts for power production and consumption was modeled. Power consumption in the country will grow to 152.9 billion kWh, with the annual average growth rate of 2.7% since 2021. Additional 17.5 GW will need to be commissioned by 2035 to cover the needs of economic sectors and population. The "Tariff in Exchange for Investment" program is under development; it will allow reconstructing, modernizing and expanding existing assets of power producing organizations. It is estimated that investments in the sector will amount to 400 billion KZT annually. In 2023, a **digital energy platform** will be put into operation to manage risks and track technical conditions of plants.

**Energy efficiency.** Energy saving and improved energy efficiency are among the key objectives of the modernization of national infrastructure.

As part of the **national "Green Kazakhstan" project** (second focus area – "Efficient Kazakhstan"), the tasks are to reduce energy consumption in state-financed organizations and increase energy efficiency in industrial entities, including processing industries.



Source: <https://primeminister.kz/ru/news/reviews/za-schet-realizacii-nacproekta-zhasyl-kazakstan-budet-sozdano-poryadka-60-tys-rabochih-mest-s-brekeshev-2691926>

**Latest developments in legislation.** The "Concept for Development of the Fuel and Energy Sector in the Republic of Kazakhstan for 2022-2026" was approved (PPRK No.931 of 21.11.2022).

A law on thermal power<sup>53</sup> that envisages the transition to a new market model for centralized buying and sale of electricity, as well as the introduction of a real-time balancing energy market is to be adopted. These measures will reduce imbalances in the energy system and offset the impact of high tariffs on new energy sources.

**New appointments.** B.U. Akchulakov was appointed the Minister of Energy (UPRK No.756 of 11.01.2022) and A.G. Khasenov became a Vice-Minister (January 15).

## Hydropower

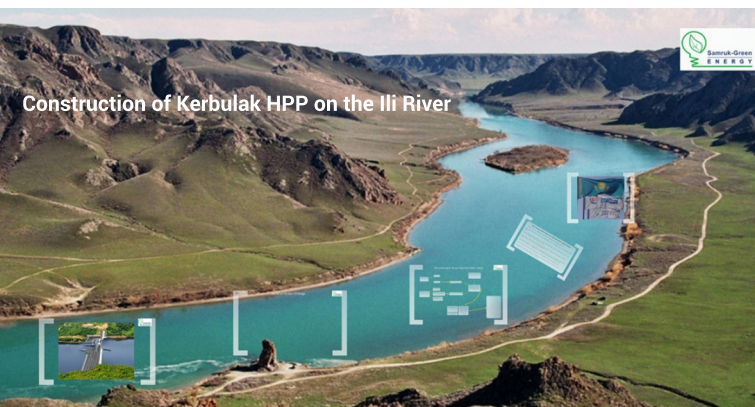
All HPPs in the country generate cumulatively 8-9 billion kWh on average per year. The total hydropower potential is 170 billion kWh a year, of which 62 billion kWh are technically feasible, whereas 30 billion kWh are viewed as economically feasible. Hydropower accounts for about 9% of the total energy generation. The country continues to implement the 2020-2030 Hydropower Development Plan.

**Construction and modernization of HPPs.** Design specifications and estimates were prepared for a vibration control system of hydraulic units at the Kapshagay HPP<sup>54</sup>. To increase its regulation capacity up to

<sup>52</sup> Analytical review for 2022, <https://www.samruk-energy.kz/en/press-center/analytical-review#2022>

<sup>53</sup> see the draft law on <https://legalacts.egov.kz/npc/view?id=14186048>

<sup>54</sup> HPP (design capacity – 434 MW) on the Ili River in Almaty province. Constructed in 1980. Operated by Almaty Power Plants JSC



Construction of Kerbulak HPP on the Ili River

Source: <https://prezi.com/eamhjwgowdt/samruk-green-energy/>

300 MW, the Samruk-Kazyna Fund and JSC Samruk-Energy implement the "Construction of counter-regulating Kerbulak HPP on the Ili River" project (2021-2026, 40 MW).

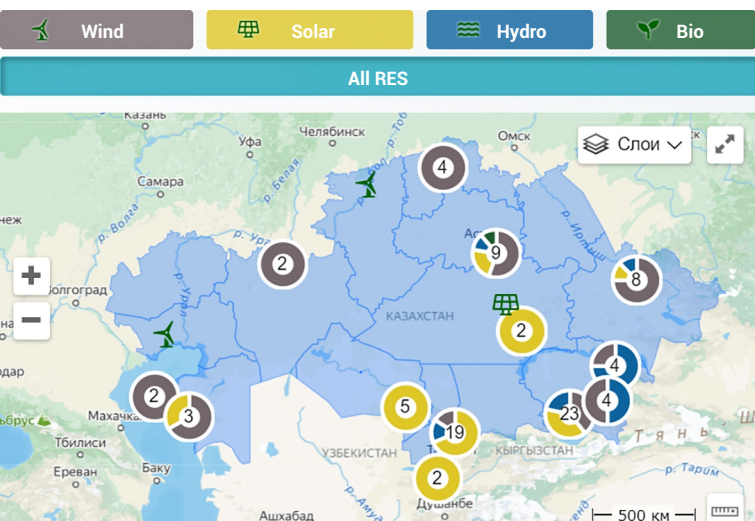
The work is underway on the investment project, which is aimed to increase power generation at the Moynak HPP<sup>55</sup> by 100 million kWh per year.

The project involves transferring a portion of the Kensu River flow to the Bestyubinsk reservoir to extend the regulation capacities in Almaty province.

At Shardara HPP<sup>56</sup>, power generation reached the installed capacity of 126 MW for the first time after reconstruction; all 4 hydropower units are operational.

## Alternative energy sources

### RES facilities in Kazakhstan



Source: <https://rfc.kz/vie/yamaps>, <https://qazaqgreen.com/map/>

There are 130 RES facilities with the installed capacity of 2,400 MW (46 wind plants – 958 MW; 44 solar plants – 1,148 MW; 37 hydro – 280 MW; 3 bio – 1.77 MW).

The Concept of Transition to Green Economy in Kazakhstan<sup>57</sup> and the 2050 Strategy of Kazakhstan set the goals to bring the share of RES in the country's energy budget to 6% in 2025, 15% in 2030, and 50% in 2050.

In 2022, 12 RES projects, with the total capacity of 385 MW were implemented.

In 2023, 15 new 257-MW RES projects are planned to be commissioned.

**Small HPPs.** AO Samruk-Energy conducts the pre-design work on **HPP-29 on the Shelek River**.

For the Almaty Power Plants JSC "Reconstruction and modernization of the cascade of HPPs"<sup>58</sup> project (2022-2028), the feasibility study is developed.

The current and future water balance in the basin of the Big Almatinka River is drafted for the period up to 2040 to this end.

The Board of Directors of the AO Samruk-Energy decided to start the project investment phase in 2023.

**Wind power.** New wind stations were installed: (1) 100-MW "Abay-1" in Abay province; (2) 60-MW wind power plant in Almaty province<sup>59</sup>.

The WPPs will generate 225.7 million kWh to reduce GHG emissions to 206 thousand t and replace about 89 thousand t of conventional fuel per year.

Memoranda/Agreements were signed with:

(1) the Construction Corporation of China Ltd. to cooperate on implementation of the second project phase, with the expansion of the Shelek Corridor WPP and increasing its capacity up to 300 MW;

(2) Masdar (UAE) and KIDF to develop a project for the construction of WPPs in Zhambyl and/or Turkestan provinces. Construction is planned for 2025;

(3) ACWA Power (Saudi Arabia) to construct and operate 1-GW WPP in Zhetysay province (Dzungarian Gate). Construction is planned for 2025;

(4) TotalEnergies for implementation of 1-GW wind project near Mirny settlement in Zhambyl province in 2024-2026.

<sup>55</sup> The 300-MW Moynak HPP is located on the Sharyn River in Raiymbek district of Almaty province. It was built in 2012 as part of the "State program of accelerated industrial-innovative development" and in line with the "Program for Energy Development in the Republic of Kazakhstan until 2030". The design average annual energy generation is 1.027 billion kWh

<sup>56</sup> Shardara HPP in the middle reaches of the Syr Darya River (South-Kazakhstan province) was commissioned in 1967. Installed capacity - 126 MW. The program of full modernization was completed in 2020 by AO Samruk-Energy

<sup>57</sup> UPRK No.577 of 30.05.2013

<sup>58</sup> cascade of small HPPs on the Big and Small Almatinka Rivers in Almaty province. Construction started in 1943. Operated by Almaty Power Plants JSC

<sup>59</sup> project was implemented by AO Energy-Samruk in partnership with the Power Construction Corporation of China Ltd



**Solar power.** The following solar stations were commissioned: (1) 4.95-MW “Ushtobe” plant, with planned annual generation of more than 7 million kWh for Ushtobe town in Almaty province; (2) 50-MW “Aisha kunshuak” plant in Auliekol village, Zhambyl province, etc.

**Events.** The Kazakh delegation took part in the: (1) 13<sup>th</sup> session of the International Renewable Energy Agency/IRENA Assembly (January 14-15, Abu Dhabi, UAE); (2) 27<sup>th</sup> Baku Energy Week (June 1-3, Baku, Azerbaijan); (3) 2<sup>nd</sup> meeting of Energy Ministers of the SCO Member States (June 24, Tashkent, Uzbekistan); (4) 60<sup>th</sup> meeting of the CIS Electric Power Council (July 14, Nur-Sultan, Kazakhstan); (5) conference “Kazakhstan-German hydrogen cooperation: status quo and prospects”<sup>60</sup> (September 7).

### Environment and climate change

**Latest developments in legislation.** To form the legal framework of state policy on flora preservation, protection, restoration and use, the following laws were adopted:

- (1) “On the flora” (No.183-VII of 02.01.2023);
- (2) “On amendments and additions to some legislative acts of the Republic of Kazakhstan on the flora and specially protected natural territories” (No.184-VII of 02.01.2023);
- (3) “On amendments and additions to the Criminal Code and the Code on Criminal Procedure of the Republic of Kazakhstan on strengthening responsibility for environmental offences and manifestations of vandalism” (No.186-VII of 03.01.2023);
- (4) “On amendments and additions to the Code on Administrative Offences of the Republic of Kazakhstan on strengthening administrative responsibility for environmental offenses and manifestations of vandalism” (No.187-VII of 03.01.2023).

**Projects.** During implementation of the “Sustainable Forest Management” (GEF/UNDP) project, the Concept of High Conservation Value Forests (HCVF) for Kazakhstan and the Guidelines on HCVF identification, assessment and management were developed. The Program of additional environmental education was prepared and implemented for school-children of 6-8 grades.

The national “Green Kazakhstan” project is ongoing (first area “Clean Kazakhstan”<sup>61</sup> contributes to addressing major environmental issues, fourth one – “Future of Ecology”<sup>62</sup> – to improving eco-education).

**AREA I “CLEAN KAZAKHSTAN”**

**TASKS:**

**IMPROVE AIR QUALITY**

- REDUCE EMISSIONS OF POLLUTANTS FROM 881.6 THSD T TO **503.4 THSD T/YEAR** AT **16 ENTERPRISES** IN **10 CITIES**

**OUTCOMES:**

By **20%** REDUCED ATMOSPHERIC EMISSIONS BY 16 MAJOR ENTERPRISES

**REDUCED ATMOSPHERIC EMISSIONS BROKEN DOWN BY 16 ENTERPRISES, %**

No	Enterprise	%	No	Enterprise	%
1	Almaty Power Plants JSC	84	9	AO “Astana Energy”	17
2	BMZ “Kazakhstan Smelting”	39	10	AO “AZKS”	45
3	JMZ “Kazakhstan Smelting”	37	11	TOO “Karaganda Energy Center”	29
4	AO “ArselorMittalTemirtau SD”	34	12	TOO “PNMZ”	39
5	TOO “ANPZ”	35	13	AO “Aluminy Kazakhstan”	35
6	TOO “Kazinc” UKMK	31	14	TOO “UK TPP”	16
7	TOO “PKOP”	30	15	AO “Aktobe TPP”	5
8	AO “TKK Kazhrom” AEF	37	16	TOO “Stroydetal”	7

**AREA I “CLEAN KAZAKHSTAN”**

**TASKS:**

**SUSTAINABLE WASTE MANAGEMENT**

- CONSTRUCT **6 FACILITIES** FOR SMW THERMAL UTILIZATION USING WASTE-TO-ENERGY TECHNOLOGY
- SEPARATE COLLECTION INFRASTRUCTURE (8.6 THSD CONTAINERS)
- INCREASE SEPARATE COLLECTION (BY HAZARDOUS SPECIES) FROM 50% TO **100%**
- PROMOTE SEPARATE WASTE COLLECTION AMONG POPULATION, ORGANIZE EVENTS AND CAMPAIGNS AT THE LOCAL AND NATIONAL LEVEL

**OUTCOMES:**

60% → **83%** SEPARATE COLLECTION INCREASED

18% → **34%** SMW

36% → **46%** INDUSTRIAL WASTE

INCREASED SHARE OF TREATMENT AND UTILIZATION

**AREA I “CLEAN KAZAKHSTAN”**

**TASKS:**

**PRESERVE AQUATIC ECOSYSTEMS**

- DREDGING WORK TO INCREASE CARRYING CAPACITY OF **133.4 KM** OF RIVERS (ILI, KARATAL, SYR DARYA) AND LAKES (BOROVOYE, SHCHUCHYE, KOPA)
- IMPLEMENT PROJECT “IMPROVEMENT OF THE SYR DARYA RIVER CHANNEL AND PRESERVATION OF THE NORTHERN PART OF THE ARAL SEA-2”

**OUTCOMES:**

not less than **12** km<sup>3</sup>/year INFLOW TO BALKHASH LAKE

by **35%** INCREASED VOLUME IN THE NORTHERN PART OF THE ARAL SEA

✓ **4 LAKES** RESTORED: BOROVOYE, SHCHUCHYE, KOPA, SHALKAR

**AREA IV “FUTURE OF ECOLOGY”**

**TASKS:**

**INTEGRATE ENVIRONMENTAL ASPECTS INTO FORMAL EDUCATION AND AWARENESS-RAISING SYSTEMS**

- INTRODUCE NEW COURSE ON ECOLOGY IN THE 6<sup>th</sup> GRADE PROGRAM
- DEVELOP A PLATFORM OF 48 FACILITIES FOR SUPPLEMENTARY ECOLOGICAL AND BIOLOGICAL EDUCATION
- HOLD ANNUAL NATIONAL CONTEST “BEST ORGANIZATION FOR ECO-EDUCATION”

**FORM ENVIRONMENTALLY ORIENTED INFORMATION SPACE**

- DEVELOP AND IMPLEMENT A NATIONAL MEDIA PLAN TO INCREASE ECO-CULTURE
- ENVIRONMENTAL CAMPAIGN “TOGETHER – CLEAN KAZAKHSTAN”

**OUTCOMES:**

**100%** SECONDARY SCHOOL STUDENTS ENROLLED IN ECO-DISCIPLINES

✓ ACCESS FOR STUDENTS TO BEST GREEN PRACTICES AND TECHNOLOGIES

15% → **50%** CITIZENS COVERED WITH ENVIRONMENTAL INFORMATION CAMPAIGN

Source: <https://primeminister.kz/ru/news/reviews/za-schet-realizacii-nacproekta-zhasyl-kazakistan-budet-sozdano-poryadka-60-tys-rabochih-mest-s-brekeshev-2691926>

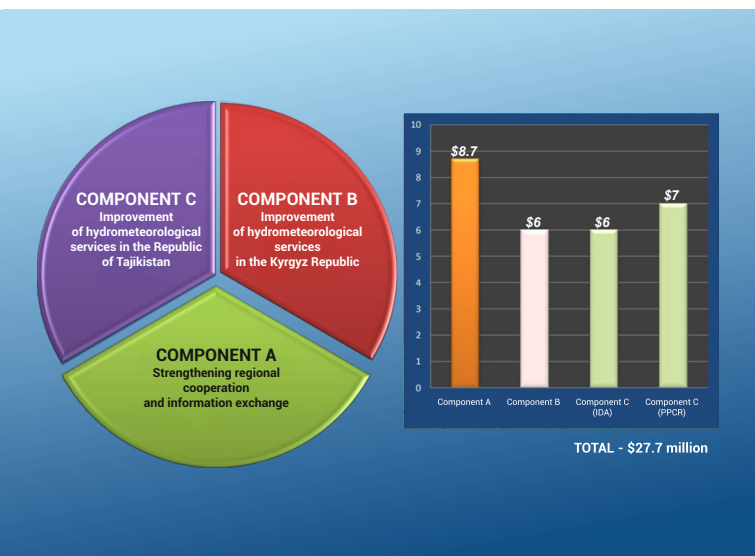
<sup>60</sup> with the support of the German Energy Agency DENA and the representative office of the German Economy in Central Asia within the framework of the Kazakhstan-Germany Energy Dialogue. The Kazakh ME is developing the “Concept of hydrogen energy development strategy”. An agreement has been reached with DENA energy agency to provide support

<sup>61</sup> contributes to addressing major environmental issues such as improving air quality and waste management and preserving the aquatic ecosystems in the country

<sup>62</sup> aimed at improving the level of eco-products and culture of the population

61

The regional “Central Asia Hydrometeorology Modernization” project was continued (WB, stage I: September 1, 2011-December 31, 2018, stage II: January 1, 2019-March 30, 2023); the key tasks are as follows: (1) rehabilitation of infrastructure and human capacity; (2) dealing with climate change effects; (3) support of economic development in water, agriculture, energy and transportation. The implementation progress for 2022, work program and action plan for 2023 were discussed by the CA countries at the annual meeting of the project Steering Committee (November 24, Almaty).



The large-scale afforestation was continued: 239 million trees were planted on 166 thousand ha in 2022, and additional 409 million trees are planned on 188 thousand ha in 2023. The afforestation work is underway on the dried bed of the Aral Sea on 250 thousand ha.

As part of the “Environmental Restoration of the Aral Sea I” project (ERAS-I)<sup>63</sup> (USAID, \$35 million, October 2021 – September 2024), about 200 thousand seedlings of black saxaul planted on 18 plots (5 ha each) are under monitoring.

Based on the survival and plant growth, the most effective and efficient afforestation practices will be identified. A field station was constructed; work has been commenced on a borehole well to provide irrigation to the site.

For UNDP projects, see [United Nations and its Specialized Agencies](https://www.undp.org/kazakhstan/projects), and <https://www.undp.org/kazakhstan/projects>.

**Events.** In 2022, the National Hydrometeorological Service of Kazakhstan celebrated its 100<sup>th</sup> anniversary (May 30). RSE “KazHydromet” opened access to the:

(1) State Climate Cadastre, which consists of 3 parts: meteorological monthly reference books; meteorological yearbooks; reference books on climate in Kazakhstan; (2) meteorological database.

The following events were held: (1) environmental campaigns – “Birge – taza Qazaqstan” (Together for Clean Kazakhstan) (March), world clean-up day “Think globally, act locally” (September 17), “No littering in nature!” (October); (2) international conference on environmental protection (June 3, Mangistau); (3) regional youth conference on climate and water in Central Asia (RCOY Central Asia) (October 24-27, Astana).

The Kazakh delegation took part in the: (1) 34<sup>th</sup> session of the International Coordinating Council of the UNESCO Man and the Biosphere Program, which approved the decision to include the Burabay national park (Akmola province) and the Markakol state nature reserve (East-Kazakhstan province) in the UNESCO World Network of Biosphere Reserves<sup>64</sup> (June 13-17, Paris, France); (2) international conference “Climate migration in Central Asia: challenges and solutions” (October 19, Tashkent, Uzbekistan); (3) Global Climate Change Conference (COP27), where the MoU on strategic partnership on sustainable raw materials, batteries and green hydrogen value chains and the Framework Agreement with Fortescue Future Industries<sup>65</sup> on the implementation of green hydrogen production projects in several regions of the country, including Atyrau and Mangistau provinces, were signed (November 7-18, Sharm el-Sheikh, Egypt); (4) 7<sup>th</sup> ESCAP ministerial conference on environment and development (November 30, Bangkok, Thailand).

**International cooperation.** The MEGNR RK signed the MoUs: (1) on forestry cooperation with the Committee of Forestry and Wildlife and the General Directorate of Forestry of the Ministry of Agriculture and Forestry of the Republic of Turkey and on environmental cooperation with the Ministry of Environment, Urban Development and Climate Change of the Republic of Turkey (May 10-11, Ankara, Turkey); (2) on environmental cooperation with the Ministry of Environment of the Czech Republic (October 3, Prague, Czech Republic); (3) on forestry with the State Committee on Forestry of the Republic of Uzbekistan. The Agreement between the Governments of Kazakhstan and Uzbekistan on environmental cooperation was also signed (December 21-22, Tashkent, Uzbekistan), see [Bilateral Water Cooperation between the Countries of Central Asia](#).

### SDGs in Kazakhstan

Kazakhstan ranked 65 among 163 countries in the annual sustainable development rating.

<sup>63</sup> implemented by the USAID “Regional Water and Environment” project with the assistance of ED-IFAS in the Republic of Kazakhstan in close cooperation with the MEGNR RK and local executive bodies

<sup>64</sup> Biosphere reserves are the areas of terrestrial and coastal/marine ecosystems, or a combination thereof, which are internationally recognized within the framework of UNESCO’s Program on Man and the Biosphere (MAB)

<sup>65</sup> global clean energy company, <https://ffi.com.au/>

## Kazakhstan

Eastern Europe and Central Asia



OVERVIEW INDICATORS



SDG Dashboards and Trends



Dashboards: ● SDG achieved ● Challenges remain ● Significant challenges remain ● Major challenges remain ● Information unavailable  
Trends: ↑ On track or maintaining SDG achievement → Moderately improving → Stagnating ↓ Decreasing → Trend information unavailable

**Events.** In the course of the year, the following events were held: (1) 2<sup>nd</sup> Regional SDG summit “Beyond COVID – towards just recovery in Central Asia” (June 16, Almaty); (2) field seminars to promote SDGs (March 13-April 15, throughout Kazakhstan); (3) seminar on localization of SDGs and Mission 2030 business game (March 29, Almaty); (4) 6<sup>th</sup> North and Central Asia multi-stakeholder forum on implementation of the Sustainable Development Goals (October 6-7, Almaty).

Kazakhstan delegations participated in the: (1) UN High-level Political Forum on SDGs (July 5-15, New York, USA), where Kazakhstan presented its second [Voluntary National Review on the implementation of SDGs](#)<sup>66</sup>; (2) roundtable “Accelerating achievement of SDGs by 2030: addressing on-going crises and overcoming challenges” (July 14, New York); (3) side-event “Localizing SDGs in Kazakhstan: partnership for present and future generations” (July 15, New York).

### Emergencies and Disasters

Over 13 thousand natural and anthropogenic emergencies were registered throughout the country in 2022. The damage from natural disasters was estimated at 36,663.73 million KZT. As a result of floods and showers in spring and summer, houses and crops were flooded, livestock died, and roadbeds were destroyed.

**Preventive measures.** As part of implementation of the Comprehensive Plan for Mudflow, Landslide and Avalanche Safety for 2020-2024, construction of mudflow retaining dams on the Aksai and Ayusai rivers was continued to protect the population of Almaty and Almaty provinces and minimize economic damage from mudflows. Kazakhstan, together with PRC, is also constructing the Chukurbulak mudflow retaining dam, as well as protective structures on the Khorgos

River. Ongoing activities: (1) cleaning of river beds, lakes, drainage channels and ditch networks; (2) bank protection on rivers in West-Kazakhstan, Karaganda, Atyrau provinces and Almaty city; (3) republican test of the civil warning system; (4) construction of drainage channels.

**Projects.** Within the framework of the “Improving the methodology and practice of disaster risk monitoring and assessment using innovative ICT” project (OSCE): disaster risk monitoring and assessment of high-altitude breakthrough lakes was carried out in the basin of the Ulken River (Almaty) using innovative ICT; proposals to reduce the risk of emergencies, “Recommendations on methodology and practice of disaster risk monitoring, assessment and evaluation using ICT”, and an interactive map of the Ulken River basin were developed; an interim narrative report with annexes was prepared.

**Events.** The delegation of Kazakhstan participated in the: (1) regional forum of heads of emergency agencies of the CA countries (October 4-6, Dushanbe, Tajikistan); (2) 55<sup>th</sup> session of the Executive Council and the 25<sup>th</sup> session of the General Assembly of the International Civil Defense Organization (November 22-24, Abu Dhabi, UAE); (3) events on building resilience to disasters and climate change in CA (November 28-29, Brussels, Belgium); (4) 8<sup>th</sup> summit of ministers of emergency situations of the Organization of Turkic States (December 21, Ankara, Turkey).

### Foreign Policy and International Cooperation

In 2022, the Head of State paid state, official and working visits to the PRC, Russian Federation, Uzbekistan, Qatar, Turkey, IRI, Saudi Arabia, USA, France, Azerbaijan, Kyrgyzstan, UAE, Turkmenistan, and Armenia.

#### Development of alliances and strategic partnerships.

In May, K.-J. Tokayev paid an official visit to Kyrgyzstan, where: (1) a number of bilateral cooperation documents were signed; (2) aspects of the Kazakhstan-Kyrgyzstan strategic partnership were discussed, with a special focus paid to expanding ties in the political, trade and economic, cultural and humanitarian spheres; (2) issues on the regional agenda were addressed (May 26, Bishkek, Kyrgyzstan), see [Bilateral Water Cooperation between the Countries of Central Asia](#).

In December, the President of Kazakhstan paid a state visit to Uzbekistan (December 21-22, Tashkent, Uzbekistan), in the course of which: (1) aspects of the Kazakh-Uzbek strategic partnership, energy cooperation, transboundary river sharing, international and regional agenda were discussed; (2) Agreement on Allied Relations between RK and RUZ and a number of other bilateral cooperation documents were signed; (3) a ceremony was held to launch the construction

<sup>66</sup> First [Voluntary National Review](#) presented at the UN High-Level Political Forum on July 9-18, 2019 New York, USA

of joint facilities (December 22); a joint media briefing was held (December 22). See [Bilateral Water Cooperation between the Countries of Central Asia](#).

The President of Kazakhstan also took part in the: (1) CSTO meetings; (2) summits "Central Asia-China" (January 25, online) and "Central Asia-India" (January 27, online); (3) EAEU meetings; (4) 6<sup>th</sup> Caspian summit, which resulted in the adoption of the Communiqué (June 29, Ashgabat, Turkmenistan); (5) 4<sup>th</sup> consultative meeting of the Heads of States of Central Asia (July 21, Cholpon-Ata, Kyrgyzstan); (6) meeting of the SCO Council of Heads of State in a narrow and expanded formats (September 16, Samarkand, Uzbekistan); (7) summit of the Organization of Turkic States (November 11, Samarkand, Uzbekistan).

Kazakhstan hosted: the Central Asia-Russia summit (October 14, Astana); 1<sup>st</sup> meeting of the Heads of State of CA and EU (October 27, Astana). The delegation of Kazakhstan participated in the international conference "Afghanistan: security and economic development" (July 25-26, Tashkent, Uzbekistan).

**Chairmanship in international organizations.** Kazakhstan held the presidency of CIS in 2022<sup>67</sup> and organized meetings of the CIS Council of Heads of State (October 14, Astana), Council of Heads of Government (October 28, Astana), Council of Ministers of Foreign Affairs (October 12, Astana). The 77<sup>th</sup> session of the UNGA adopted a special resolution on "Cooperation between the United Nations and the Commonwealth of Independent States"<sup>68</sup>, which was introduced for discussion by Kazakhstan and supported by the UN Member States (November 21, New York, USA). In addition, the President participated in informal meetings of the Heads of CIS Member States (October 7 and December 26, Saint Petersburg, Russia).

As part of its chairmanship in the CICA, Kazakhstan hosted an informal ministerial meeting (21 September, New York, USA), the CICA 30<sup>th</sup> anniversary meeting (5 October, Astana), and the 6<sup>th</sup> anniversary CICA summit (October 12-13, Astana). The 6<sup>th</sup> summit resulted in the adoption of a number of documents, including the Astana Statement. Kazakhstan's chairmanship in the CICA was extended until 2024.

**Promotion of the national interests and reinforcement of the country's image.** Kazakhstan actively cooperates with the OIC, UN, EU, OSCE, ECO and others.

In 2022, the Kazakh MFA and the Office of the UN Resident Coordinator jointly held an international conference "30 years of Kazakhstan's accession to the United Nations" (March 2, Astana). At the 76<sup>th</sup> session of the UNGA, Kazakhstan was elected to the UN Human Rights Council for 2022-2024 (October 14, 2021, New York, USA). Priority areas of Kazakhstan's

work in the Council include promoting gender equality and women's empowerment, ensuring inclusive and universal education, and others. Speaking at the 77<sup>th</sup> session of the UNGA, K.-J. Tokayev noted: "We intend to work together with all stakeholders to address a pressing regional agenda that includes climate change, the Aral Sea, rational use of water resources, ... we consider it important to establish the UN Regional Centre for SDGs for Central Asia and Afghanistan in Almaty" (September 20, New York, USA). The President of Kazakhstan participated in the Global Food Security Summit (September 21, New York, USA).

At the 7<sup>th</sup> meeting of the ESCAP Committee on Environment and Development, Vice-Minister of Ecology, Geology and Natural Resources Z. Suleymenova was elected Vice-Chair of the Committee and made a country presentation under the agenda item "Protecting our planet through regional cooperation and solidarity in Asia and the Pacific" (November 29-December 1, Bangkok, Thailand).

#### Sources:

Official sites of the:

President, [www.akorda.kz/ru](http://www.akorda.kz/ru)

Ministry of Foreign Affairs, <https://www.gov.kz/memleket/entities/mfa?lang=ru>

Ministry of Ecology, Geology and Natural Resources [www.gov.kz/memleket/entities/ecogeo/about?lan%20g=u&lang=ru](http://www.gov.kz/memleket/entities/ecogeo/about?lan%20g=u&lang=ru)

Ministry of Agriculture, [www.gov.kz/memleket/entities/moa?lang=ru](http://www.gov.kz/memleket/entities/moa?lang=ru)

Ministry of Energy, [www.gov.kz/memleket/entities/energo?lang=ru](http://www.gov.kz/memleket/entities/energo?lang=ru)

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Institute of Economic Research, <https://economy.kz/ru/>

Information agencies:

<https://inbusiness.kz/ru>

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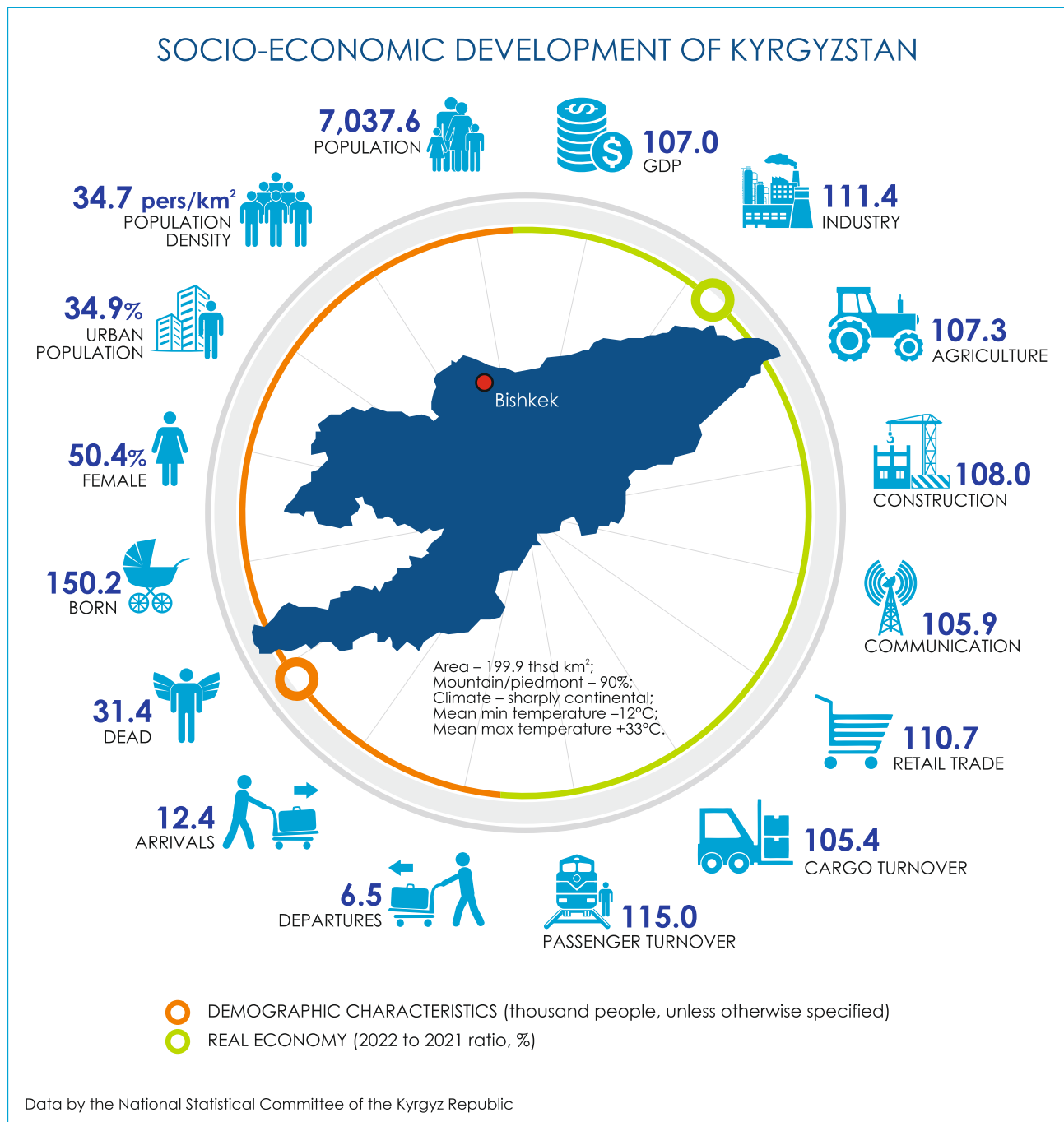
<https://kaztag.kz/ru>

<https://centrasia.org>

<sup>67</sup> in 2023, the chairmanship of CIS will pass to KR

<sup>68</sup> 39<sup>th</sup> plenary meeting

## 5.2. Kyrgyz Republic



### Water Sector

**Water resources.** The total available water resources in the Kyrgyz Republic are estimated at 2,458 km<sup>3</sup>, including 650 km<sup>3</sup> (26.4%) in glaciers, 1,745 km<sup>3</sup> (71%) in lakes, 13 km<sup>3</sup> (0.5%) as potentially usable groundwater and mineral thermal resources, and 44.5 to 51.9 km<sup>3</sup> (2%) as average annual river runoff. The total annual volume of renewable water resources is estimated at 46.5 km<sup>3</sup>. The country has over 3,500 watercourses, including 30 large rivers. The average annual

river runoff formed in the country is 44.5 km<sup>3</sup> and reaches 47.2 km<sup>3</sup> if return water is included.

**Water management system.** 956.3 million KGS was allocated for repair and rehabilitation of public water facilities<sup>69</sup> that are under responsibility of the Water Resources Service (WRS). 125.7 km of 236.8-km canals and collector-drainage systems were repaired, 40.4 km were coated and 773.2 km were mechanically cleaned. 590 hydraulic structures, 307 gauging stations, and 105 pumping stations underwent repair.

<sup>69</sup> Resolution of the Kyrgyz Cabinet of Ministers "On state support to national irrigation", No.76-p of 18.02.2022

The first stage of construction of the Algakadam irrigation canal (Kadamzhay, Batken province) was completed<sup>70</sup>. The 27.8-km canal will irrigate 4,200 ha. The tentative project cost is 634.2 million KGS that will be covered by the republican budget and OO "Algakadam".

#### Projects. Ongoing projects:

- "Additional financing to the National Water Resources Management Project"/AF NWRMP (WB, SDC) – a number of trainings was held: (1) "Capacity building of personnel from CWA<sup>71</sup>, BWA<sup>72</sup>, and DWA<sup>73</sup> in implementation of the 2TP-Vodkhoz water information system" (March 1-2, WRS, Bishkek; March 17-18, 29-30, Osh CWA); (2) Management, operation and maintenance (MO&M) of inter-farm systems of WUA Unions (March 17, Chu CWA, Bishkek); (3) "Improved water use efficiency" and "Determination of MO&M cost needs for the irrigation investment plan in 30 selected irrigation and drainage systems" – for personnel of the Water Use and Repair and Construction Departments of CWA and DWA in southern region, as well as Chu, Issyk-Kul, Talas and Naryn CWAs (May 25-26, Osh; May 31-June 1, Chu CWA); (4) "Capacity building of specialists from CWA, BWA, and DWA in implementation of an online database on water use" (May 25-26, May 30-June 1, November 3-4, WRS, Bishkek); (5) "Establishment and development of 30 public water councils (PWC)" (October 14, Chu CWA) and a series of trainings to build capacities of 30 PWCs established under the project (4<sup>th</sup> quarter, Taraz, Karaol, Naryn, Osh, and Kadamzhay cities); (6) "MO&M of inter-farm systems in the WUA Unions" (November 15, WRS and November 17, Osh CWA), etc.

The following project activities were organized: (1) discussion on the draft national irrigation and drainage policy (June 23, Chu CWA); (2) technical meeting on installation of instrumentation and control of the irrigation system on the Western Big Chu Canal<sup>74</sup> (July 21, WRS, Bishkek); (3) workshop "Capacity building of personnel at the Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic and specialized agencies on basin approach to water management" (November 29, Bishkek).

- "National Water Resources Management Project" (SDC, WB) – (1) the Water Resources Service developed a draft of 2040 National Water Strategy<sup>75</sup>; (2) territorial boundaries of the main Kyrgyz river basins

were identified to implement the basin approach to water resources management.

- project "Climate change and disaster-resilient water resources sector" (ADB, \$43.6 million, 2019-2025), which aims at improvement of infrastructure resilience to climate change and natural disasters and at water security. Project components: (1) modernization of irrigation infrastructure (four inter-farm irrigation canals – "Right branch" in Nookan Bazar-Korgon districts of Zhalal-Abad province, "Saparbaevo 1 and 2" in Nookta district of Osh province, "Kozho Kaiyr" in Kadamzhay district of Batken province, "Osmon" in Chu district of Chu province – and on-farm canals in the above locations); (2) enhancement of irrigation system and agricultural land management; (3) improvement of disaster risk management capacity at the national level (training of target WUA members and farmers in methods of crop storage and marketing, rational use of irrigation water, drip irrigation, greenhouse farming, administrative and financial management, etc.). The project progress report is available on [https://water-climate.kg/?page\\_id=1505&lang=en](https://water-climate.kg/?page_id=1505&lang=en).

- "USAID regional water and vulnerable environment activity" (USAID, \$21.5 million, August 2022-July 2025) aimed to strengthen regional capacity to manage shared water resources and mitigate environmental risks in the Syr Darya and Amu Darya River basins. The following events were organized: (1) Syr Darya River Day in the republic (August 25, Osh); (2) a meeting of the Network of Academic Societies, where the opportunities for integrating concepts of IRWM and the Water-Energy-Food-Environment (WEFE) Nexus into curricula were discussed and a Community of Practice that will serve as an online knowledge repository and discussion platform for water specialists in the region was launched (November 10, Bishkek).

Agreements were signed with (1) EBRD (€17.87 million) for the "Climate-resilient water supply in the Kyrgyz Republic"<sup>76</sup> project, which envisages modernization and reconstruction of the Aravan-Ak-Buura canal in Osh province; (2) WB to support the "Climate resilient water services" project (WB, \$100 million, 2022-2028)<sup>77,78,79</sup> which envisages rehabilitation of three existing irrigation and drainage systems in the Kara Darya-Syr Darya-Amu Darya River basins (Osh, Batken and part of Zhalal-Abad provinces); rehabilitation of exis-

<sup>70</sup> the project is implemented by "Algakadam" NGO based on PPP

<sup>71</sup> Central Water Administration

<sup>72</sup> Basin Water Administration

<sup>73</sup> District Water Administration

<sup>74</sup> largest main canal in Kyrgyzstan, Chu Valley, [https://www.water.gov.kg/index.php?option=com\\_k2&view=item&id=1160:irrigatsionnye-obekty-gotovyatsya-k-polivnomu-sezonu&Itemid=1437&lang=ru](https://www.water.gov.kg/index.php?option=com_k2&view=item&id=1160:irrigatsionnye-obekty-gotovyatsya-k-polivnomu-sezonu&Itemid=1437&lang=ru)

<sup>75</sup> Presidential Decree No.23 of 10.02.2023 approved the National Water Strategy of the Kyrgyz Republic until 2040

<sup>76</sup> draft loan and grant agreement on the project between KR and EBRD was approved by the PKM KR No.360-p of 28.06.2022 and No.532-p of 04.10.2022

<sup>77</sup> project aims to: (1) improve access to climate-resilient water services in selected river basins and (2) strengthen institutional capacity for climate-resilient water resource management at local and national levels

<sup>78</sup> Draft Financing Agreement between the Kyrgyz Republic and IDA approved by the PKM KR No.205-p of 15.04.22, the draft law on ratification of the Agreement was sent for a vote. The project officially went into effect on October 31

<sup>79</sup> for project documents, see the link [https://www.water.gov.kg/index.php?option=com\\_content&view=article&id=449&Itemid=1562&lang=ru](https://www.water.gov.kg/index.php?option=com_content&view=article&id=449&Itemid=1562&lang=ru)

ting and construction of new water supply, sewerage and treatment facilities<sup>80</sup> in Kyzyl-Suu, Bokonbaevo and Kadzhi-Say villages (Issyk-Kul province), and construction of water supply systems with connection of households in 38 villages of Batken province.

In January 2023, a pilot project will be launched on organization of integrated maintenance and development of irrigation systems, drinking water supply systems, as well as pasture management in aiyl aymaks in Naryn province (PKM KR No.713 of 26.12.2022). Implementation is also considered in aiyl aymaks of other provinces.

For UNDP projects, see "[United Nations and its Specialized Agencies](#)".

**International cooperation.** The draft agreement between the Government of Kyrgyzstan and the Government of Uzbekistan on joint water management of the Kempirabad (Andizhan) reservoir (Resolution of KM KR No.596-p of 02.11.2022) and the conclusion of the Kyrgyz Cabinet of Ministers to the Agreement (Resolution of KM KR No.615-p of 11.11.2022) were approved; the relevant law of the Kyrgyz Republic on ratification of the agreement was adopted later (ZKR No.111 of 28.11.2022). The draft cooperation agreement was adopted between the Kyrgyz and Uzbek water agencies (Resolution of KM KR No.593-p of 02.11.2022).

**Events.** The Kyrgyz delegation participated in the: (1) 2<sup>nd</sup> high-level international conference on the International Decade for Action "Water for Sustainable Development, 2018-2028" (June 6-9, Dushanbe, Tajikistan); (2) World Water Week "Seeing the unseen: the value of water" ([August 23-September 1](#), Stockholm, Sweden, online); (3) IWA World Water Congress & Exhibition (September 11-15, Copenhagen, Denmark); (4) 7<sup>th</sup> meeting of the Task Force on Water-Food-Energy-Ecosystems Nexus (December 12-13, Geneva, hybrid format).

## Drinking Water Supply

According to the State Agency of Architecture, Construction and Housing and Communal Services<sup>81</sup>, 82 treatment and drinking water supply facilities were put into operation; drinking water supply systems were constructed in 39 villages in Chu, Issyk-Kul, Zhalal-Abad, Osh, Batken, and Naryn provinces, and 90,808 people were provided with drinking water. Nevertheless, water supply problems remain in 1,873 villages, in particular, 346 villages lack drinking water supply pipes, the latter need to be replaced in 470 villages and require partial rehabilitation in the remaining villages.

**Public administration reforms.** The **Department of Construction and Engineering Infrastructure** was formed at the State Agency of Architecture, Construction and Housing and Communal Services. This is the legal successor of the Department of Housing and Civil Construction and the Department of Drinking Water Supply and Sewerage under Gosstroy (PKM KR No.260 of 20.05.2022). The new Department is responsible for construction, reconstruction, overhaul and operation of centralized drinking water supply, water disposal and sewage treatment facilities in rural areas and cities of district significance, etc.

**Latest developments in legislation.** Draft Government resolution on drinking water supply and sanitation was put out for public discussion.

**Projects and programs.** In Bishkek, it is planned to implement the "Digital Water Utility" project, which will implement a unified system for management and optimization of operation of urban water supply facilities through installation of water meters and GIS system at the central dispatch center.

Nine international donors financed water supply and sanitation projects in Kyrgyzstan<sup>82</sup>. In particular, (1) **WB** allocated \$62.6 million for construction of water mains in 95 villages of Chu, Osh and Issyk-Kul provinces: the work was completed in 54 settlements, including 14 settlements in 2022; (2) **IsDB** allocated \$23 million for construction of water mains in 25 villages in Zhalal-Abad province: the work was completed in 21 villages, including 11 villages in 2022; (3) **IsDB** and **Saudi Fund for Development** allocated \$60 million to provide drinking water to 44 villages in Batken province and 17 villages in Talas province; (4) **ADB's** \$32.9 million will be used to provide drinking water to 43 villages in Naryn province<sup>83</sup>; (5) **EBRD's** €192.012 million will be used to construct and rehabilitate sewerage treatment and drinking water supply facilities in 20 towns and 8 villages in 2023-2025. In 2022, funding was approved for the WB "[Climate resilient water services](#)" project (see details [above](#)). To repay the loans, the state intends to raise tariffs per 1 m<sup>3</sup> of drinking water from 10.5 to 22.7 KGS in cities and from 8.8 to 30.8 KGS in villages.

The "Cholpon-Ata Water" project is underway<sup>84</sup> (EBRD, €5.1 million).

The water supply systems were inaugurated in: (1) Kara-Zhygach village of Alamudun district, Chu province (project "Sustainable rural water supply and sanitation development", WB, IDA); (2) Besh-Moynok, Toboy and Zhar-Kyshtak villages in Suzak district of Zhalal-Abad province (project "Rural water supply and sanitation improvement", IsDB). For more infor-

<sup>80</sup> the responsible agency for this part of work is the State Agency of Architecture, Construction and Housing and Communal Services under the KM KR

<sup>81</sup> meeting of the Committee of Zhogorku Kenesh on agrarian policy, water resources, ecology and regional development of January 23, 2023

<sup>82</sup> information of the State Agency of Architecture, Construction and Housing and Communal Services at the meeting of the Committee of Zhogorku Kenesh on agrarian policy, water resources, ecology and regional development on January 23, 2023

<sup>83</sup> Rural water supply and sanitation development program in Naryn Province, 2020-2027

<sup>84</sup> Resolution of KM KR No.231-p of 28.04.2022

mation on project activities of the Community Development and Investment Agency in 2022, see <https://www.aris.kg/index.php?lang=ru>.

The Board of the Eurasian Fund for Stabilization and Development [approved](#) the conclusion (\$30.8 million) on the preliminary application for an investment loan to finance the project "Improved water supply and sanitation in rural settlements of Osh province in the Kyrgyz Republic" and the concept of this project.

## Agriculture

**Irrigated area.** According to the State Statistics Committee of the Kyrgyz Republic, the total crop acreage reached 1,228.8 thousand ha, which is 2.5 thousand ha more compared to 2021. As the cropping patterns, grain crops are grown on 579.9 thousand ha (47.2% of all crop area), pulses – on 57.1 thousand ha (4.6%), oilseeds – on 17.9 thousand ha (1.5%), cotton – on 21.6 thousand ha (1.8%), tobacco – on 0.47 thousand ha (0.03%), sugar beet – on 9 thousand ha (0.7%), potatoes – on 74.2 thousand ha (6%), vegetable and forage crops – on 55.3 thousand ha (4.5%) and 390 thousand ha (31.7%), respectively, and other crops (rice, cucurbits, etc.) – on 23.3 thousand ha (2%).

**Production.** Compared to the same period of 2021, the gross yield of crops increased significantly: barley – 2 times, wheat – 1.6 times, sugar beet – 20%, cotton – 14%, tobacco – 10%, oilseeds – 10%, corn for grain – 5%, vegetables – 4%, and fruits and berries – 3%.

**Latest developments in legislation.** Amendments were made to: (1) Government Resolution PKM KR No.116 of 06.08.2021 "On subdivisions and organizations of the Ministry of Agriculture, Water Management and Regional Development of the Kyrgyz Republic" (PKM KR No.114 of 04.03.2022, No.434 of 01.08.2022); (2) Land Code of KR, Forest Code of KR, Law "On transfer (transformation) of land plots", Law "On pastures", etc. (ZKR No.6 of 20.01.2022, No.22 of 01.04.2022, No.84 of 05.08.2022, No.85 of 05.08.2022); (3) Government Resolution PKM KR No.309 of 17.12.2021 "On agroindustry development in the Kyrgyz Republic" (PKM KR No.494 of 09.09.2022). According to Government Resolution PKM KR No.82 of 18.02.2022 "On development of agriscience in breeding livestock and irrigation", the Kyrgyz Research Institute for Irrigation was transferred to the Kyrgyz Ministry of Agriculture, its Charter was approved, changes were made to the structure and management of the Research Institute, etc.

The following laws and resolutions were adopted: Law No.21 of 01.04.2022 "On regulation of land relations"; Decree UP 109 of 08.04.2022 "On measures to prevent and suppress the facts of illegal unauthorized seizure of lands"; Resolution PKM KR No.291 of

31.05.2022 "On approval of the Regulations on the procedure for land amnesty"; Resolution PKM KR No.137 of 11.03.2022 "On measures to ensure food security and support domestic agricultural producers and peasant (farm) households in the Kyrgyz Republic" (read with PKM KR No.249 of 30.04.2022, No.479 of 01.09.2022, No.717 of 28.12.2022).

**Projects.** The "Agriculture financing-10"<sup>85</sup> project was approved (PKM KR No.3-p of 12.01.2022) to provide domestic agricultural producers with concessional loans for the development of crop and livestock production and agroindustry. As of 24.11.2022, 8,336 rural commodity producers received loans for 4,774.77 million KGS.

Ongoing projects: (1) "Support to development of a green agriculture by local communities"/GoGreen (EU) to contribute to the climate change mitigation through the development of a model of agricultural value chain; (2) "Agriculture productivity and nutrition improvement"/APNIP (US \$38 million, GAFSP<sup>86</sup>, WB, 2015-2023) to improve food security of rural households in selected areas throughout the country.

For UNDP projects, activities of IFAD in rural development and FAO in agriculture and food in Kyrgyzstan, see "United Nations and its Specialized Agencies".

## Energy

**Latest developments in legislation.** The "Concept for restructuring the energy sector management system in the Kyrgyz Republic" was approved; it aims to ensure effective management of energy sector and reliable energy supply to consumers and to improve energy services (Resolution No.51-p of 08.02.2022). Law No.49 "On renewable energy sources" was adopted on 30.06.2022; it establishes legal, institutional, economic and financial framework, mechanisms for regulating relations between the state, producers, suppliers and consumers of RES.

The following documents were approved: (1) conclusion of the Kyrgyz Cabinet of Ministers on the draft law on "amendments to the law of the Kyrgyz Republic on electricity" (Resolution No. 391 of 02.06.2022); (2) draft financing agreement between Kyrgyzstan and IDA (WB) on the project "Modernization and sustainable development of the electricity sector" (Resolution No.528-p of 04.10.2022).

**Hydropower construction and modernization.** The "Electric Power Plants" JSC works on the projects: (1) "Reconstruction of At-Bashi HPP" (Naryn province, Swiss Confederation Government); (2) "Commissioning of the second hydrounit of Kambarata-2"<sup>87</sup> (Zhalal-Abad province, EDB); (3) "Toktogul HPP rehabilitation" (France III Switzerland Consortium) – the 4<sup>th</sup>

<sup>85</sup> cycle of projects implemented by the Kyrgyz Government since 2013. During this period, 120,794 economic entities received loans for a total amount of 51.73 billion KGS

<sup>86</sup> Global Agriculture and Food Security Program

<sup>87</sup> ZKR No.120 of 16.12.2022 ratifies an additional agreement No.2 to the Agreement on granting an investment loan from the Eurasian Fund for Stabilization and Development to finance the "Commissioning of the second hydro unit of Kambarata-2 HPP" project between the KR and EDB of 28.02.2017, signed on 15.04.2022



hydrounit at a nominal capacity of 350 MW was commissioned. An agreement was signed on replacement of all hydrounits.

In Naryn province, the project "Construction and operation of 100-MW Kulanak HPP" was launched. The project will include a reservoir and a 27-m dam. The construction will last 4 years.

An Organization Committee was formed to study offers of potential investors for construction, commissioning and operation of the **Kambarata-1 HPP**<sup>88</sup> on the Naryn River. The project envisages construction of a 256-meter-high dam, a 1,860-MW HPP to generate 5.6 billion kWh of power, and a 5.4-billion m<sup>3</sup> reservoir. As of 06.01.2023, the Ministers of Energy of Kazakhstan, Kyrgyzstan and Uzbekistan signed a roadmap to implement the project (Bishkek).

The "Electric Power Plants" JSC and Kazakh Orient Trade Investment Company signed a Memorandum of understanding and cooperation on the project "Construction and operation of Kazarman reservoir cascade on the Naryn River", consisting of 4 HPPs (Alabuga HPP, Karabulun-1 HPP, Karabulun-2 HPP, Toguztorouz HPP) with a total capacity of 1,160 MW. The estimated cost is over \$1 billion, and the implementation period is 5-6 years.

For the construction of power transmission lines under the CASA-1000 project<sup>89</sup>, access roads were built to the construction sites of 1,217 (97.9%) poles, ditches were dug for poles, 1,202 (96.7%) poles were reinforced and concreted, 969 (78%) poles were installed, and 83.9 km (18.4%) of electrical wiring was installed as of 24.12.2022. A 500-kV substation is under construction at the Datka substation in Zhalal-Abad province.

### Alternative energy

In 2022, 43 companies received 61 certificates of RES facilities for a total planned capacity of 1,059.3 MW (small hydro – 411.3 MW; solar – 298 MW; wind – 50 MW; geothermal – 300 MW)<sup>90</sup>. These companies will be included in the public Register of RES facilities.

The project "Renewable Energy Development in Kyrgyzstan" is at the preparation stage; it will focus on the development and reconstruction of small hydro-power, preparation of a pilot solar project, including grid reinforcement, and technical assistance for preparation of the Kambarata-1 project.

**Small hydropower.** Construction of the small 25-MW "Bala-Saruu"<sup>91</sup> HPP (Kirov reservoir, Talas province)

was started for an average generation of 92 million kWh.

Kyrgyzstan signed: (1) an agreement with the Hungarian-Kyrgyz Development Fund and the Hungarian company "A-Hid" on the design of small hydro in Kyrgyzstan; (2) a contract with the Consortium of companies – Russian "IGHolding Rus" JSC, Kyrgyz CJSC Inkraft and Canadian i-Energy Power Expert Consulting Inc. on the design of Chon-Kemin-1 HPP on the Chon-Kemin River in Chu province; (3) a Memorandum of understanding and a roadmap for implementation of small Karakul project on the Kara-Suu River in Zhalal-Abad province with Japanese Muroo Systems Co. The construction cost is estimated at US \$25 million, a design capacity at 18 MW and an average annual generation at 110 million kWh.

**Nuclear energy.** By the Resolution No.513-p of 27.09.2022 a draft roadmap was approved on the development of cooperation between Kyrgyzstan and Russia regarding the feasibility of construction of a low-capacity nuclear power plant on the territory of the Republic.

### Environment and Climate Change

On the initiative<sup>92</sup> of Kyrgyzstan, the 77<sup>th</sup> session of the UNGA adopted a resolution "Sustainable mountain development"<sup>93</sup> (December 14, New York, USA) declaring 2023-2027 as the "Five-year action plan for the development of mountain regions". The five-year action plan opens the opportunities to attract grants and investments in the economies of mountain countries, including Kyrgyzstan; will promote the development of a green economy and technologies, science and education for sustainable mountain development, biodiversity conservation and disaster prevention in mountain regions.

**Public administration reforms.** "Kyrgyzgeologiya", "Central Laboratory" and the Interindustry Training Center under the State Agency for Geology and Subsoil Use of the Ministry of Energy and Industry<sup>94</sup> were transferred to the Ministry of Natural Resources, Ecology and Technical Supervision/MNRETS (PKM KR No.231 of 26.04.2022).

**Latest developments in legislation:** (1) UP KR No.17 of 31.01.2022 "On declaring 2022 the Year of Mountain Ecosystem Protection and Climate Resilience". A roadmap was approved (PKM KR No.95-p of 01.03.2022), within the framework of which the national campaigns "Zhashyl Muras" (Green Heritage) were conducted (article 1), "Zhashyl Muras" Internet platform is developed (article 15); (2) UP KR No.131 of 26.04.2022 "On

<sup>88</sup> Resolution of KM KR No.304-p of 31.05.2022

<sup>89</sup> CASA-1000 project aims to connect the energy systems of Central and South Asia – Kyrgyzstan, Tajikistan, Afghanistan and Pakistan and to develop mechanisms for selling electricity in line with international standards

<sup>90</sup> in 2021, 20 companies received 48 certificates of RES facilities for a total planned capacity of 643.55 MW (small HPPs – 333.45 MW; solar stations – 300 MW; floating photovoltaic power plants – 0.1 MW; wind stations – 10 MW)

<sup>91</sup> Resolution of the Chairman of KM KR No. 173-p of 06.04.2022

<sup>92</sup> address by the President of Kyrgyzstan at the General Debate of the 76<sup>th</sup> session of the UNGA on September 21, 2021

<sup>93</sup> "Resolutions and Decisions adopted at the 77<sup>th</sup> session of the UNGA", vol. 1, pp. 747-755

<sup>94</sup> Ministry of Energy of the Kyrgyz Republic, UP KR No.425 of 12.10.21, PKM KR No.242 of 06.11. 2021

urgent measures to preserve the ecology of Lake Issyk-Kul", which also entrusts the Kyrgyz Cabinet of Ministers with development and approval of the comprehensive state program "Protection of Lake Issyk-Kul and socio-economic development of the Issyk-Kul biosphere zone for 2023-2026"; (3) UP KR No.305 of 06.09.2022 "On National Clean-up Day and the action plan for the creation of an effective infrastructure for household waste management for 2023-2025" aimed at implementing policies on environmental protection, rational use of natural resources, and improvement of sanitary and environmental conditions.

**Projects.** Kick-off workshops and meetings were held within the framework of the initiated projects: (1) "Climate change and resilience in Central Asia" (EU/UNDP) aimed at supporting climate-resilient development in Fergana Valley, the border areas of Kyrgyzstan, Tajikistan and Uzbekistan (May 31); (2) "Climate services and diversification of climate sensitive livelihoods to empower food insecure and vulnerable communities in Kyrgyzstan" (GCF) (September 8); (3) "Strengthening resilience and adaptive capacity of natural ecosystems and local communities" implemented with the support of the Critical Ecosystems Partnership Fund (CEPF) in Zhalal-Abad province, Chychkan gorge (March 22-24; July 23, December 9-10, Toktogul).

The Gosstroy and French company EGIS signed a contract to finalize the feasibility study and to develop design and estimate documentation for a project aimed at improving the infrastructure of Cholpon-Ata and nearby villages with the ADB support.

For UNDP projects, see "United Nations and its Specialized Agencies".

**International cooperation.** The MNRETS: (1) signed Memorandums of understanding and cooperation on environmental protection with the Ministry of Ecology and Natural Resources of Azerbaijan (October 11) and the UAE Ministry of Climate Change and Environment (October 31); (2) held meetings with the Head of the EU Delegation and Ambassador Extraordinary and Plenipotentiary of France to the Kyrgyz Republic (February 2); Head of the OSCE (February 4); Director of the UNEP European Office for Biodiversity Conservation in High Mountain Ecosystem in the KR-UNEP format (February 9); Swiss delegation (March 10); WB officials (March 18).

Draft Memorandum of understanding between the MNRETS and the Ministry of Environment, Water and Agriculture of Saudi Arabia was approved by the Decree of the Cabinet of Ministers No. 642-p of 23.11.2022.

**Events.** Kyrgyzstan hosted (1) the regional conference "Central Asian dialogue on readiness for climate finance through partnership engagement" (April 12-13, Bishkek); (2) a meeting on Environmental Performance Review III (EPR) (May 16, Bishkek).

As part of the environmental campaign "National Clean-up Day", a nationwide clean-up day was organized throughout the country (October 8).

The Kyrgyz delegation participated in the: (1) 3<sup>rd</sup> meeting of the heads of the SCO environmental ministries and agencies (May 24, Tashkent, Uzbekistan); (2) COP27, where Kyrgyzstan, together with Iceland and Chile, co-founded the high-level international initiative "Group of Friends of Cryosphere" to protect and preserve glaciers of mountainous countries, Antarctica and the Arctic from negative climate impacts (November 7-18, Sharm el Sheikh, Egypt); (3) 2<sup>nd</sup> Central Asian forum "Cooperation to foster low emissions and climate resilient development in Central Asia" (November 24-25, Almaty, Kazakhstan).

## SDG in Kyrgyzstan

According to the National Development Strategy of the Kyrgyz Republic for 2018-2040<sup>95</sup>, the country will strive to achieve the adopted SDGs by 2030. Kyrgyzstan was ranked 48 among 163 countries in the [annual sustainable development rating](#).

### Kyrgyz Republic

Eastern Europe and Central Asia



OVERVIEW INDICATORS



#### SDG Dashboards and Trends



The "Statistics of Sustainable Development Goals in the Kyrgyz Republic" and "Sustainable Development Goals and Gender in the Kyrgyz Republic" were published.

## Emergencies

The "Concept for comprehensive protection of the population and territories of the Kyrgyz Republic from emergencies for 2018-2030"<sup>96</sup>, adopted to accomplish the [Sendai Framework Program](#), is under implementation. A Mid-term Review of the implementation of the Sendai Framework for Disaster Risk Reduction

<sup>95</sup> Approved by the Presidential Decree No.221 on 31.10.2018

<sup>96</sup> Approved by PP KR No.58 on 29.01.2018

2015-2030 in the Kyrgyz Republic was prepared and discussed under the Kyrgyz MES with technical and financial support of WFP, UNISDR and UNDP in the Kyrgyz Republic (October 13).

**Latest developments in legislation.** (1) Resolution of the Cabinet of Ministers No.70-p of 17.02.2022 to strengthen the capacities of the Kyrgyz MES; (2) Law of KR No.116 of 07.12.2022 "On amendments to the Law of the Kyrgyz Republic "On granting privileges in the repayment of concessional long-term loans to people living in settlements in high mountainous and remote areas of the Kyrgyz Republic, affected by natural disasters, who received loans in the period from 2002 onwards".

**Natural disasters.** The glacier collapse occurred in the mountains of Issyk-Kul province on the Zhuuku strait at the Terskey Ala-Too ridge. The estimated melted glacial mass is more than 2 million m<sup>3</sup> (July 8).

**MAP-SCHEME OF THE ZHUUKU STRAIT, WHERE THE GLACIER COLLAPSED**



Source: AKIpress [https://www.facebook.com/akipress/photos/5275476659195320/?paipv=0&eav=AfYxAT3SNV98Y7z92y0j-MaDL4MqwochHh2ar9eLWHbg8MBJiw1OgJDs5uO8XIRa\\_CU&\\_rdr](https://www.facebook.com/akipress/photos/5275476659195320/?paipv=0&eav=AfYxAT3SNV98Y7z92y0j-MaDL4MqwochHh2ar9eLWHbg8MBJiw1OgJDs5uO8XIRa_CU&_rdr)

In 2022, 59 emergencies were registered, including 23 mudflows and 2 floods. Due to heavy rains in spring and summer, mudflows flooded houses, and crops and roadbeds were destroyed in Naryn, Batkent, Talas, Issyk-Kul, Osh, and Zhalal-Abad provinces.

**Preventive measures.** To prevent emergencies related to groundwater level rise and reduce disaster risks, ditch systems and mudflow channels are cleaned, and dams and banks are strengthened.

**Projects.** Under the projects: (1) "Enhancing resilience in Kyrgyzstan"/ERIK (WB), 2 drones DJI Matrice 300 RTK were bought and trainings were held on their use for monitoring of natural hazards (March 4-6, Bishkek)

and on modeling the movement of rockslides, landslides and mudflows using Flow-R software (June 1-6, Osh); support was provided for implementation of a distance learning system at the Center for Training and Retraining of Civil Protection Specialists under the Kyrgyz MES; a web portal of the Unified system for integrated monitoring and forecasting of emergency situations ([www.ucmfs.mes.kg](http://www.ucmfs.mes.kg)) was developed to provide the Kyrgyz population with access to forecast information on potential dangerous natural processes and phenomena in the country; (2) "Landslide risk management in the Kyrgyz Republic" (\$39 million, ABD, implementation term – 6 years), the draft law was approved on ratification of loan and grant agreements with the ADB; (3) "Institutionalization of the methodology for damage and loss assessment in agriculture of the Kyrgyz Republic" (FAO), the starting national technical workshop (February 11, Bishkek) and simulation exercises to test the methodology for assessing damage and losses associated with agricultural disasters (22-26 May, pilot sites) were held.

**International cooperation.** The draft Agreement was approved between the Cabinet of Ministers of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on cooperation on emergencies prevention and elimination (RKM No.346-p of 23.06.2022).

The MES of KR and RK conducted an online joint training on control alerting of on-duty services in response to emergencies on the example of cross-border wildfires for the CICA member states. Representatives of emergency services from Azerbaijan, Bangladesh, Iran, China, Russia, Tajikistan, and Thailand attended the event.

The evaluation mission<sup>97</sup> of the UN "CADRI Initiative (CADRI)" international experts conducted a diagnosis of disaster risk management capacity in eight priority sectors of the Kyrgyz Republic: agriculture, environment, health, social protection, water and sanitation, education, transportation, telecommunications and tourism (February 21-March 3). A report was prepared based on the results of the evaluation. Recommendation on capacity diagnosis will inform the review and update of the national strategic vision for DRR, the 2023-2027 strategic cooperation framework document with the UN, and will be integrated into sector plans, national and local level strategic documents for DRR and CCA.

**Events.** The month dedicated to the "Disaster Risk Reduction Day" (September 6-October 5); safety lesson for schoolchildren (June); roundtable "Glaciers of the mountain regions of Central Asia in a changing climate" (November 25, Bishkek) were held.

The Kyrgyz delegation participated in the: (1) regional forum of emergency ministers of the Central Asia republics. The participants discussed how to coordinate actions for strengthening regional cooperation on DRR, combating climate change, and implemen-

<sup>97</sup> evaluation was conducted by a multidisciplinary team of international experts from UNICEF, UNDP, UNISDR, FAO, the CADRI Secretariat and a national team comprising representatives of MES, the National Platform Secretariat and the UN Country Team in the Kyrgyz Republic, including FAO, OCHA, UNDP, UNICEF, UNFPA, WFP, WHO, UNESCO and IOM

tation of the Sendai Program and the Strategy for development of DRR cooperation in CA for 2022-2030 and the matters related to formation of early warning systems and emergency information sharing (October 4-6, Dushanbe, Tajikistan); (2) 8<sup>th</sup> Summit of emergency ministers of the OTS member states (December 21, Ankara, Turkey).

The Center for Monitoring and Forecasting of Emergency Situations conducted the training for officers of MES of the Kyrgyz Republic on the use of GIS technologies and mapping in emergencies jointly with the British non-governmental organization MapAction (May 23-27).

The 19<sup>th</sup> edition of the "Monitoring and forecasting of hazardous processes and phenomena in the Kyrgyz Republic" was published.

## Foreign Policy and International Cooperation

**Working and official visits.** In 2022, the Kyrgyz President paid state and working visits to China (February), Azerbaijan (April), Russia (May, December), UAE (May, October), Uzbekistan (September, November), Turkey (September), Kazakhstan (October), Armenia (November), Qatar (December).

The President **held meetings** with the: *Presidents* of Kazakhstan (May), Tajikistan (July), Uzbekistan (September), Azerbaijan (October); *Prime Ministers* of Kazakhstan (April), Uzbekistan (September); *Vice Premier* of the State Council of the PRC (December); *Ministers* of the Eurasian Economic Commission for Integration and Macroeconomics (February), Foreign Affairs of the Kingdom of Saudi Arabia (March), Investment and Foreign Trade of Uzbekistan (April), Foreign Economic Relations and Foreign Affairs of Hungary (May), Economy of UAE (June), Foreign Affairs of PRC (August), Foreign Affairs of Uzbekistan (November), Internal Affairs of Turkey (November); *Ambassadors* of Germany (March), USA (December); UN Deputy Secretary-General (June); ADB *Vice President* (April); WB *Managing Director* of Operations (September); *Directors General* of the Asia Operations Department of the Saudi Fund for Development (February); *Secretaries-General* of the SCO (May), CSTO (September), and OTS (November).

## Most significant events in the Kyrgyz foreign policy in 2022

The foreign policy of the Kyrgyz Republic is focused on active cooperation with neighboring states on: delimitation and demarcation of the state border; creation of indivisible security space and rebuilding of trust in the CA region; achievement of environmental security; adaptation to climate change and cooperation with international climate funds to initiate joint projects for preserving glaciers, forests and biodiversity; better preparedness for natural disasters; ensuring of access to clean drinking water; construction of RES facilities, primarily hydropower; promotion of water-energy diplomacy, etc.

## Development of alliances and strategic partnerships.

The Kyrgyz Republic strengthens and deepens cooperation with the CA states. Kyrgyzstan chaired the **4<sup>th</sup> consultative meeting of the Heads of State of CA**, where: (1) a joint statement was adopted; (2) a Treaty of Friendship, Good-Neighborliness and Cooperation for the Development of Central Asia in the 21<sup>st</sup> Century was signed. Among other things, it is said that: "...the Parties unite and coordinate efforts in environmental restoration in the Aral Sea basin and Aral Sea region, cooperate on development and implementation of international and regional programs in this field... Shall take necessary efforts to improve the legal and institutional framework of the International Fund for Saving the Aral Sea, taking into account the interests of all Central Asian states" (Article 19); (3) a decision of the Heads of the IFAS Founder States was signed to extend E. Rakhmon's term as the IFAS President; (4) the Concept for cooperation of the CA states in multilateral format, the "Green Agenda for CA" and the roadmap for regional cooperation development for 2022-2024 were approved (July 21, Cholpon-Ata).

The Kyrgyz delegation participated in the anniversary meeting of the heads of CSTO member states (May 16); international conference "Afghanistan: security and economic development" (July 25-26, Tashkent, Uzbekistan); summit "Central Asia-Russia" (October 14, Astana, Kazakhstan); extraordinary session of the CSTO Collective Security Council (October 28, online).

Within the framework of **CIS**, Kyrgyzstan participated in the meetings of: (1) the Council of Heads of State, following which the Chairmanship will be passed to Kyrgyzstan in 2023 (October 14, Astana, Kazakhstan); (2) the Council of Heads of Government (May 20, online; October 28, Astana, Kazakhstan); (3) the Council of CIS Foreign Ministers (May 13, Dushanbe, Tajikistan; October 12, Astana, Kazakhstan); (4) the CIS Economic Council (March 18, Moscow, Russia; June 10, Nur-Sultan, Kazakhstan; September 23, Moscow, Russia; December 2, online), as well as in the informal summit of the Heads of State (December 26, Saint Petersburg, Russia).

Within the framework of **SCO**, the President participated in a meeting of the Council of Heads of SCO member states (September 16, Samarkand, Uzbekistan). The Chairman of the Cabinet of Ministers participated in the 21<sup>st</sup> meeting of the Council of Heads of Government (Prime Ministers) of the SCO member states (November 1, online).

The Kyrgyz Republic, **as the charring country of the EAEU in 2022**, hosted the 1<sup>st</sup> Eurasian economic forum (May 26, Bishkek), a meeting of the Supreme Eurasian Economic Council with the participation of the heads of EAEU state (May 27, December 9, Bishkek), CIS and EAEU Youth Forum (August 25-26, Cholpon-Ata), and a meeting of the Eurasian Intergovernmental Council (August 25-26, Cholpon-Ata). Moreover, NGOs held an international forum "The Bishkek Initiative for closing biolaboratories in the EAEU countries, funded by non-aligned countries" (June 9, Bishkek).

**Promotion of the national interests and reinforcement of the country's image.** The Kyrgyz Republic is actively engaged with the UN, EU, OSCE, OIC, and ECO.

On the initiative of Kyrgyzstan, the participants of the 76<sup>th</sup> session of the UNGA unanimously adopted a Resolution<sup>98</sup> declaring 2022 the International Year of Mountain Development.

The Permanent Mission of the Kyrgyz Republic to the UN made a presentation of the concept of the "Five-year action plan for development of mountain regions" (May 24, New York, USA)<sup>99</sup>. Ahead of the 77<sup>th</sup> session of the UNGA, the Kyrgyz delegation organized a high-level meeting on sustainable mountain development (September 19, New York, USA). The Resolu-

tion on "Sustainable mountain development" declaring 2023-2027 as the "Five-year action plan for development of mountain regions" was adopted at the 77<sup>th</sup> session of the UNGA (December 14, New York, USA).

The Minister of Foreign Affairs of the Kyrgyz Republic participated in the ministerial meeting in the C5+1 format on the sidelines of the 77<sup>th</sup> session (September 22, New York, USA), the annual consultative meeting of foreign ministers of the OIC member states (September 22), the meeting of foreign ministers of landlocked developing countries, where in particular he emphasized a need to promote the principles of green economy and the RES projects, including hydropower (September 22).



For the first time, Kyrgyzstan was elected to the Steering Committee of the Mountain Partnership at the 6<sup>th</sup> Global Meeting of Mountain Partnership (September 26-29, Aspen, USA).

The Kyrgyz President took part in the: (1) summit "Central Asian States-China" (January 25, online); (2) 1<sup>st</sup> summit "India-Central Asia" (January 27, online); (3) 4<sup>th</sup> Asia-Pacific water summit "Water for sustainable development – new generation and best practices" (April 23, online); (4) 6<sup>th</sup> CICA Summit (October 12-13, Astana, Kazakhstan); (5) 1<sup>st</sup> EU-Central Asian leaders' meeting (October 27, Astana, Kazakhstan); (6) meeting of the 9<sup>th</sup> Summit of the Heads of State of OTS (November 10-11, Samarkand Uzbekistan).

#### Sources

Official sites of:

President of the Kyrgyz Republic (<https://www.president.kg/>);  
Parliament (<http://kenesh.kg/>);

Ministry of Foreign Affairs (<https://mfa.gov.kg/ru/>);  
Ministry of Justice (<http://cbd.minjust.gov.kg/>);  
Ministry of Agriculture (<https://agro.gov.kg/language/ru/main/>);  
Ministry of Finance (<https://www.minfin.kg/index.php>);  
Ministry of Energy (<https://minenergo.gov.kg/>);  
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Ministry of Emergency Situations (<https://mchs.gov.kg/>);  
National Energy Holding (<http://energo.gov.kg/>);  
Water Resources Service (<https://www.water.gov.kg/index.php?lang=ru>);  
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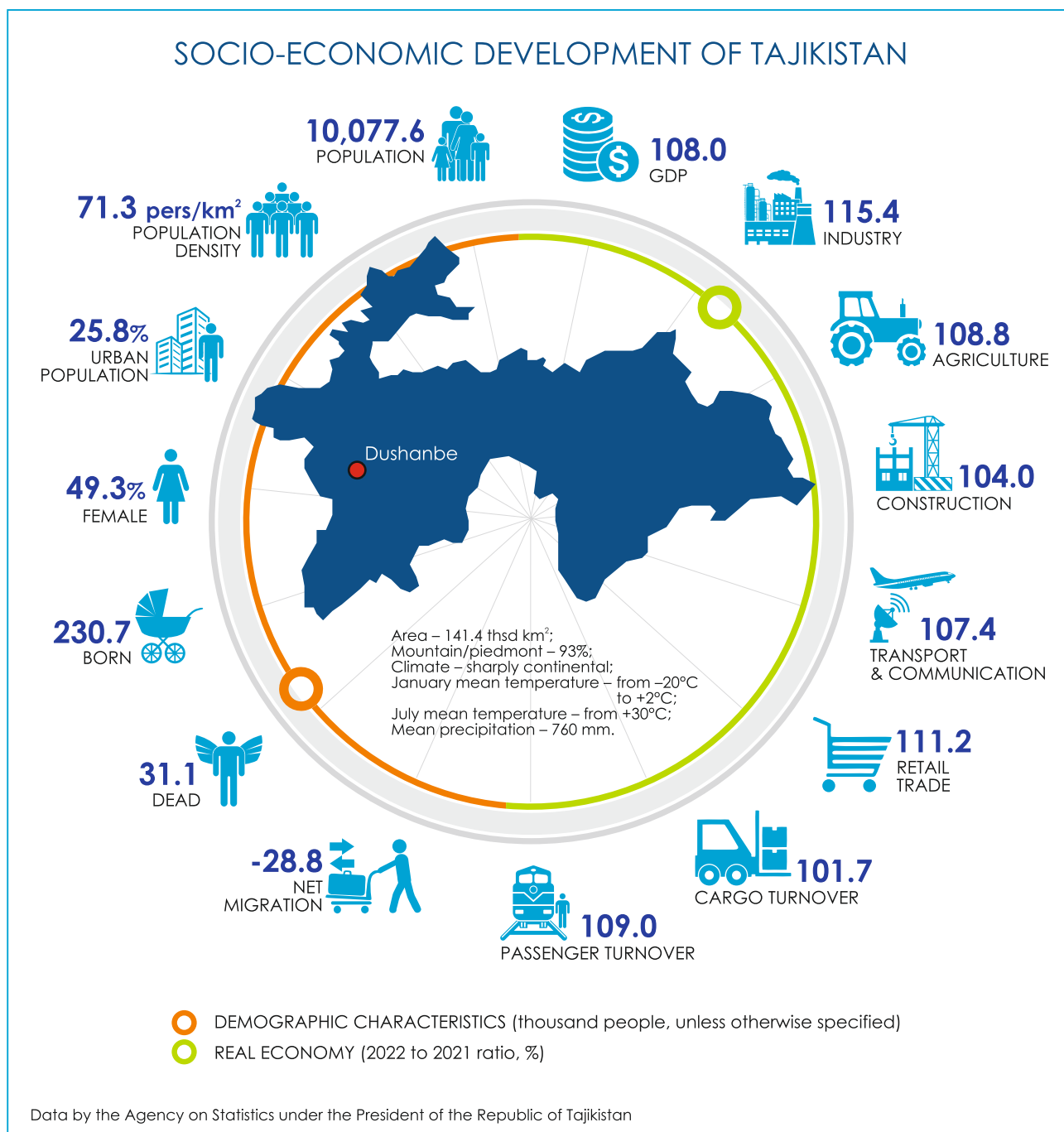
Information agencies and sites:

<https://knews.kg>  
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<https://www.akchabar.kg>  
<https://www.facebook.com/mchs.gov.kg>

<sup>98</sup> 52<sup>nd</sup> plenary meeting, December 16, 2021, p.6

<sup>99</sup> Within five years, the Kyrgyz Republic intends to promote a wide range of initiatives in the field of environmental protection, disaster management, health care development, sustainable access of mountain communities to electricity, education, science, and culture in mountain countries

## 5.3. Tajikistan



### Water Sector

**Water resources.** Tajikistan has got water resources from glaciers, rivers, lakes, reservoirs and groundwater.

There are 14,509 glaciers with the total glaciation area of 11,146 km<sup>2</sup> (approx. 8% of the country's area) and the total glacial volume of about 845 km<sup>3</sup>. 947 rivers stretching to more than 28,500 km flow across the country.

The average annual river runoff is 64 km<sup>3</sup>/year (including 80% of the Amu Darya River and 1% of the Syr Darya River) or 55.4% of the average long-term annual surface runoff in the Aral Sea Basin.

Tajikistan possesses about 1,300 lakes covering 705 km<sup>2</sup>. The lakes contain over 46.3 km<sup>3</sup> of water, including 20 km<sup>3</sup> of freshwater. There are 11 operational reservoirs, with the total water surface area of 664 km<sup>2</sup> and the total capacity of 15,344 km<sup>3</sup>, which is equivalent to 13% of the average long-term annual runoff in the Aral Sea Basin. The potential groundwater stock is 18.7 m<sup>3</sup>/year, while usable groundwater resources are estimated at 2.8 km<sup>3</sup>/year.

The main water consumers in Tajikistan are irrigated agriculture, which accounts for 85% of the total water use, household and drinking water supply – 5%, industry – 5%, fishery – 2%, and other sectors – 3%.

**Latest developments in legislation.** The “2022-2027 State Program<sup>100</sup> on development of new irrigated land and reclamation of land withdrawn from agricultural production” and the Action Plan for its implementation were approved (PP RT No.90 of 01.03.2022).

**New appointments.** B.T.Zukhuzoda was appointed Deputy Director of the Agency for Land Reclamation and Irrigation under the Government of Tajikistan (UP No.171 of 11.04.2022); M.B.Rakhmatzoda – Head of the Center for implementation of the Irrigation of the Danghara Valley Project (UP No.170 of 11.04.2022).

**2016-2025 Water Sector Reformation Program<sup>101</sup> and projects.** According to MEWR<sup>102</sup>, since 2016, 2,693 million TJS have been used by the Program, including 597 million TJS in 2022. In 2022, (1) a new Water Code and amended laws “On drinking water and drinking water supply<sup>103</sup> and “On Water User Associations<sup>104</sup>, as well as 17 by-laws regulating the water sector **were adopted**; the National Water Strategy of the Republic of Tajikistan up to 2030, the basin plans for water

resource management in the Syr Darya, Zerafshan, Panj, Kafirnigan, Isfara and Isfana River basins, and the Programs for rehabilitation of industrial water supply systems and their equipment with water meters **were developed**; the large-scale work **was undertaken** to assess conditions of the water supply and sanitation sector for development of the 2030 State Program for water supply and sanitation; (2) basin zones and 5 basin organizations under the MEWR **were set**; 5 basin councils for the Syr Darya, Zeravshan, Panj, Vakhsh, and Kafirnigan River basins **were established**; the work was initiated for the improvement of management structure in the water supply and sanitation sector.

The “Procedure and method for drafting water balances” was approved<sup>105</sup> (Resolution of MEWR No.45 of 01.12.2022). The “State program on water supply and sanitation until 2030” and the “Concept for the support of water education in Tajikistan by 2030<sup>106</sup>” were developed.

#### Projects implemented in the water sector under the Reformation Program, million \$

No.	Name	Quantity	Total cost	Funds used in 2022	Funds used since the project started	Remaining funds
1	Ongoing projects	26	460	58	146	314
<i>including public investment projects:</i>						
2	Projects on drinking water supply and sanitation	7	243	28	62	181
3	Projects on irrigation and land reclamation	4	165	22	52	113
<i>including technical assistance projects:</i>						
4	Other projects on drinking water supply, irrigation, water quality and bank reinforcement	15	52	7	32	20

Source: Information of MEWR

In the land reclamation and irrigation (+bank reinforcement) sphere, 4 projects are currently underway. The total cost is \$165 million, of which about 80% is allocated for infrastructure rehabilitation and construction. In 2022, \$22 million were used.

The following projects were continued: (1) “National water resource management in Tajikistan”/NWRM<sup>107</sup> (SDC, CHF 6.4 million, 2018-2023); (2) “Water resource management in the Panj River basin<sup>108</sup>” (ADB) to in-

crease agricultural production and food security through improved water resources management; (3) “USAID regional water and vulnerable environment activity” (2020-2025) aimed at strengthening water cooperation among the CA countries to enhance stability, economic prosperity and sustainable ecosystems.

To support MEWR in the Reformation Program, the project “Integrated rural development (IRD)/“To-

<sup>100</sup> Program implementation coordinator – Agency for Land Reclamation and Irrigation under the Government of RT

<sup>101</sup> Approved by PP RT No.791 of 30.12.2015

<sup>102</sup> 16<sup>th</sup> meeting of the Coordinating Council of the National Water Policy Dialogue on IWRM in Tajikistan, February 15, 2023. <https://unece.org/environmental-policy/events/16th-meeting-steering-committee-national-policy-dialogue-iwr-republic>

<sup>103</sup> as amended by ZRT No.1483 of 02.01.2018

<sup>104</sup> ZRT No.1668 of 02.01.2020

<sup>105</sup> developed with the support of UNECE in line with Article 34 (part 3), Water Code of RT

<sup>106</sup> developed by MEWR with participation of other concerned ministries and agencies, with the support of USAID regional water and environment activity/WAVE

<sup>107</sup> implemented by a consortium of organizations: HELVETAS Swiss Intercooperation, Acted, GIZ

<sup>108</sup> see project documents on <https://www.adb.org/projects/47181-002/main>

wards rural inclusive growth and economic resilience (TRIGGER)<sup>109</sup> (BMZ, EU, and GIZ, 2019-2024) concluded a cooperation agreement with UNDP<sup>110</sup>. The partnership will focus on: (1) improvement of knowledge coordination and management in the water sector among all stakeholders; (2) awareness raising on the reform process and building of ownership; (3) engagement of personnel from MEWR in global reform developments; (4) improvement and development of the legal framework of the reform; (5) promotion of IWRM and gender, planning, and risk management; (6) integration of policies related to water, climate, energy, food and biodiversity through a nexus system.

The Government of Tajikistan and ADB signed a \$30-million grant agreement to modernize the Yavan irrigation and drainage system in the lower basin of the Vakhsh River. The lower house of the Parliament ratified the agreement (April). The project will improve agricultural and water use productivity and empower women in land and water management.

The WB Board of Executive Directors approved the IDA grant of \$30 million for the project “Strengthening water and irrigation management”<sup>111</sup> aimed at (i) strengthening capacity for water resource planning and irrigation management in Tajikistan and (ii) improving performance of selected irrigation schemes in the Vakhsh and Zerafshan River basins.

For UNDP projects, see “United Nations and its Specialized Agencies”.

**Events.** The following events were organized: (1) 2<sup>nd</sup> International High-level Conference on the International Decade for Action “Water for Sustainable Development”, 2018-2028 (June 6-9, Dushanbe, Tajikistan), see “2022 Calendar of Events”; (2) First Geneva Water Dialogue and workshop on water and disaster risk reduction with participation of the Permanent Mission of Tajikistan to the UN (July 1, Switzerland); (3) 9<sup>th</sup> meeting of the National Commission on Irrigation and Drainage of the Republic of Tajikistan (December 8, Dushanbe).

The delegation of MEWR took part in the: 9<sup>th</sup> World Water Forum and meetings on the margins of the Forum (March 21-26, Dakar, Republic of Senegal); (2) 4<sup>th</sup> Asia-Pacific Water Summit (April 13-24, Kumamoto, Japan); (3) 2022 Petersburg International Economic Forum (June 16, Saint Petersburg); (4) High-level Symposium on Water and 3 roundtables “Synergies between SDG6 and SDG14 – an integrated vision of the whole hydrological cycle: strengthening cross-sectoral approaches to accelerate implementation of related targets, including financing and governance”, “Water and Sanitation Services bridging SDG6 and

SDG14” and “Existing successful and innovative partnerships to support the implementation of SDG6 and 14: challenges, opportunities and actions” under the UN Ocean Conference (June 27, Lisbon, Portugal); (5) World Water Week “Seeing the unseen: the value of water” (August 28, Stockholm, Sweden).

## Drinking Water Supply

**Projects.** In the water supply and sanitation sector, 7 projects worth of \$243 million are underway. \$28 million were used in 2022. This resulted in commissioning of: (1) new drinking water supply networks in Khujand city (project by “Sadaf” SUE, 2 million TJS), Gazantarak village in Sogd province (with the support of the Tajik Government), villages of Kabadiyan, Shakhri and Farkhor districts (“Tajikistan prosperity” project, 2018-2023, USAID, Aga Khan Foundation); (2) 1,000-m<sup>3</sup> tank for water supply in Buston city (tripartite between the SUE “Housing and Communal Services of RT”, EBRD and the “Rehabilitation of water supply systems in northern cities of Tajikistan” project).

The loan agreement was ratified between the Republic of Tajikistan and EBRD on the “Fayzabad Water and wastewater” project (Resolution of MNMO RT No.789 of 29.06.2022).

Agreements were signed (1) with EU to start allocating €29 million in grants, of which €14 million is earmarked for rural drinking water supply; (2) with EBRD for more than €8 million to restore key water supply and sewerage infrastructure in Kulyab city – more than 100,000 residents will have access to improved water supply and sanitation services, and water losses will be reduced to 35%. Grants were approved: (1) by the WB Board of Executive Directors for \$45 million to finance the “Water supply and sanitation” investment project in Khatlon province; (2) by ADB for additional financing of \$38 million to improve water supply and sewerage systems in Dushanbe city. It is expected that 125,000 people will get 24/7 piped water supply, and 500,000 people will benefit from improved sewerage.

EBRD and SECO will provide €4.4 million for modernization of water supply networks in Fayzabad district, Rasht Valley.

## Agriculture

**Agricultural production.** In 2022, the total agricultural output accounted for 49.2 billion TJS, which is 8% more than in 2021. Production of grain amounted to 1.6 million tons, potatoes – 1 million tons, and vegetables and fruits – 3.2 million tons.

<sup>109</sup> an integral part of the EU Rural Development Program II (RDP II) aimed at supporting agrarian reform, sustainable and efficient water use, increasing agricultural production in selected target areas and strengthening natural resource management, <https://www.youtube.com/watch?v=OKVr0uz791c>

<sup>110</sup> approved by PP RT No.791 of 30.12.2015

<sup>111</sup> for information on environmental and social aspects of the proposed project, please refer to <https://alri.tj/en/strengthening-water-and-irrigation-management-project-tajikistan>. Estimated implementation period is 2022-2027, <https://www.alri.tj/ru/proekt-ustojchivoj-irrigacii-v-tadzhikistane?spetal=Y>



**Agricultural export.** In 2022, Tajikistan exported 191.2 thousand tons of agricultural commodities (17.6 thousand tons less than in 2021) to 20 countries (92% – CIS countries, 8% – other countries) for \$54.3 million (\$17.6 million more than a year earlier). In particular, the country exported 76.6 thousand tons of vegetables, 54.5 thousand tons of fruits, and 52.4 thousand tons of dried fruits.

**Gross Domestic Product (GDP)** amounted to 115.7 billion TJS (over \$11.3 billion), which is 8% more than in 2021. The inflation rate was 4.2%, which is 3.8% less than in the last year.

**Latest developments in legislation.** The “2022-2027 State Program for development of new irrigated land and reclamation of land withdrawn from agricultural production” was approved (PP RT No.90 of 01.03.2022). The law was adopted “On state support to agro-industry of the Republic of Tajikistan” (No.1866 of 18.03.2022); it determined the institutional, legal and economic framework of state support to agro-industry and envisages regulation and sustainable management of the latter.

The rates of land and single agricultural tax were approved for 2022-2026 for the cadastral zones of the republic, including mountainous zones (PP RT No.206 of 27.04.2022).

**New appointments:** (1) S.G. Karimzoda was appointed Minister of Agriculture (UP RT No.322 of 26.01.2022); (2) M.B. Mirzozoda – First Deputy Minister (PP RT No.5 of 26.01.2022); (3) Dj. Nosirzoda – Deputy Minister (PP RT No.285 of 10.06.2022).

**Projects and international cooperation.** As part of the “Towards rural inclusive growth and economic resilience”/TRIGGER Project, aimed, inter alia, at increasing the added value of agricultural production in Tajikistan, a series of trainings for trainers was held to develop knowledge and skills of project partners, rural advisors and agronomists to raise farmers' awareness of climate change and integration of adaptation measures, especially in the Zerafshan and Rasht River valleys (March-April). Support was provided to the Tajik delegation for a study tour to South Korea (November 13-20).

As part of the Feed the Future program, the “Tajikistan agriculture and land governance activity” addresses the root causes of poverty, hunger and malnutrition through agricultural development and increased sustainability of rural communities in 12 districts of Khatlon province (Balkhi, Dusti, Zhayhun, Zhami, Khurasan, Kushoniyon, Nosiri Khusrav, Kubadiyan, Levakand, Shakhritus, Vakhsh and Yavan).

The WB approved an additional grant of \$50 million for the “Strengthening resilience of agriculture sector” project<sup>112</sup>, which will support the procurement and distribution of seeds, fertilizers and compact ma-

chines to vulnerable farmers, including women farmers.

Memorandum of cooperation was signed between the Ministry of Agriculture and: (1) the Ministry of Agriculture of Egypt (March); (2) the Irkutsk State Agrarian University named after A.A. Ezhevsky, Russian Federation (March).

For UNDP projects, IFAD and FAO activities in Kyrgyzstan see “United Nations and its Specialized Agencies”.

## Energy

**Energy production and export.** In 2022, the total electricity production in Tajikistan increased to 21.4 billion kWh, which is 775.7 million kWh (3.8%) more than in 2021. Electricity exports reached more than 2.5 billion kWh, which is 118.4 million kWh (5%) more than in 2021. In just eleven months, the country raised more than \$103 million, which is 10.2% more than in the same period of 2021 (about \$93.5 million).

**Public administration reforms.** The public entity “Mechanized Construction and Repair of Hydraulic Structures” was established at the Agency for Land Reclamation and Irrigation under the Government of Tajikistan (PP RT No.615 of 29.12.2022).

**Latest developments in legislation:** (1) electricity and heat tariffs were approved for different groups of consumers (PP RT No.449 of 31.08.2022)<sup>113</sup>; (2) state financial support was provided to the “Barki Tojik” OSHC by reducing the debt to the “Sangtuda-1 HPP” OJSC by 282.4 million TJS, which accumulated due to purchase of electricity (PP RT No.605 of 20.12.2022).

**New appointments:** M.Sh. Asozoda was appointed Chairman of the “Barki Tojik” OSHC (PP RT No.12 of 27.01.2022), A.A. Kurbonzoda – Deputy Chairman (PP RT No.13 of 27.01.2022); S.A. Kholmukhamadzoda (PP RT No.286 of 10.06.2022) and M.B. Safarzoda (PP RT No.287 of 10.06.2022) were appointed Deputy Ministers of Energy and Water Resources; T. Gafurzoda – Head of the State Service on Supervision of Hydraulic Structure Safety (PP RT No.345 of 25.06.2022).

**Projects and international cooperation.** As part of the “Project Vanch I: improving quality of life through reliable power supply” (Royal Norwegian Ministry of Foreign Affairs (RNMFA) in cooperation with Aga Khan Foundation and Pamir Energy, 2020-2022), the construction of the remaining 25 km of 110-kV transmission line was completed in Vanch-Darvaz district; now it connects the regional electricity grid of GBAO to the national grid of Tajikistan.

The WB is currently financing 25 projects in Tajikistan for a total of \$1.3 billion. An additional grant of \$80

<sup>112</sup> WB Board of Executive Directors approved \$58 million in grant financing from the IDA for the project for more resilient and sustainable agricultural sector

<sup>113</sup> as amended by PP RT No.593 of 01.12.2022

million was approved under an ongoing project on rehabilitation of electricity facilities.

EU also allocates €15 million to support the country's energy sector.

### Alternative Energy

In Tajikistan, the hydropower potential is estimated at 527 billion kWh per year. However, existing capacities allow generating only 18 billion kWh of electricity per year (less than 5% of the potential). At the same time,

the share of hydropower in the country's fuel and energy budget is more than 95%. About 300 small HPPs have been built in the country, and another 600 small HPPs can be built.

The gross potential of solar energy is estimated at 1,822,894 MW (4,790.6 million TFOE/year); the technical potential is 1,493.7 MW (3.92 million TFOE/year); the economically viable potential is 545.2 MW (1.49 million TFOE/year). Wind energy potential is 60,167 MW (163 TFOE/year). The efficiency of wind plants was 55% in July and 100% in January.

### Renewable energy of Tajikistan, million TFOE

Resources	Gross potential	Technical potential	Economic potential
Hydropower (total)	179.2	107.4	107.4
incl. small hydro	62.7	20.3	20.3
Solar	4,790.6	3.92	1.49
Biomass	4.25	4.25	1.12
Wind	16.3	10.12	5.06
Geothermal	0.04	0.04	0.04
TOTAL (excl. large hydropower)	5,020.595	38.63	27.95

Source: <https://www.asiaplustj.info/ru/news/tajikistan/economic/20220811/eabr-dast-37-mln-dlya-stroitelstva-11-solnechnih-stantsii-v-armenii>

In his address to the Parliament at the end of 2021, the President of Tajikistan stated the need for wider use of solar and wind energy. Accordingly, by Presidential Decree No.432 of 19.08.2022 the draft Agreement between the RT and EU on financing the "Sustainable energy support program in Tajikistan" for €15 million was approved.

The delegation of Tajikistan presented information on the: (1) country's potential for generating environmentally clean energy and contribution to the reduction of harmful emissions by expanding energy ties with the countries in the region that use conventional energy during the ministerial panel session "Building a strong foundation for a resilient and sustainable energy and water services sector" (May 9, Abu Dhabi, UAE); (2) relevance of global transition to clean and sustainable energy at the "Uzbekistan 2022" Energy Forum and a number of working meetings during the event (June 23-24, Tashkent); (3) development of a solar power project and other alternative energy projects during the 60<sup>th</sup> meeting of the CIS Energy Council (July 14, Nur-Sultan).

### Hydropower Construction and Modernization

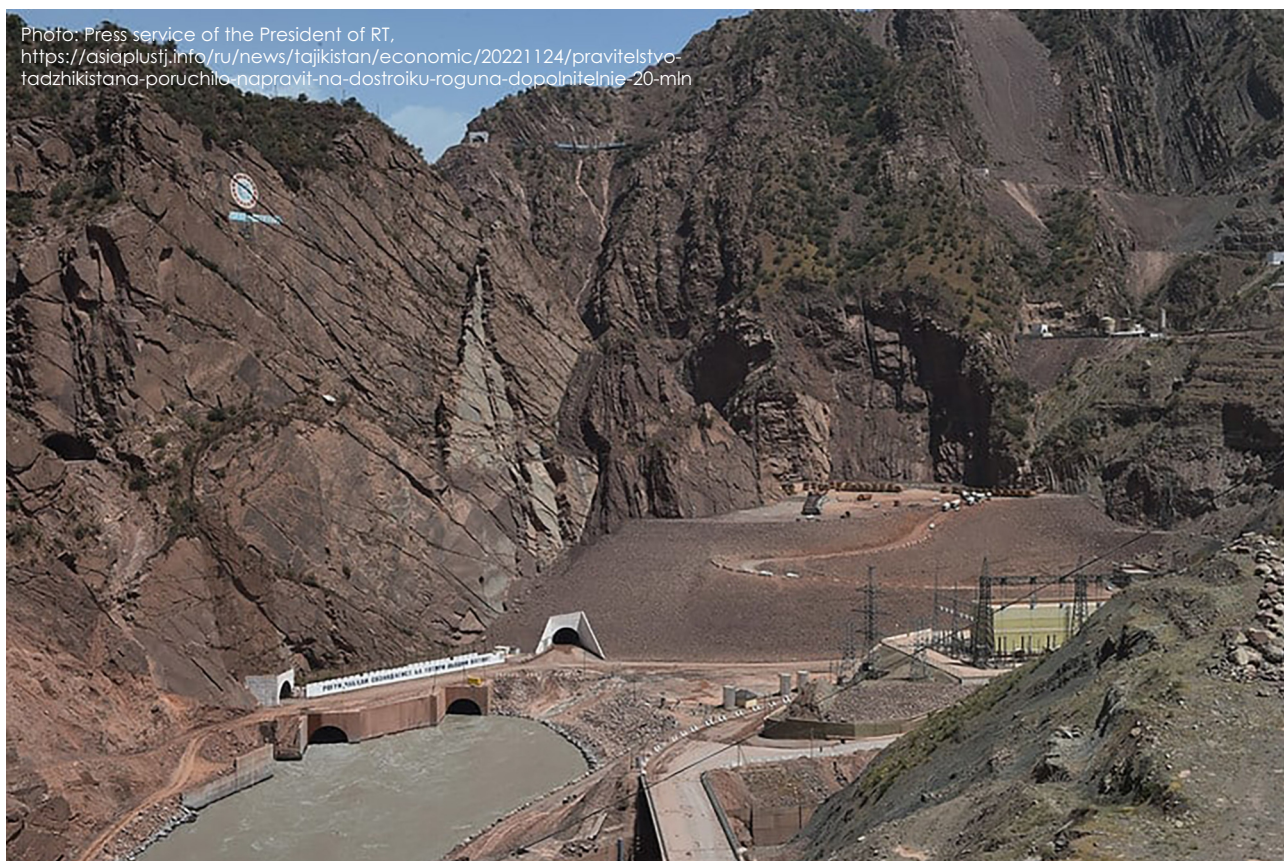
**Yavan HPP.** Tajikistan and Uzbekistan started construction of a 140-MW hydropower plant on the Zerafshan River. The plant will generate 700-800 million kWh per year (July).

**Rogun HPP**<sup>114</sup>. In 2022, 3.2 billion TJS were allocated from the state budget for construction work. The Ministry of Finance was instructed to replenish the authorized capital of the "Rogun HPP" OJSC at the expense of the Stabilization Fund for Economic Development by 200 million TJS (at about \$20 million).

The excavation work is further continued to prepare main basins and access routes to them, flatten the site and reinforcing mountains to a level of 1,552 m. Tunneling, reinforcement of water delivery, concreting, construction and mounting work are underway in the site of the main dam. Efforts on the dam body, including in head- and tail-water parts and in the core of the dam are continued.

Since the start of operation (November 2018, September 2019), two hydrounits generated more than 4.6 billion kWh of electricity.

<sup>114</sup> Rogun HPP will be the largest one in Central Asia, with the installed capacity of 3.6 thousand MW and the annual electricity output of 13 to 17 KWh, after the plant is fully commissioned



**Small Sebzor HPP<sup>115</sup>**. As part of bilateral cooperation between Germany and Tajikistan, an agreement was signed on additional financing of the construction for €17.4 million (May). Consequently, the total financing of the project will amount to €53 million. The HPP will generate up to 77.6 GWh of electricity per year and will improve access to sustainable, reliable and affordable electricity for the rural population in GBAO.

A contract was signed between the "TGEM" OJSC and Pamir Energy to construct 3 km of road, machine hall, and water intake, install 3 km of pipelines and deliver hydraulic equipment to the run-of-river plant (December).

**Sarband HPP<sup>116</sup>**. The 49-MW 3<sup>rd</sup> unit was commissioned, reconstruction of 220- and 110-kV power substations was completed, and work is underway on reconstruction of hydrounit 1 (March). After the complete reconstruction, the capacity of the HPP will increase to 270 MW, and the service at the plant and power supply will be significantly improved.

**Nurek HPP<sup>117</sup>**. In 2022, the first 375-MW unit was commissioned as part of the first phase of reconstruction.

It is expected that the new unit will generate 1,380 GWh per year, which is 135 GWh more than by previous unit (October). An agreement was signed with the WB to finance (\$65 million) the second phase of the "Nurek HPP rehabilitation" project; the allocated funds will be used, inter alia, for reconstruction of the remaining 6 units, overhaul of nodes of hydroturbine, etc. (May).

**Kairakkum HPP<sup>118</sup>**. Reconstruction of the HPP is 80% complete – three units were replaced, work was completed on the precise design and production of turbines, generators, transformers, auxiliary system, water gates of main turbine, construction part of the project for units 5 and 6; research and preparatory work was finished.

#### CASA-1000

Construction at the Sangtuda converter substation is over 98% complete, while general construction is 90% complete. The installation of major electrical components is underway, and all seven main converter transformers were assembled. The following interventions are in progress: (1) construction work to upgrade two substation sites along the CASA-1000 route

<sup>115</sup> 11-MW HPP is under construction in Roshtkala district of Gorno-Badakhshan Autonomous Region (GBAO)

<sup>116</sup> construction of the Sarband HPP (design capacity of 240 MW) was launched in 1956. It is one of the 6 operating HPPs on the Vakhsh River. Rehabilitation under the "Sarband HPP reconstruction" Project was started in 2016

<sup>117</sup> it is part of the Vakhsh cascade. Construction was started in 1961. Dam height -300 m, capacity - 3 thousand MW. It covers more than 50% of the total annual energy demand in Tajikistan. Reconstruction was started in 2019

<sup>118</sup> it is part of the Naryn-Syrdarya reservoir cascade. Construction was started in 1951, reconstruction – in 2020 (\$200 million, ADB, Investment Bank of Europe), after completion of which, by 2023, the capacity is expected to increase from 126 to 176 MW, power generation – up to 38%

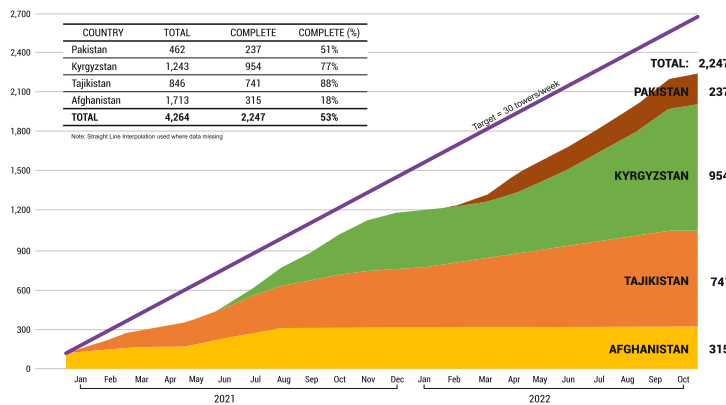
(Sughd-500 and Regar-500); (2) construction of transmission towers along the entire length of the CASA-1000 system in the country, while construction of the HVDC line from Sangtuda to the Afghan border is fully completed.

**CASA-1000 interactive map**



Source: <https://www.casa-1000.org/construction/>

**CASA-1000 Tower Construction by Country, (21 01 01 - 22 10 12)**



Source: <https://www.casa-1000.org/construction/>

**Climate Change, Glaciers and Environmental Protection**

At the initiative of Tajikistan, the 53<sup>rd</sup> plenary meeting of the 77<sup>th</sup> UNGA session unanimously adopted the resolution “International Year of Glaciers’ Preservation, 2025”<sup>119</sup> (December 14, New York, USA). The reso-

lution: (1) “...declares 2025 the International Year of Glaciers’ Preservation and to proclaim 21 March of each year the World Day for Glaciers, to be observed starting in 2025”; (2) “...invites Governments, intergovernmental and non-governmental organizations, major groups, other relevant stakeholders and donors to voluntarily contribute to the trust fund in support of activities for glaciers’ preservation, to be coordinated by the Secretary-General, in partnership with relevant agencies of the United Nations system...”; (3) “...welcomes the generous offer of the Government of Tajikistan to convene an international conference dedicated to glaciers’ preservation in Tajikistan in 2025...”.

**Latest developments in legislation.** The “Strategy for green economy development in the Republic of Tajikistan for 2023-2037” was approved with the aim to develop green economy, adapt to climate change, reduce greenhouse gas emissions, efficiently use natural resources, and mobilize capital and energy-saving technologies (PP RT No.482 of 30.09.2022).

**New appointments.** N.I.Nazarzoda was appointed Deputy Director of the Forestry Agency under the Government of Tajikistan (UP RT No.172 of 11.04.2022).

**Projects.** The “Technology-based adaptation to climate change in rural Tajikistan and Kyrgyzstan” (2019-2022)<sup>120</sup> project was completed: (1) the developed Geoportal provides access to up-to-date geographic information of Tajikistan and enables national partners and other stakeholders to explore and share it with each other; an Earth Observation Laboratory and unified metadata standards consistent with the system in place in Kyrgyzstan were established; (2) legal and regulatory framework was improved, and a working group was established to promote and develop the National Spatial Data Infrastructure initiative; (3) training was conducted in GIS, RS, digital data management, cloud analysis of climate data and satellite image processing, etc.; (4) a detailed site assessment was conducted, and local climate change adaptation plans were drafted for pilot districts of the project (Penjikent, Khovali, Muminabad, Vakhdat and Rudaki districts).

The eco-technological “ClimIT” (Switzerland) project was launched<sup>121</sup>; in the first phase, students will get technical skills in graphic design and will study modules on environment and waste management, while in the second phase, they will work together with experienced mentors to develop a package of communication materials and initiatives aimed at raising public awareness and reducing plastic use in Dushanbe. The following events were organized in Dushanbe: (1) kick-off seminar (June 3); (2) meeting with the Swiss Ambassador to Tajikistan (December 8); (3) courses on graphic design, digital marketing, and UX/UI design.

<sup>119</sup> Resolutions and decisions adopted by the General Assembly during its 77th session, vol. 1, pp. 540-543

<sup>120</sup> with the financial support from the German Ministry of Economic Cooperation and Development under the German Climate and Technology Initiative. Implemented by GIZ with the support of the Committee for Emergency Situations and Civil Defense of Tajikistan, Fazo Design and Research Institute (DRI) and the State Committee on Land Management and Geodesy

<sup>121</sup> by Ilmkhona Skills Accelerator, Youth Environmental Center together with Risha Solutions, with the financial support from the Government of Switzerland

The information on other projects is available on <http://tajnature.tj/ru/services/projects/>.

For UNDP projects, see "United Nations and its Specialized Agencies".

**International cooperation.** As part of the official visit of the President of Tajikistan to Uzbekistan, 15 documents on bilateral cooperation were signed, including the Memorandum on cooperation on environmental protection and rational environment management between the Committee for Environmental Protection under the Government of Tajikistan and the State Committee for Ecology of Uzbekistan<sup>122</sup>.

**Events.** As part of the Green Climate Action month (August 21-September 17), the following events were held: eco-podcast series "Listen Green", training "Joint mapping in Tajikistan" (August 23, Dushanbe), roundtable "Potential for development of cross-border cooperation in protected natural areas between the Republic of Tajikistan and the Republic of Uzbekistan" (August 31, Dushanbe), "Clean environment is a guarantee of human health" campaign (September 3, Dushanbe).



Source: Committee for Environmental Protection under the Government of Tajikistan

The following events were organized in Dushanbe: workshop on NDCs monitoring (July 26-29); national meeting and workshop on "Accelerating transition to circular economy in 2021-2024" (September 6-7); meeting of representatives of the Committee for Environmental Protection and UNECE on the results of the 3<sup>rd</sup> Environmental Performance Review and preparation of the 4<sup>th</sup> Review (November 22); roundtable on preparation of a new (third) edition of the Red Book of Tajikistan (November 29); roundtable "Out-

comes of the 27<sup>th</sup> Conference of the Parties, UN Model Convention on Climate Change" (December 6); roundtable on implementation of the "Strategy for green economy development in the Republic of Tajikistan for 2023-2037" with broad participation of representatives of ministries, agencies and development partners (December 14); consultation meeting "Supporting the implementation of Tajikistan's NDCs" (December 21); roundtable "Glaciers of Tajikistan is the Ice Heart of Asia" at the branch of the Lomonosov Moscow State University (December 29).

As part of the "Comprehensive State Program for environmental education in the Republic of Tajikistan for 2021-2025"<sup>123</sup>, the following events were organized: (1) mobile information tour in the tourist-resort complex "Temurmaliq Island" (August, Sogd province); (2) lessons, talks and meetings on environmental topics (September 28, Dushanbe); (3) meeting with students of the Tajik Technical University named after academician M.S. Osimi (November, Khujand); (4) training for representatives of the education sector, teachers of ecological and life sciences (November, Kanibadam); (5) winter ecological camp (November 30-December 3, Gulistan); (6) interdepartmental conference on the Program (December 15, Dushanbe); (7) training "Clean environment for children and adolescents" (December 22, Dushanbe).

The delegation of Tajikistan took part in the (1) high-level thematic debate "Moment of Nature" (July 19, New York, USA); (2) 9<sup>th</sup> Environment for Europe Ministerial Conference (October 5-7, Nicosia, Cyprus); (3) UN Climate Conference/COP 27 (November 7-18, Sharm el Sheikh, Egypt).

### SDG in Tajikistan

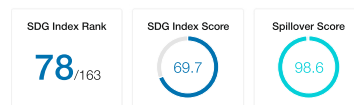
Tajikistan and the UN signed the "Sustainable Development Cooperation Framework for 2023-2026" (7 June, Dushanbe).

## Tajikistan

Eastern Europe and Central Asia



OVERVIEW INDICATORS



### SDG Dashboards and Trends



Source: <https://dashboards.sdgindex.org/profiles/tajikistan>

<sup>122</sup> Ministry of Natural Resources of the Republic of Uzbekistan (UP RUz No.UP-269 of 21.12.2022)

<sup>123</sup> Resolution of the Government of the Republic of Tajikistan No.116 of 3.04.2021

Tajikistan was ranked 78 among 163 countries in the annual sustainable development rating.

## Emergencies and Natural Disasters

**Latest developments in legislation.** The “Medium-term State Program for protection of population and territories from emergencies for 2023-2028” and 2023-2025 Action Plan for implementation of the Program were approved (PP RT No.630 of 29.12.2022). The key priorities of the Program include: (1) public awareness of DRR; (2) development of institutional and legal framework for this system; (3) attraction of investments from international organizations and the state budget to ensure earthquake-resistant construction; (4) training of the population and rescuers in responding to emergencies.

**Natural disasters.** In 2022, 697 emergencies were registered (359 in 2021), including 46 natural disasters (52 in 2021); the damage to the country's economy amounted to almost 53.3 million TJS. Heavy rains in RRS, GBAO, Sogd and Khatlon provinces resulted in mudflows that damaged houses, crops, livestock, and roadbeds.

**Preventive measures.** Hydraulic facilities were enforced to ensure accident-free operation in case of emergencies on the territory of the Kayrakkum reservoir (Tajik Sea) in Sogd province; mudflow protection structures and a flood control dam were rehabilitated in Ayni makhalla of Shurob Isfara rural jamoat. In Khatlon province, engineering and technical measures were taken to prepare rivers for unimpeded passage of mudflows and to prevent flooding during heavy rainfall and intensive melting of glaciers; work was organized to prevent the harmful effects of mudflows, landslides and water rise in rivers.

**Projects.** Within the framework of the “National disaster risk management” project (ADB) aimed at supporting the efforts of the Government of Tajikistan to reduce economic losses due to natural disasters, the following events were held: (1) training course “Disaster risk reduction training to develop the curriculum strategy with the Ministry of Education of the Republic of Tajikistan” (February 2-5); (2) workshop on climate impacts and adaptation (November); (3) workshop on development of a monitoring and information system to implement the “National strategy for disaster risk reduction for 2019-2030” (November 29). ADB approved a \$30-million grant complementing the ongoing project to strengthen disaster risk management in Tajikistan.

As part of the “Strengthening disaster resilience and accelerating implementation of Sendai Framework for Disaster Risk Reduction in Central Asia” project (EU), the following events were held: (1) two workshops on self-assessment (May 17-18, Dushanbe); (2) workshop on the use of DesInventar-Sendai disaster information management software (July 20-21, Dushanbe); (3) regional forum of emergency ministers of the Central Asia republics on disaster risk reduction: strengthening the resilience of the Central Asian region to disasters (October 4-6, Dushanbe); (4) children's drawing

contest as part of the International Day for Disaster Reduction (October 13, Dushanbe); (5) project final meeting (February 15, 2023, Almaty, Kazakhstan).

The “Tajikistan preparedness and resilience to disasters” project is about to start (WB, IDA, \$50 million, 2022-2027); it envisages investments in building the resilience of key infrastructure to natural hazards, improving climate risk mitigation and building national capacity for disaster risk management and climate change adaptation.

**International cooperation.** The delegation of Tajikistan took part in the 25<sup>th</sup> session of the General Assembly of the International Civil Defense Organization, where the Chairman of the Committee for Emergency Situations of Tajikistan signed: (1) a Memorandum of cooperation on emergency management and response with the National Emergency Crisis and Disasters Management Authority of the UAE Supreme Council for National Security; (2) Memorandum of understanding with the Disaster and Emergency Management Authority of Turkey (November 22-24, Abu Dhabi, UAE).

**Events.** The delegation of Tajikistan took part in the: (1) 7<sup>th</sup> Session of the Global Platform for Disaster Risk Reduction (May 23-28, Bali, Indonesia); (2) 34<sup>th</sup> meeting of the Interstate Council on Natural and Man-Caused Emergency Situations (November 25, online, Baku, Azerbaijan); (3) High-Level Central Asian dialogue “From global knowledge to local solutions: climate resilient institutions in Central Asia” (December 2, Tashkent, Uzbekistan).

## Foreign Policy and International Cooperation

**Working and official visits.** In 2022, the President E. Rakhmon paid official and working visits to Egypt, Iran, Uzbekistan, Pakistan, China, Russia, Kazakhstan, Kyrgyzstan and Armenia, where the matters of bilateral cooperation and achieved results were discussed.

**Development of alliances and strategic partnerships.** E. Rakhmon paid an official visit to Uzbekistan in June, where: (1) 15 documents on bilateral cooperation were signed; (2) cooperation aspects, including water and energy use, were discussed; (3) a wide range of regional and international security issues, including problems in Afghanistan were considered, etc.; (4) a launching ceremony of the joint Tajikistan-Uzbekistan project on hydro construction in the Zerafshan River basin was held (June 2-3). See “Bilateral Water Cooperation between the Countries of Central Asia”.

The President of Tajikistan took part in the: (1) CSTO meetings (May 16, Moscow, Russian Federation and November 23, Yerevan, Armenia); (2) 4<sup>th</sup> Consultative Meeting of the Heads of CA States<sup>124</sup> (July 21, Cholpon-Ata, Kyrgyzstan); (3) meeting of the Council of Heads of SCO States (September 16, Samarkand, Uzbekistan); (4) CIS informal meetings (October 7 and December 26, Saint Petersburg, Russia); (5) 6<sup>th</sup> CICA Summit (October 13, Astana, Kazakhstan); (6) 1<sup>st</sup> summit

<sup>124</sup> 5<sup>th</sup> Consultative Meeting of the Heads of CA States is planned for September 14-15, 2023 in Dushanbe together with the regular meeting of the Council of Heads of IFAS founder states

“Central Asia+Russia” (October 14, Astana, Kazakhstan); (7) 1<sup>st</sup> EU-Central Asian leaders' meeting (October 27, Astana, Kazakhstan).

**Foreign investments.** According to the results of 2022, the inflow of direct investments from other countries to the republic amounted to about \$430 million, of which 85% were directed to mining, 13% – production and processing, 1.7% – construction and other spheres. 21 new agreements were signed with development partners to implement public investment projects totaling over \$717 million. As of January 2023, 72 public investment projects worth \$4 billion are implemented in the country.

**Chairmanship in IFAS.** As part IFAS chairmanship: (1) meetings of the Board of IFAS were held; the Board addressed topical aspects of the Fund's activities and prospects for further cooperation between the founder-states within the Organization (February 22 and November 28, Dushanbe); (2) the Working Group on institutional and legal improvement of IFAS continued its activity. See “International Fund for Saving the Aral Sea”.

**Promotion of the national interests and reinforcement of the country's image.** Tajikistan is the holder of the important global “Dushanbe Water Process”, under which the 2<sup>nd</sup> International High-Level Conference on the International Decade for Action<sup>125,126</sup> “Water for Sustainable Development”, 2018-2028 was held towards the UN Water Conference 2023 (June 6-9, Dushanbe).

The Republic of Tajikistan and the Kingdom of the Netherlands, being co-chairs (UNGA Resolution No.75/212) of the UN Water Conference 2023, held sessions and symposia on the forthcoming conference at high-level regional and international events: (1) 9<sup>th</sup> World Water Forum (March 21-26, Dakar, Senegal); (2) 4<sup>th</sup> Asia-Pacific Water Summit (April 23-24, Kumamoto, Japan); (3) High-level symposium on water at the UN Ocean Conference (June 24-July 1, Lisbon, Portugal); (4) World Water Week (August 23-September 1, Stockholm, Switzerland); (5) Cairo Water Week (October 16-19, Cairo, Egypt); (6) Social forum of the Human Rights Council “Water for human rights and sustainable development” (November 3, Geneva, Switzerland); (7) Conference on climate change (November 7-18, Sharm el-Sheikh, Egypt).

Moreover, Tajikistan and the Netherlands together with the UN country offices organized: a seminar (February 2, Dushanbe), a session (April 5, Geneva, Switzerland), the First Geneva Water Dialogue (July 1, Geneva, Switzerland), the Dialogue “UN Water Conference 2023 – public-private partnerships for scaling” (October 24, New York, USA), briefing (December 2, Dushanbe), etc.

At the opening session of the preparatory meeting for the UN 2023 Water Conference, the President of Tajikistan noted: “...The Dushanbe Conference brought the outcomes of different regional and global event platforms together, elaborated key messages for the

New York Conference and laid down a genuine framework for promoting one of its major results – “Water Action Agenda”... The topics of the interactive dialogues that refer to the critical challenges of the water sector have been developed by Tajikistan and the Netherlands following consultations with member states and stakeholders... At the same time, from our point of view, the “Water Action Agenda” needs new and innovative commitments and actions...” (October 25, online).

At the general debate of the 77<sup>th</sup> UNGA session, the Foreign Minister of Tajikistan emphasized that the impact of climate change on water resources “...is another crucial topic that requires our concerted efforts. Along with the increase in mudflows and floods, water scarcities and droughts, and changes in the hydrological cycle, today the accelerated melting of glaciers, the primary sources of fresh water on the planet, is of great concern. To this end, Tajikistan is actively promoting an integrated approach to addressing water and climate issues, including within the Water and Climate Coalition...” (September 24, New York, USA). At the initiative of Tajikistan, the 53<sup>rd</sup> plenary meeting of the 77<sup>th</sup> UNGA session unanimously adopted the resolution “International Year of Glaciers' Preservation, 2025” (see above “Climate Change, Glaciers and Environmental Protection”).

Tajikistan hosted the 3<sup>rd</sup> meeting of the Water and Climate Coalition leaders, which resulted in the approval of the “Action plan for integrated water and climate agenda” (4 June, Dushanbe).

The delegation of Tajikistan took part in the 4<sup>th</sup> joint meeting of the Working Groups on Integrated Water Resources Management (IWRM) and on Monitoring and Assessment, marking the 30<sup>th</sup> anniversary of the Water Convention (28-30 July, Tallinn, Estonia).

### Sources

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 Ministry of Foreign Affairs (<https://mfa.tj/ru/>)  
 Ministry of Economic Development and Trade (<https://medt.tj>)  
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 Ministry of Energy and Water Resources (<https://www.mewr.tj/>)  
 Ministry of Agriculture (<https://moa.tj/ru/>)  
 Committee for Emergency Situations and Civil Defense (<https://khf.tj>)  
 Committee for Environmental Protection (<http://tajnature.tj/ru/>)  
 Agency for Land Reclamation and Irrigation (<https://www.clr.tj/ru/#>)  
 Agency for Hydrometeorology (<http://www.meteo.tj/>)  
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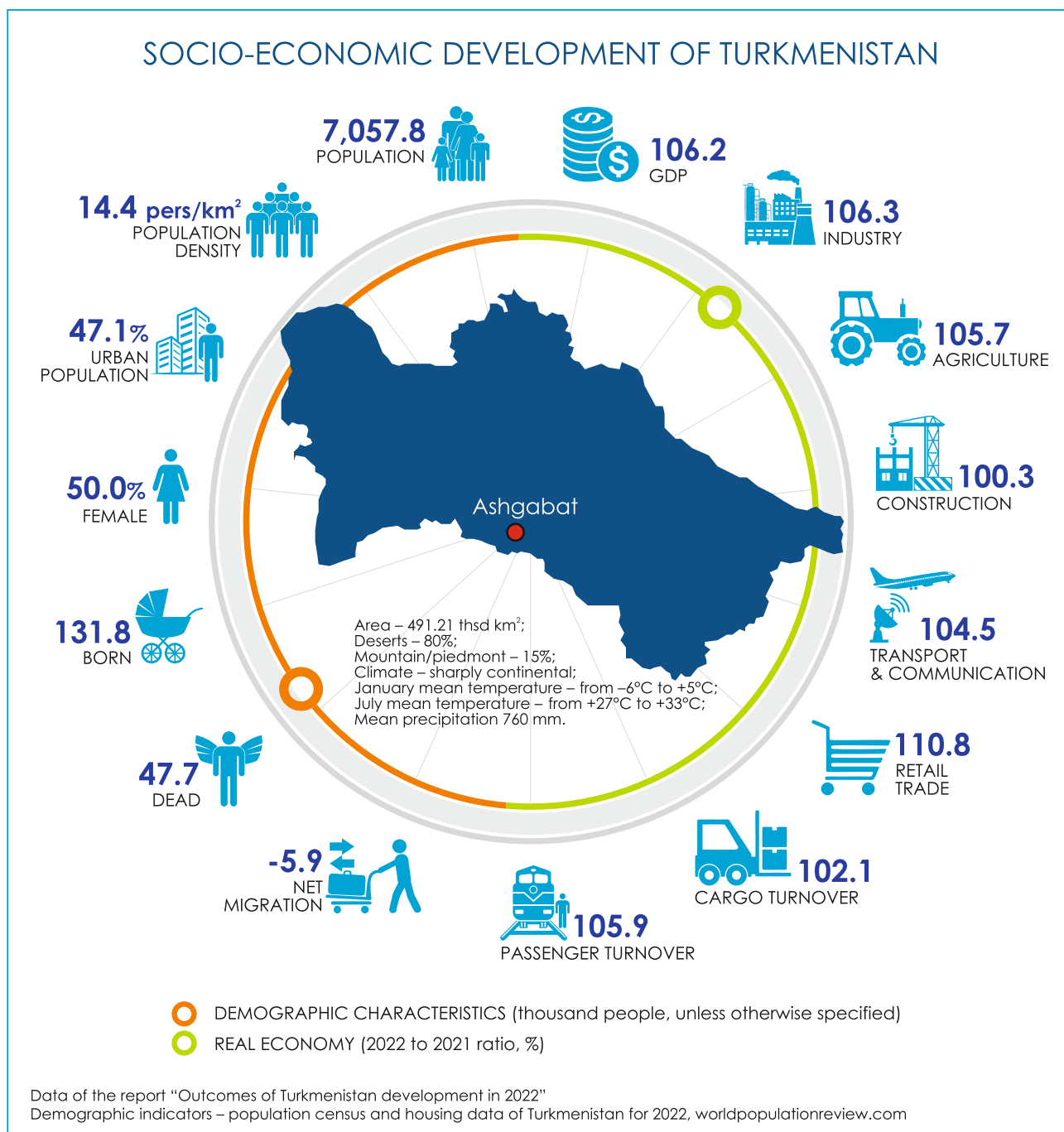
Information agencies and sites:

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<http://sugdnews.com>; <http://eco.uz>;  
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<https://www.adb.org>; <https://www.trend.az>

<sup>125</sup> 1st International High-level Conference on the International Decade for Action “Water for Sustainable Development”, 2018-2028 was held on June 20-21 in Dushanbe. The Conference adopted the Final Declaration

<sup>126</sup> For the Conference, see “2022 Calendar of Events”

## 5.4. Turkmenistan



### Water Sector

**Water resources.** The total volume of water resources of Turkmenistan is comprised of the surface runoff of the Amu Darya (88%), Murgab (6.5%), Tedjen (3.5%), and Atrek, Sumbar and Chandyr (1.4%) rivers, as well as the small watercourses of the northeast slopes of Copetdag (0.6%), and the insignificant groundwater resources and collector-drainage waters. All large rivers of Turkmenistan are transboundary, i.e. 95% of surface water in the water balance of Turkmenistan is formed outside the country.

**Programs.** The efforts under the Socio-Economic Development Program for 2019-2025, which envisaged measures for water saving, augmentation of water stock, prevention of salinization and reclamation of agricultural land, were continued. The focus is put on application of advanced irrigation and water use methods and on creation of additional water reserves. In particular, the second phase<sup>127</sup> of the new 1.6-billion m<sup>3</sup> reservoir which is to replace the heavily silted Zeyid reservoir – the largest one in the country – is under construction and the third phase is at design stage. The total capacity of the reservoir will be 3.8 billion m<sup>3</sup>.

<sup>127</sup> Project's first phase was completed in 2015. The water storage is 1.2 billion m<sup>3</sup>



Efforts are continued as part of implementation of the concept for development of the Turkmen Lake Altyn Asyr region in 2019-2025.

**Projects.** In the course of the demonstration project “Tuyamuyun Hydroscheme” implemented by Turkmenistan and Uzbekistan within the framework of the EU-funded project “Nexus Dialogue in Central Asia” (Phase 2, CAREC), the project’s technical working group held three meetings (February 15, October 26, December 5); consultants from “Deltares” and “Tipping Point Resources Group” offered technical solutions for utilization of silt in the Ruslovoye reservoir, the regional steering committee was presented with the results of comprehensive assessments (Urgench, Uzbekistan).

As part of the USAID Regional Water and Vulnerable Environment Activity, the following events were organized: (1) a workshop on methods and software for long-term water and energy planning for representatives of Turkmenistan ministries; (2) training on an automated water monitoring system to be installed on the Karakum River, for experts of the State Committee for Water Management and other water agencies; (3) the Water-Energy-Food-Environment (WEFE) Nexus simulation game; (4) training on legislative changes regarding water use and new water development strategies and how to ensure financial sustainability of Small Basin Council (SBC) of the Murghab River for the representatives of the State Committee for Water Management and members of SBC.

On UNDP projects see [United Nations and its Specialized Agencies](#).

**International cooperation.** A regular meeting of the joint Turkmen-Uzbek Intergovernmental Commission for Water<sup>128</sup> and a meeting of water ministers of Turkmenistan and Uzbekistan were held on July 1-2 in Dashoguz, Turkmenistan. As a result, a memorandum of cooperation was signed. See “[Bilateral Water Cooperation between the Countries of Central Asia](#)”.

A bilateral Agreement between the governments of the two countries on management, protection and sound use of the Amu Darya River water was signed in the course of the state visit of President Serdar Berdimukhamedov to Uzbekistan (July 14-15, Tashkent). See “[Bilateral Water Cooperation between the Countries of Central Asia](#)”.

The ICWC member from Turkmenistan participated at the 82<sup>nd</sup> meeting of ICWC (April 27, Turkistan, Kazakhstan). The 83<sup>rd</sup> meeting of ICWC was held in Ashgabat (November 22). Representatives of WG from Turkmenistan took part in the IFAS Board meetings. See “[International Fund for Saving the Aral Sea](#)”.

**Drinking water supply.** Implementation of the “General Clean Water Program” is underway. A new water treatment facility capable of treating 20 thousand m<sup>3</sup> a day was launched in Baherden etrap of Ahal province. The facility covers an area of 4.2 ha. The process of water treatment, disinfection and preparation for water supply is controlled and monitored automatically.

The hydrogeological field office of the “Turkmengeologiya” State Corporation explores groundwater, assesses its reserves, and observes conditions of operating wells. In 2022, the hydrogeological field office found drinking water deposits on an area of 130.8 km<sup>2</sup> in Lebap velayat and registered them as Turkmenabad aquifer.

**Events.** The Turkmenistan delegation took part in: the 4<sup>th</sup> Asia-Pacific Water Summit (April 23, online); the Central Asian International Scientific-Practical Conference “30 years of Water Cooperation in Central Asia: facing the future” (April 26-27, Turkistan, Kazakhstan); 2<sup>nd</sup> International High-Level Conference on the International Decade for Action “Water for Sustainable Development”, 2018-2028 (June 6-9, Dushanbe, Tajikistan).

## Agriculture

At year-end, farmers of Turkmenistan fulfilled the state order for wheat and rice production for 1.5 million tons and 82.5 thousand tons, respectively. The cost of 1 ton of wheat harvested above the state order was priced at 1,600 Turkmenistani manat. Local private producers have been receiving land plots for growing crops from the ‘state order’ list in line with the established procedure.

**Latest developments in legislation.** In line with the laws amending and supplementing the Land Code<sup>129</sup> (of 17.04.2022 and 05.12.2022), a new paragraph was added to Article 46 and stated that “The irrigated land of daykhan associations of at least 10 ha is transferred for a long-term rent for growing wheat and cotton under the state order” (para.4); Article 65 was re-written as “...The acreage of agricultural land transferred for a long-term rent is determined procee-



<sup>128</sup> Agreement on the Joint Turkmen-Uzbek Intergovernmental Commission for Water of 26 May 2021

<sup>129</sup> Law 243-P of 25.10.2004

ding from the following conditions: the integrity of cultivated land and the effective sharing of land" (para.2). The law amending and adding the Law on plan quarantine<sup>130</sup> was adopted on May 8.

**Agroindustry reformation and modernization.** The work is underway in line with the Resolution of the People's Council of Turkmenistan (Khalk Maslakhaty) "On further reformation of the agricultural sector" (of September 25, 2018) and the Socio-Economic Development Program for 2019-2025. A new program "Revival of a powerful state: National program for socio-economic development of Turkmenistan for 2022-2052" was adopted.

Comprehensive measures are taken to re-structure agriculture, develop new rural economic relations, ensure sound use of land and water resources, and improve soil fertility and crop yields. In line with the presidential decree on economic incentives for producers of wheat, cotton and sugar beet (No.269 of 23.09.2022), the format of economic incentives (No.524-Ö/314 of 7 October 2022) was adopted and the rules of seed production in Turkmenistan were approved.

Local researchers developed new types of fertilizers (bio- and NPS-fertilizer) and presented an innovative technology for soil bio-fertilization in order to reduce salinity of cultivated land. Medium-fiber cotton varieties, such as Akhal-5, Yoloten-52, Yoloten-54, Dashoguz-150, Ashgabat-140, and Garashsyzyk-30, thin-fiber cotton "Yoloten-56", and soft and hard winter wheat, barley, soybeans, and grapes bred in 2018-2021 are tested in crop-breeding stations.

**Projects.** The project "Supporting climate resilient livelihoods in agricultural communities in drought-prone areas of Turkmenistan" (UNDP/GEF) has been completed. The following events were organized in 2022: (1) a workshop to build gender-sensitive adaptation capacities (February 21); (2) a working meeting to discuss the curriculum on IWRM (February 22, online); (3) concluding meeting, where the main project achievements were discussed (April). The analysis of the national strategic documents was published to determine opportunities for integrating gender aspects into planning of adaptation activities in water and agricultural sectors of Turkmenistan.

As part of the Project "Integrated natural resources management in drought-prone and salt-affected agricultural production landscapes in Central Asia and Turkey" (FAO/GEF): a training in salinized land mapping was held jointly with the Global Soil Partnership (April 26-28, online); agricultural equipment and machines were bought and shipped; modern hothouses were put into operation in the training farm polygon of the Turkmenistan Agricultural Institute, the forestry authority of Dashoguz province, the Daykhan Karakum), and field laboratory equipment was procured for rapid analyses.

On FAO projects in Turkmenistan, see "United Nations and its Specialized Agencies".

**International cooperation.** On August 5-6, a meeting was held between the leadership of the Ministry of Agriculture and the State Committee for Water Management, representatives of relevant subdivisions of Turkmenistan and the Uzbek delegation led by the Deputy Minister of Agriculture with the purpose of further extending cooperation on agriculture and water (Ashgabat).

The delegation of Turkmenistan, as an observer state of the Organization of Turkic States (OTS) took part in the 1<sup>st</sup> meeting of agricultural ministers of OTS and the Turk Agro-Forum (July 4, Tashkent, Uzbekistan).

## Energy

12 state power plants, with the total installed capacity of 6,511.2 MW, are operated by the Ministry of Energy. In January-November, electricity production in the country grew by 110.1% and exports increased by 129.7%.

**National strategies and programs.** The work on implementation of the State Program for Energy Saving for 2018-2024, the Program of energy diplomacy development for 2021-2025 and the National Strategy on Renewable Energy Development in Turkmenistan until 2030 is underway. A Roadmap was approved for the development of international cooperation on hydrogen energy for 2022-2023. In this context, a Center for Hydrogen Energy was launched at the [Ya. Kakaev International Oil and Gaz University](#).

**Capacity building.** The OSCE Centre in Ashgabat held workshops on the use of renewables (April 25-26), implementation of advanced technologies and innovative solutions for the development of hydrogen energy and the implementation of energy-efficient approaches (April 28-29), green energy diplomacy (October 26-27), and an online roundtable to discuss the draft of the roadmap for development of green hydrogen energy in Turkmenistan (May 11).

**Events.** Turkmenistan hosted the following events: the international conference entitled "Development of construction, industry and energy sectors in Turkmenistan" (August 6-7, Ashgabat) on the sidelines of the international exhibition "Construction, industry, and energy of Turkmenistan 22"; conference "Green energy and EU strategies on the use of hydrogen and reduction of methane emissions" organized jointly with EU (November 22-23, Ashgabat).

**Regional and international cooperation.** Following the negotiations between Turkmenistan and Kazakhstan, a package of bilateral documents, including the Memorandum of Understanding between the energy ministries of the two countries, was signed (October 15, Astana, Kazakhstan). See "Bilateral Water Cooperation between the Countries of Central Asia".

<sup>130</sup> Law 54-IV of 15.08.2009

The Turkish company Çalık Enerji Sanayi ve Ticaret A.Ş started constructing the first 10-MW solar-wind plant in Serdar district of Balkan province. Thus, new settlements adjacent to Lake Altyn Asyr will be provided with clean energy.

## Environment and Climate Change

**Latest developments in legislation.** As part of the [Governance Support Program](#), USAID in partnership with national stakeholders and legal experts has drafted a law on environmental monitoring and organized a roundtable for the government agencies and organizations responsible for environmental monitoring ([June 7](#), Ashgabat). The draft law reflects the requirements of international conventions and agreements as well as the Government of Turkmenistan's strategic priorities such as conservation of biological diversity, effective use of natural resources and the protection of ecosystems. In particular, the draft law supports national policies on environmental protection and safety.

**National programs and strategies.** Some provisions in the current National Strategy on Climate Change have been integrated into the national sectoral programs and socio-economic development plans.

The Government has approved the Nationally Determined Contributions<sup>131</sup> (NDC) for submission to the Secretariat of the UN Framework Convention on Climate Change. This document is a plan of actions for mitigation of climate change, including the long-term goal to keep the global average temperature well below 2°C of preindustrial level and make efforts to limit the temperature growth to 1.5°C in line with the Paris Agreement.

The following programs are implemented successfully: (1) the National Forestry Program of Turkmenistan for 2021-2025 (approved on 25.06.2021), as part of which tree planting campaigns are conducted to expand green spaces in cities and around settlements. The city of Ashgabat has got a UNECE certificate for the active green space expansion and for contribution to the Trees in Cities Challenge; (2) National Program for the Aral Sea for 2021-2025 (approved on 22.10.2021), which is the main document determining a set of measures for socio-economic and environmental improvement in the Dashoguz province in the context of Aral Sea disaster. The Program makes preparation for the construction of a big artificial lake between the Shasenem and Turkmen rivers that flow from the Dueboyun reservoir.

**Projects.** "[Sustainable cities in Turkmenistan: Integrated Green Urban Development in Ashgabat and Awaza](#)", (UNDP/GEF): a Plan for the contemporary environmental system in Ashgabat is developed with the support of UNEP. The following events were organized: (1) a webinar on the intermediate results of the preparation of the Fourth National Communication

on Climate Change (NC4) and First Biennial Update Report of Turkmenistan under the UNFCCC and the briefing on the development of the updated draft NDC of Turkmenistan under the Paris Climate Agreement ([March 4](#), online); (2) a seminar entitled "Introducing international experience in the development of regulatory and technical documents for the promotion of renewable energy sources in Turkmenistan" ([May 30](#), online); (3) an educational session themed "Only One Earth" for children (June 7, Turkmenbashi).

A new project "[Conservation and Sustainable Management of Land Resources and High Nature Value Ecosystems in the Aral Sea Basin for Multiple Benefits](#)" funded by GEF and to be implemented by UNDP and the Ministry of Agriculture and Environmental Protection of Turkmenistan was [signed](#). The project is aimed at the conservation and effective use of key ecosystems, land and water resources, and biodiversity in Lebap and Dashoguz provinces in the Turkmen part of the Aral Sea basin. Also, the project will support the implementation of the National Aral Sea Program for 2021-2025. A national [workshop](#) on water diplomacy was held as part of the project on December 15 in Dashoguz.

**Capacity building:** (1) a meeting with young eco-activists ([February 25](#), Ashgabat); (2) a training for personnel of weather stations in Balkan province (April 4-8, Ashgabat); (3) a seminar on international experiences and best practices of the OSCE participating States in accession to and implementation of the UNECE Espoo Convention ([May 30-31](#), online).

**Events.** The following events were organized in 2022: (1) 3<sup>rd</sup> and 4<sup>th</sup> coordination meetings of the Climate Group of Development Partners, where an update on the climate change agenda, Turkmenistan's priorities under the recently approved NDC, and the initiative of Turkmenistan to establish the Regional Center for Climate Change Technologies for Central Asian countries in Ashgabat were discussed ([May 31](#), [September 6](#), Ashgabat); (2) scientific and practical conference "State environmental policy – the basis for sustainable development and green economy" on occasion of the World Environment Day (June 5, Ashgabat); eco-festival "Let's save Earth together" (October 9, Ashgabat).

Delegations from Turkmenistan participated in a number of major regional and international events, including: (1) the regional conference "Central Asian Dialogue on Readiness for Climate Finance through Collaboration and Partnership" (April 12-13, Bishkek, Kyrgyzstan); (2) the 15<sup>th</sup> World Forestry Congress at the ministerial level ([May 2-6](#), Seoul, Korea); (3) 33<sup>rd</sup> session of the CIS Interstate Council on Hydrometeorology (September 14, Nur-Sultan, Kazakhstan); (4) 4<sup>th</sup> Berlin Conference on Climate and Security ([October 11-12](#), Berlin, Germany); (5) 27<sup>th</sup> Conference of the Parties to the UNFCCC /COP27, (November 7-18, Sharm El Sheikh, Egypt); (6) SPECA Economic Forum (November 16-17, Almaty, Kazakhstan).

<sup>131</sup> NDC is developed by the Government of Turkmenistan in partnership with UNDP. Turkmenistan ratified UNFCCC in 1995 and the Paris Agreement in 2016

## Emergencies

The Government of Turkmenistan is making progress in building the country's disaster risk management capacity and in fulfilling its commitments under the Sendai Framework for Disaster Risk Reduction 2015-2030.

**Projects.** As part of the project "Strengthening disaster resilience and accelerating implementation of Sendai Framework for Disaster Risk Reduction in Central Asia" (EU/UNDRR), an inter-agency working group for disaster risk reduction (DRR) has been established to serve as a national platform on DRR. In 2022, meetings of the Group (February 16, February 23, Ashgabat) and a workshop on the disaster risk management capacity assessment and development process (May 16, Ashgabat) were held.

**International cooperation.** Turkmenistan ratified an agreement<sup>132</sup> with Kazakhstan on civil defense and emergency prevention and recovery (January 14).

Russian JSC "Vozrozhdenie" built and put into operation a 49-km long complex of mudflow drainage structures in Ashgabat. The complex was awarded 4 international certificates.

The Turkmenistan's delegation took part in the regional forum of emergency ministers of the Central Asia republics. The participants discussed how to coordinate actions for strengthening regional cooperation on DRR, combating climate change, and implementation of the Sendai Program and the Strategy for development of DRR cooperation in CA for 2022-2030 and the matters related to formation of early warning systems and emergency information sharing (October 4-6, Dushanbe, Tajikistan).

## SDG in Turkmenistan

The Government of Turkmenistan and the UN are monitoring regularly the process of achievement of SDGs. The UN Sustainable Development Cooperation Framework for 2021-2025 signed by Turkmenistan is closely connected with the country national socio-economic development programs and reflects Turkmenistan's commitments to the sustainable development agenda. Turkmenistan ranked 99 among 163 countries in the annual sustainable development rating.

The national SDG Working Group of Turkmenistan and UN held an online meeting to review the progress in implementation of SDGs in Turkmenistan and to agree on the next steps towards presenting its Voluntary National Review (VNR) in June 2023 (June 23). UNDP in Turkmenistan and "Turkmenportal" (<https://turkmenportal.com/>) have signed a Memorandum of Understanding (MOU) to strengthen its partnership for accelerating the implementation of SDGs in Turkmenistan and beyond (September 7, Ashgabat). The delegation of Turkmenistan took part in high-level event "2022 SDG Moment" (September 19, New York, USA).

As part of: (1) the project "Partnering for SDG acceleration", UNDP provided server equipment for the National SDG Database; (2) "Young SDG Ambassadors", the third cohort of young ambassadors was selected (April 4-May 30, Ashgabat); they were introduced to the work of UN agencies, MFA and ministries of economy and finance of Turkmenistan (August 29-30, Ashgabat). The young ambassadors are expected to promote SDGs among youth.

## Cooperation on the Caspian Sea

The **Sixth Caspian Summit** was held on 29 June in Ashgabat. Presidents of Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan discussed the matters of pentilateral cooperation on the Caspian Sea and adopted a Communique. Before the Summit, a meeting of foreign ministers of the Caspian states was held on 28 June.

In the course of the year, Turkmenistan hosted: (1) the regular meeting of the Inter-departmental Commission of Turkmenistan on the Caspian Sea (February 1, Ashgabat); (2) a workshop "The Caspian Sea – Sustainable Development and Stewardship" (March 4-15, Turkmenbashi); (3) the International Day of the Caspian Sea and the scientific-practical conference "The Caspian Sea – the sea of friendship and harmony" (August 12, Turkmenbashi).

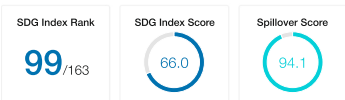
Turkmenistan participated in the International Assembly "Caspian Dialogue-2022" (May 11, Moscow, hybrid format); Forum "Caspian 2022: Sustainable Development Paths" (May 22-24, Astrakhan, RF); meeting of working groups on science and aquaculture of the Commission on Conservation, Rational Use of Aquatic, Biological Resources of the Caspian Sea and Management of their Joint Stock (June, online); Caspian

### Turkmenistan

Eastern Europe and Central Asia



OVERVIEW INDICATORS



#### SDG Dashboards and Trends



**Dashboards:** ● SDG achieved ● Challenges remain ● Significant challenges remain ● Major challenges remain ● Information unavailable  
**Trends:** ↑ On track or maintaining SDG achievement → Moderately improving → Stagnating ↓ Decreasing → Trend information unavailable

<sup>132</sup> The agreement was signed in the course of the state visit of the President of Kazakhstan to Turkmenistan on October 24-25, 2021

Media Forum-2022 (September 8-11, Astrakhan, RF); and, 2<sup>nd</sup> Caspian Economic Forum (October 5-6, Moscow, RF).

## Foreign policy and International Cooperation

In 2022, the President of Turkmenistan paid state, official and working visits to Korea (February), Saudi Arabia, Russia and Iran (June), Uzbekistan (July and September), Kyrgyzstan (July), Kazakhstan (October), and Qatar (December).

A number of high level officials visited Turkmenistan: presidents of India (April), Tatarstan (April), Kazakhstan (June), Iran (June), Russia (June), Uzbekistan (October), Azerbaijan (December); prime ministers of Georgia (July), Kazakhstan (February).

### Key developments in the foreign policy of Turkmenistan

The President of Turkmenistan has approved the **Concept of Turkmenistan's foreign policy for 2022-2028** aimed at peace and security, permanent neutrality of the country, extended foreign economic ties, and sustainable development of international relations (July 8). The Concept also outlines the steps for the enhancement of regional environmental cooperation.

#### Development of alliances and strategic partnerships.

Within the framework of regional cooperation, Turkmenistan: (1) hosted the Central Asian Expert Forum "Topical aspects of regional cooperation on climate change, water use, food security and information and communication technologies in the Central Asian region" (December 10, Ashgabat). See "[2022 Calendar of Events. Major Events in Central Asia](#)"; (2) participated in the 4<sup>th</sup> Consultative Meeting of the Heads of Central Asia States (July 20-21, Cholpon-Ata, Kyrgyzstan), International Conference "Afghanistan: Security and Economic Development" (July 26, Tashkent, Uzbekistan), and the Central Asia-Russia Summit (October 14, Astana, Kazakhstan).

Turkmenistan took part in the **CIS meetings** of: (1) the Council of the Heads of State (October 14, Astana, Kazakhstan); (2) the Council of CIS Heads of Government (May 20, online; [October 28](#), Astana, Kazakhstan); (3) the Council of Ministers of Foreign Affairs ([May 13](#), Dushanbe, Tajikistan; [October 12](#), Astana, Kazakhstan); (4) the Economic Council (March 18, Moscow, RF; June 10, Nur-Sultan, Kazakhstan; September 23, Moscow, RF; December 2, online), and in an informal summit of Heads of State ([December 26](#), St. Petersburg, RF).

**Within the framework of SCO**, President of Turkmenistan met with SCO Secretary General Zhang Ming (September 15, Samarkand, Uzbekistan), participated in the meeting of the SCO Council of Heads of State (September 16, Samarkand, Uzbekistan). Deputy Chairman of the Turkmenistan Cabinet of Ministers participated in the XXI meeting of the Council of

SCO Member State Heads of Government (Prime Ministers) as an observer and as a guest of the presiding party (November 1, online). SCO conducted an Observation Mission during the elections of president in Turkmenistan (March 11-12, Ashgabat).

**Promotion of the national interests and reinforcement of the country's image.** Turkmenistan actively cooperates with the United Nations, EU, OSCE, OIC and ECO.

In 2022, Turkmenistan celebrated **30 years of membership in the United Nations**. A regular meeting of the Joint UN-Turkmenistan Steering Committee for the implementation of UN Sustainable Development Cooperation Framework for 2021-2025 was convened in a hybrid format ([December 15](#)). Turkmenistan initiated a number of resolutions: [Integration of mainstream bicycling into public transportation systems for sustainable development](#)<sup>133</sup>, Zone of peace, trust and cooperation of Central Asia.<sup>134</sup> Turkmenistan was elected a vice chair at the 77 UNGA (June 7). Speaking at 77<sup>th</sup> session general debates, the representative of Turkmenistan to the UN underlined that "...Turkmenistan is preparing for the establishment in Ashgabat a Regional Center for Climate Technologies for Central Asian Countries ...", would "...strive to single out the Aral Sea issue as a separate area of the UN's activities. To this end, in May 2023, we intend to resume negotiations on the draft resolution of ESCAP on the establishment of the UN Special Program for the Aral Sea Basin ..." ([September 26](#), New York, USA). The 45<sup>th</sup> plenary meeting of UNGA 77 adopted the resolution "International Year of Dialogue as a Guarantee of Peace" initiated by Turkmenistan (December 6).

A joint **EU-Turkmenistan Conference on Green Energy and EU Hydrogen and Methane Emissions Reduction Strategies** was held in Ashgabat on [November 22-23](#). The delegation of Turkmenistan participated in the first meeting of the leaders of "Central Asia-European Union" ([October 27](#), Astana, Kazakhstan), 18<sup>th</sup> EU-CA Ministerial Meeting ([November 17](#), Samarkand, Uzbekistan), EU-CA Connectivity Conference: Global Gateway for Sustainable Development ([November 18](#), Samarkand, Uzbekistan).

#### Sources:

Official sites of:

MFA (<https://www.mfa.gov.tm/ru/>);

State Committee of Water Management (<http://turkmenwater.gov.tm/>);

Ministry of Justice (<https://minjust.gov.tm/ru/>);

Ministry of Agriculture and Environmental Protection (<https://minagri.gov.tm/ru/>);

Ministry of Energy (<https://www.minenergo.gov.tm/>)

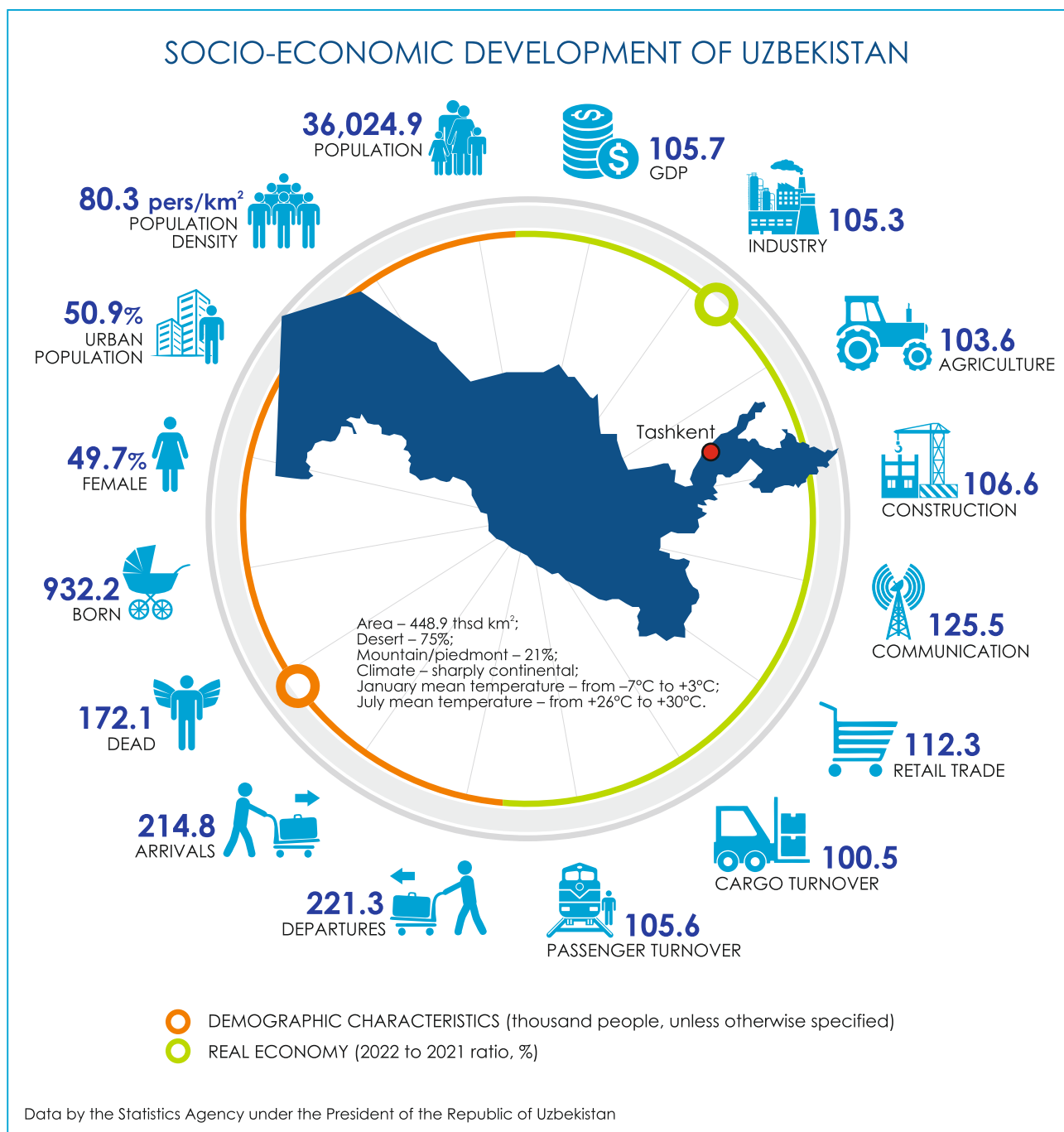
Information agencies and sites:

<https://turkmenistan.gov.tm/ru/>; <https://tdh.gov.tm/ru/>;  
<https://turkmenportal.com/>; <https://orient.tm/ru/>;  
<https://arzuw.news/>; <https://www.parahat.info/>;  
<https://ashgabat.in/?lang=ru>

<sup>133</sup> 76<sup>th</sup> UNGA session, 61<sup>st</sup> plenary meeting, 15 March 2022

<sup>134</sup> 76<sup>th</sup> UNGA session, 97<sup>th</sup> meeting, 28 July 2022

## 5.5. Uzbekistan



### Water Sector

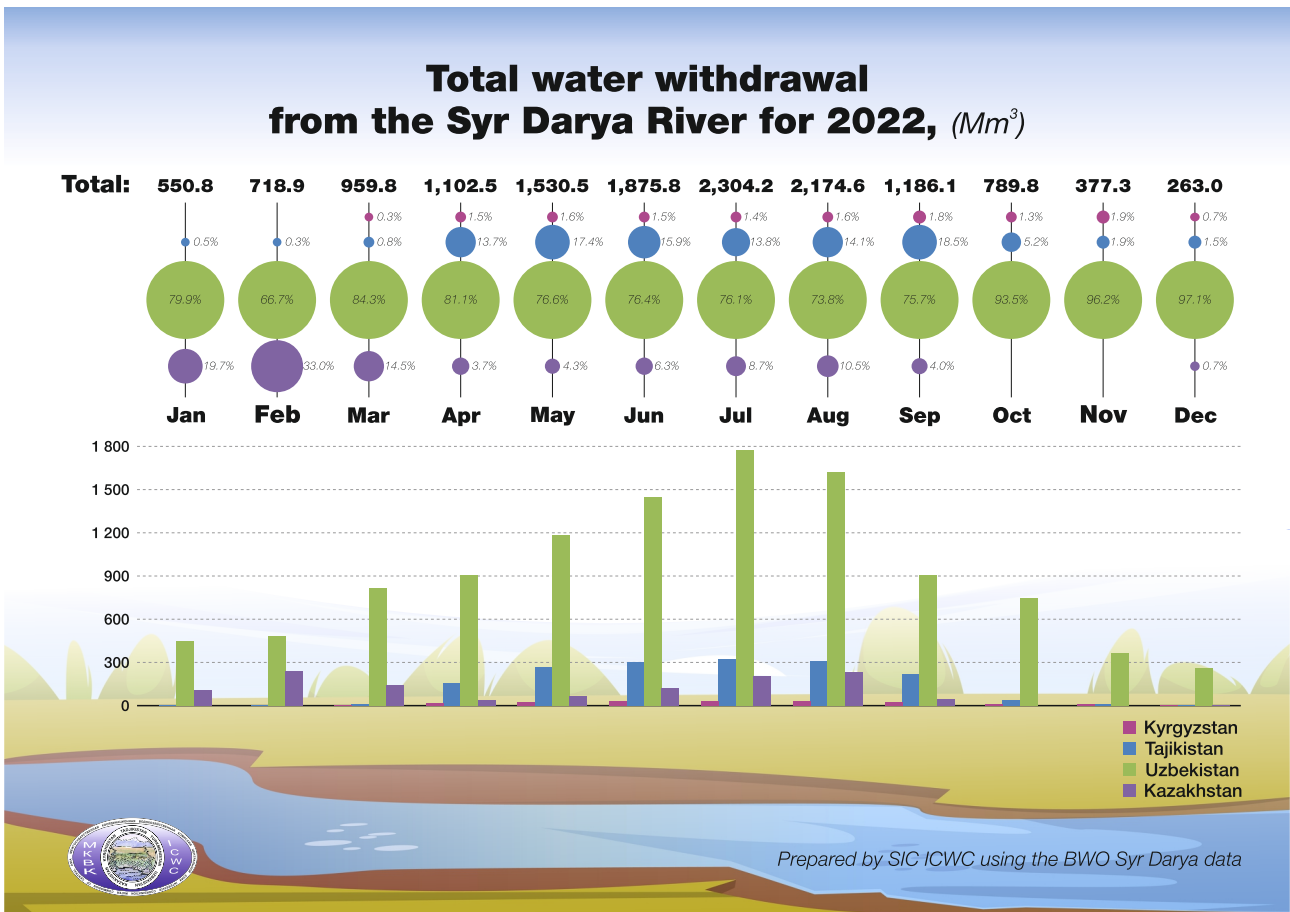
**Water resources.** The average quantity of water used in Uzbekistan is 51–53 billion m<sup>3</sup>, of which 80% (approx. 41 km<sup>3</sup>/year) is got from transboundary rivers.

The estimated natural fresh and brackish groundwater deposits potentially yield 27.6 km<sup>3</sup>/year; however, they are unevenly distributed throughout the country.

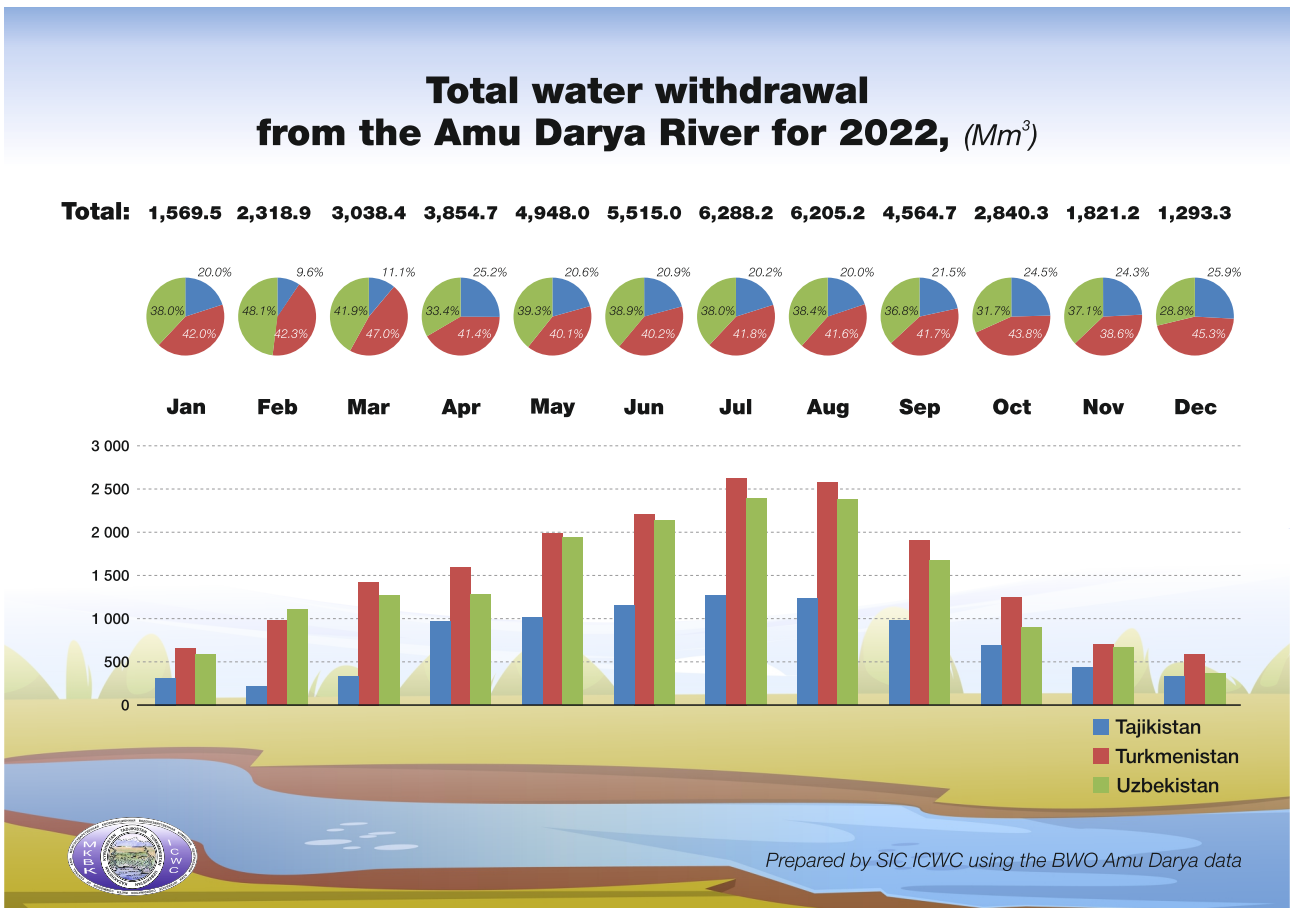
The water demand is met through a combination of surface water (50.9 km<sup>3</sup>/year), usable groundwater (0.5 km<sup>3</sup>/year), and the reused collector and drainage water (1.6 km<sup>3</sup>/year).

The average water use by sector is as follows: agriculture – 90–91%; municipal sector – 4.5%; industry – 1.4%; fisheries – 1.2%; thermal power – 0.5%; other sectors – 1%<sup>135</sup>.

<sup>135</sup> “On approval of the Concept of Water Sector Development in the Republic of Uzbekistan for 2020–2030” (UP RUZ No.6024 of 10.07.2020)



Source: [http://www.icwc-aral.uz/reports\\_syrdarya\\_ru.htm](http://www.icwc-aral.uz/reports_syrdarya_ru.htm)



Source: [http://www.icwc-aral.uz/reports\\_amudarya\\_ru.htm](http://www.icwc-aral.uz/reports_amudarya_ru.htm)

**Latest developments in legislation.** The Development Strategy of New Uzbekistan for 2022-2026<sup>136</sup> and the State Program for its implementation were approved. Target 31 "Implementation of the state program on fundamental changes in the water management and water saving system" of the Strategy sets the following subtargets: (1) save at least 7 billion m<sup>3</sup> of water through efficient water use; (2) reduce electricity consumption by waterworks facilities; (3) introduce a PPP-based water management system.

For the achievement of goals set in the "**Concept of Water Sector Development in the Republic of Uzbekistan for 2020-2030**", the following resolutions were adopted:

- "On measures to further improve agricultural water saving" (PP RUz No. PP-144 of 01.03.2022), which (1) approved the proposal to increase water use efficiency through water saving technologies on an area of 478 thousand ha, including drip irrigation on 230 thousand ha, sprinkling – 28 thousand ha, discrete irrigation – 2 thousand ha, and laser leveling on 218 thousand ha; (2) established a procedure of government support in the form of subsidies to compensate the costs related to adoption of water saving technologies;

- "On measures to improve water management and regulate relations between end water users" (PP RUz No. PP-145 of 01.03.2022). The document defines a number of procedures in context of water management based on PPP principles;

- "On measures to develop social and production infrastructure of the Republic of Uzbekistan in 2022-2024" (PP RUz No. PP-98 of 22.01.2022), which instructed the Uzbek Ministry of Agriculture together with a number of ministries to (1) analyze efficiency and effectiveness of irrigation and land reclamation projects, taking into account water supply, land condition and other specifics of the provinces; (2) make proposals on automation of water and energy measurement and monitoring on irrigation networks and improvement of construction and reconstruction of these networks, including with the use of modern resource-efficient construction materials.

A draft **Water Code** of the Republic of Uzbekistan was posted on the state portal for discussion.

The Agreement<sup>137</sup> on joint water management of the Andizhan (Kempirabad) reservoir between the Government of the Republic of Uzbekistan and the Cabinet of Ministers of the Kyrgyz Republic was ratified (ZRU No. ZRU-805 of 30.11.2022).

**Water management system.** In the course of implementation of the "Strategy for water management

and irrigation development in the Republic of Uzbekistan for 2021-2023"<sup>138</sup>, water saving technologies were introduced on 940 thousand ha; digital technologies were implemented at 11,554 waterworks facilities, including 5,736 Smart Water devices, 4,452 groundwater monitoring tools, and 1,335 online monitoring tools for pumping stations; and, automation was implemented at 31 large hydroschemes; 1.116 trillion UZS were allocated for the construction and reconstruction of irrigation and land reclamation systems.

In Surkhandarya province<sup>139</sup>, a pumping station on the Kapchagay canal was constructed, a 2.4-km water main was laid, construction of a 0.9-km canal near arable land was completed; hydraulic structures were cleaned and repaired, 17 new structures were constructed, and 2 Smart Water devices were installed on 22-km sections of Suenli and Keneges canals.

In Navoiy province, two canals were reconstructed, the Kuksaroy mudflow reservoir was repaired. In Fergana province, a two-stage pumping station was put into operation to lift water to 211 m through a 4-km pipeline network.

**Projects.** For development of the water sector, \$114.88 million were spent as part of a number of international projects, including: \$52.04 million – "Amu Bukhara irrigation system rehabilitation" (ADB), \$17.2 million – "South Karakalpakstan water resource management improvement" (WB), \$10.69 million – "Improved water resources management in Surkhandarya province" (IsDB), \$26.1 million – "Fergana Valley water resource management – Phase II" (WB), \$8.85 million – "Karshi pumping cascade rehabilitation-Phase-III" (SFD).

Ongoing projects: (1) "[Ferghana Valley water resource management – Phase 2](#)" (WB), 49 (62%) regulating structures on tertiary canals and 42 (55%) water-metering facilities were constructed; seminars were held on construction and operation of water metering and distribution unit on the Mukhtar canal (August 22) and on monitoring, assessment and repair of irrigation structures (September 12-15); meetings were held with the "GEDEPSA S.A." consulting company (September 19, Madrid) and the WB Mission, where the "Support to intensification and diversification of agriculture and improvement of water resource management"<sup>140</sup> project was launched (\$2.7 million); (2) "[National water resource management project in Uzbekistan](#)" (SDC), the office and special-purpose equipment was handed over; training seminar for women in water (11 May; 9-12 June) and training on the use of modern water meters (October 17-21) were arranged; the water sector middle- and lower level professional development center was equip-

<sup>136</sup> UP RUz No. 60 of 28.01.2022

<sup>137</sup> agreed on 03.11.2022

<sup>138</sup> PP RUz No. PP-5005 of 24.02.2021

<sup>139</sup> in pursuance of PP RUz No. PP-68 of 22.01.2022

<sup>140</sup> the project (\$2.7 million) is implemented by a consortium of Annexure Financial Solutions Limited (Hong Kong)/SMC International Pty Limited (Australia)



ped; (3) “Amu Bukhara irrigation system rehabilitation”, Kiziltepa-1 pumping station was commissioned; (4) USAID “Regional water and vulnerable environment”, the Syr Darya River Day was celebrated (September 9). For other projects, see <http://www.uzaifsa.uz/en/content/ongoing-projects>.

Under the “EU’s Water Initiative National Policy Dialogues (NPDs) in Central Asia” project (EU, UNECE/OECD, September 2019-February 2023), the 1<sup>st</sup> Steering Committee meeting of NPDs<sup>141</sup> on IWRM, launching NPDs in Uzbekistan, took place; achievements, problems and priorities of Uzbekistan in the field of water policy were discussed; ways of NPDs implementation were agreed upon; intersectoral collaboration, safe and equitable water supply and sanitation, and transboundary cooperation aspects were discussed (September 27, Tashkent). The consortium of CARITAS and CAREC launched the project “Climate resilient integrated water resource management in the Zeravshan River Basin in Uzbekistan”<sup>142</sup> aimed at improving the living conditions of the population in basin by strengthening the capacity of water stakeholders, introducing market instruments and raising awareness of water users. A workshop was organized in Samarkand as part of the initial phase.

The EBRD Board of Directors approved a loan to finance the project<sup>143</sup> “Modernization of 118 pumping stations in Andizhan, Namangan and Fergana provinces” (2023-2027) worth of \$199.96 million (PP RUZ No.PP-438 of 07.12.2022).

Water Ways Technologies Inc.<sup>144</sup> signed an agreement for construction of 6 reservoirs and 6 complete head controls in Bukhara province (February 9).

**Capacity building.** The following events were held among many others: (1) seminars for water professionals on water-saving irrigation technologies (January 11; March 3-5; July 7; November 10); (2) practical seminars for land reclamation services (January 27; April 19); (3) webinar “Water security in Central Asia” (February 11); (4) seminar of the University for World Economy and Diplomacy entitled “Water allocation issues in Central Asia and prospects of their solution” (February 18); (5) training seminar on PPP projects (February 22); (6) workshop within the EU-IWMI program “Sustainable water resource management in rural areas of Uzbekistan”, component I (July 29); (7) training seminar “Introduction of digital technologies and models in water management” (August 23, IWMI); (8) courses on cybersecurity in the water sector (September 5-20); (9) seminar “Efficient use of land and water resources in agriculture” within the framework of the EU-AGRIN project (November 25).

In 2022, the office of the Sectoral Council for Professional Skills and Knowledge Development and the Water Sector Professional Development Centre with the support of the EU and the UNESCO project “Development of employment skills in rural areas of Uzbekistan” were launched.

**Events.** The following events were organized: (1) roundtable “Topical issues of rational water resource use and glacier conservation in Central Asia” (January 19, online); (2) roundtable dedicated to the memory of Prof. Dukhovniy “Science and innovations for water security” as part of the International Central Asian Science-to-Practice Conference “30-years of water cooperation among the Central Asian states: facing the future” (April 26-27); (3) conference “Uzbek-Tajik cooperation on rational use of water resources” (April 29, online); (4) a regional seminar “Central Asia towards the 2023 UN Water Conference” (September 20, Tashkent); (5) workshop on supporting IWRM principles for development of the National Water Strategy of Uzbekistan for 2024-2026 (December 6-7, Tashkent).

Representatives of Uzbekistan<sup>145</sup> took part in the 24<sup>th</sup> ICID Congress and 73<sup>rd</sup> IEC meeting (October 3-6, Adelaide).

**Regional cooperation.** Agreements were signed with: (1) the Government of Turkmenistan on the management, protection and sound use of the Amu Darya River (July 14, Tashkent); (2) the Cabinet of Ministers of the Kyrgyz Republic on joint water management of the Andizhan (Kempirabad) reservoir (November 3, Bishkek); (3) Water Resource Service under the Ministry of Agriculture of the Kyrgyz Republic on water cooperation (November 3, Bishkek). See “Bilateral Water Cooperation between the Countries of Central Asia”.

Deputy Prime Minister took part in the 22<sup>nd</sup> meeting of the IFAS Board (November 28, Dushanbe, Tajikistan).

The following events were held in Tashkent: (1) 3<sup>rd</sup> coordination meeting of the EC IFAS with international development partners (September 20); (2) 8<sup>th</sup> meeting of the Working Group on institutional and legal improvement of IFAS (September 21-22); (4) meeting of the Head of IFAS with the Director of SIC ICSD branch in the Republic of Uzbekistan (November 21).

ICWC member from Uzbekistan Sh.R. Khamrayev participated in 82<sup>nd</sup> (April 27) and 83<sup>rd</sup> (November 22) ICWC meetings. See “IFAS and other regional organizations in Central Asia”.

<sup>141</sup> the project is aimed at improving IWRM and intersectoral coordination to ensure water security at the national level in CA countries. Implemented under the EU-funded “European Union – Central Asia Water, Environment and Climate Change Cooperation (WECOOP)” project

<sup>142</sup> with the support of SDC, Initial Phase – 01.08.2022-31.01.2023, Phase I – 01.02.2023-31.12.2026

<sup>143</sup> total cost – \$247.51 million, including the contribution of the Republic of Uzbekistan – \$47.55 million, of which \$33.95 million in the form of reimbursement of value added tax

<sup>144</sup> a global provider of Israeli-based agriculture technology

<sup>145</sup> the delegation was headed by the Minister of Water Management, Sh.R. Khamraev, ICID Vice-President (2019-2022)

## Drinking Water Supply

According to the Central Public Utility Organization (AO *Uzsvta'minot*), the coverage by centralized drinking water supply to population expanded from 69.7% to 74.4%, while that of centralized sanitation services increased from 17.2% to 18.9%. The amount of drinking water supplies reached 1.19 billion m<sup>3</sup>, while the number of customers equipped with water meters increased from 2.42 to 2.83 million (64.3%). The customer base enlarged from 4.15 to 4.4 million.

Assimilated government **investments** in fixed assets through the Fund for Water Supply and Sewerage Development amounted to 2.9 trillion UZS (92% compared to 2021).

3.3 trillion UZS from government funds and \$185.5 million from international financing institutions were spent for laying 7,130.1 km of drinking water supply networks and 232.9 km of sewerage networks and for construction or reconstruction of 859 water supply and sewerage facilities.

**Latest developments in legislation.** The law "On drinking water supply and sewage disposal" (RUZ No.ZRU-784 of 22.07.2022) sets the following: (1) guarantees drinking water supply of good quality to consumers; (2) the Ministry of Housing and Communal Services<sup>146</sup> is an authorized state body in the sphere of drinking water supply and sewage disposal; (3) organizations of any legal forms may perform as a drinking water supplier; (4) drinking water must be safe in epidemiological, radiation and chemical terms.

Resolutions: (1) "On measures for implementation of "Obod Kishlok"<sup>147</sup> and "Obod Makhalla"<sup>148</sup> programs in 2022-2026" (No.PP-172, 18.03.2022) adopted targets for the improvement of drinking water supply and sewerage systems; (2) "On additional measures to increase the coverage of population by drinking water supply and sewerage services" (No.PP-257, 24.05.2022) adopted the targets for the extension of the coverage by the services and the Program of drinking water supply to secondary schools, preschool educational organizations, medical institutions, and communities.

**Programs.** A number of programs are implemented, including the Program of social and industrial infrastructure development, investment programs, "Obod Kishlok" and "Obod Makhalla" state programs to reconstruct water supply and sanitation infrastructure and construct new ones in provinces throughout the Republic.

**Projects.** AO *Uzsvta'minot* implemented 20 projects through \$1.861-billion loans from the WB, ADB, EBRD, IsDB, Asian Infrastructure Investment Bank, Saudi Fund for Development and OPEC Fund for International Development.

Those included construction of: (1) Kadyria water treatment plant, with a capacity of 100 thousand m<sup>3</sup> per day in Tashkent province and a sewage treatment plant, with a capacity of 30 thousand m<sup>3</sup> per day in Djizak city (at the expense of ADB); (2) sewerage treatment plants for 100 thousand m<sup>3</sup> per day in Bukhara city (WB) and for 4 thousand m<sup>3</sup> per day in Shirin city (IsDB).

At the expense of the local water supply enterprises, 82.8 km of water mains were laid, 7 wells were drilled, 121 pumps were installed, 1.8 thousand drinking water supply networks and 1.8 thousand pumping units were overhauled and repaired. Replacement of 53 pumps with energy saving ones at Syrdarya and Surkhondarya water operators resulted in saving 77 thousand kW of electricity per month in each.

As part of the "Water" program, the non-governmental foundation "ONA"<sup>149</sup> installed 1,200 pumps and 6 treatment facilities in water-short areas.

Agreements were signed with: (1) the International Development Association and the State Secretariat for Economic Affairs of the Swiss Confederation (SECO) for the "Reconstruction of water supply and sewerage systems in Kattakurgan town in Samarkand province" project (\$79.3 million, 2022-2026); (2) the ADB for the "Construction and reconstruction of drinking water supply and sewerage systems in cities and districts of Tashkent Province (Stage 3)" project (\$185.8 million, 2022-2027); (3) the EBRD for the projects<sup>150</sup> "Improvement of drinking water supply in Chust, Pap, Namangan districts and construction of sewerage systems in Chust and Mingbulak district centers in Namangan province" and "Improvement of water supply in Muzrabad district of Surkhondarya province by constructing water mains from Oqtosh and Poshkhurt groundwater deposits"; (4) the Alkataş İnşaat Ve Taahhüt LLC and Mesmer-East LLC for reconstruction of the sewerage treatment plant in Chirchik.

The French Development Agency (AFD) and the European Commission allocated funds for the projects<sup>151</sup>: (1) "Construction of sewerage systems in Karmana district of Navoiy province"; (2) "Reconstruction and construction of sewerage systems in Shakhrisabz city and Kitab district center of Kashkadarya province".

<sup>146</sup> by the Presidential Decree of RUZ No.UP-269 "On measures to implement administrative reforms in new Uzbekistan" of 21.12.2022, the Ministry of Construction and Housing and Communal Services of RUZ is formed on the basis of the Ministry of Housing and Communal Services and the Ministry of Construction of RUZ

<sup>147</sup> improvement of villages

<sup>148</sup> improvement of communities

<sup>149</sup> Non-governmental foundation "ONA" began its work in August 2021

<sup>150</sup> implementation period – 2022-2026, total cost – \$120 million

<sup>151</sup> implementation period – 2022-2027. AFD approved a €105 million loan and the European Commission – a €9 million grant

A governmental resolution was adopted (PP-428 of 18.11.2022) for implementation of the “Transformation of drinking water supply and sewerage systems in Tashkent city” project (€218.8 million)<sup>152</sup>.

**Capacity building.** (1) training courses “Modern management of drinking water supply and sanitation” (March-April) and training seminars (March 1-3) for managers and employees of provincial water supply enterprises under AO Uzsvvta'minot; (2) international press conference “Human resources policy in the water sector: problems and solutions” (May 26). Totally, 1,400 employees upgraded their qualifications in operation, current and capital repairs, and construction quality control; 50 laboratory technicians underwent internal certification.

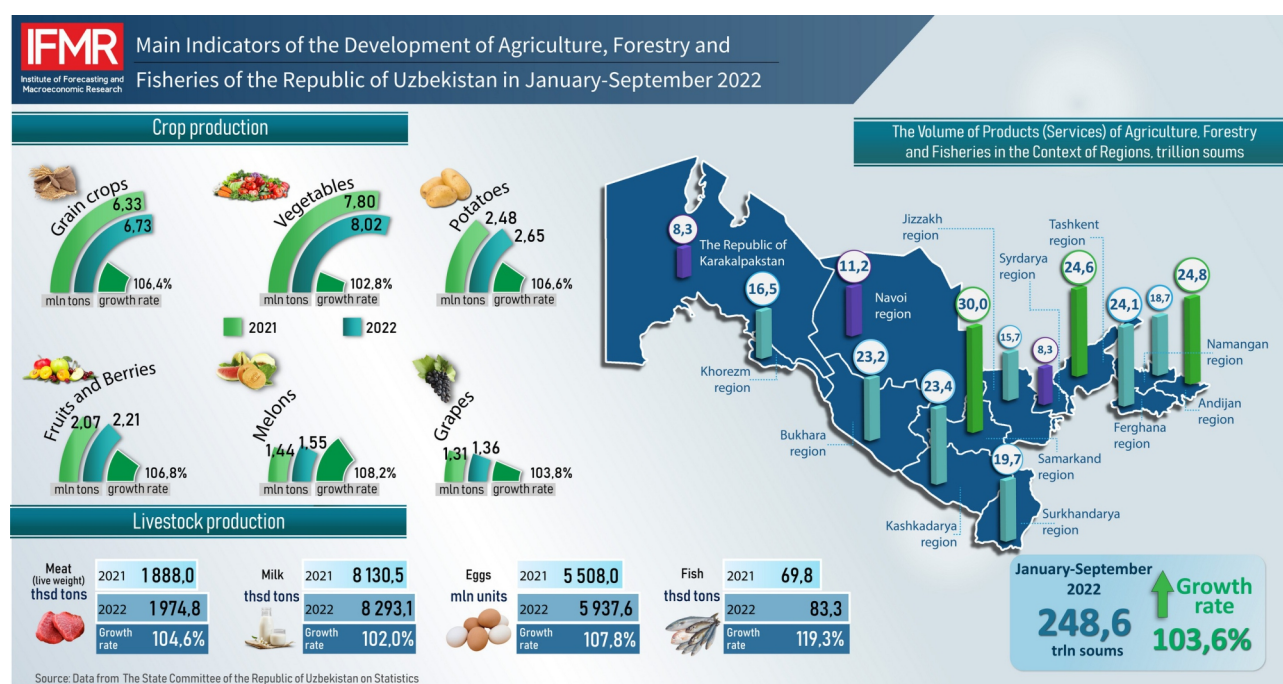
According to the draft resolution “On measures to develop the training system for drinking water supply sector”, a unified scientific center “Water Academy” is to be established with the aim of introducing innovative technological solutions and modern approaches and of building capacities of drinking water supply services.

**International cooperation.** AO Uzsvvta'minot signed: (1) a MoU with South Korea's K-Water Corporation on capacity building in drinking water supply and sanitation in Uzbekistan (June 3); (2) a MoU with the Abu Dhabi Sewerage Services (ADSSC), UAE (November 2); (4) a MoU with the AFD on the improvement of access to drinking water in the regions of Uzbekistan (November 21-22, Paris).

## Agriculture

By the end of the year, crop acreage was 3,260.7 thousand ha. Agricultural production amounted to 347,564.4 billion UZS, including crop production – 179,853.4 billion UZS and livestock production – 167,711.0 billion UZS. The production growth rate was estimated at 103.8% in crop growing and 103.4% in livestock production. Production of meat increased by 3.4%, milk – 3.2%, eggs – 4.4%, grain – 4.7%, potatoes – 4.7%, cucurbits – 5.9%, fruits and berries – 4.6%, grapes – 3.9%, and fish – 3.2%.

Uzbekistan was ranked 73<sup>rd</sup> in the Global Food Security Index 2022 (GFSI) (78<sup>th</sup> in 2021).



Source: Institute of Forecasting and Macroeconomic Research, <https://ifmr.uz/infographics>

**Latest developments in legislation.** To implement the *Agricultural Development Strategy of the Republic of Uzbekistan for 2020-2030*<sup>153</sup>, the following Resolutions were adopted: (1) “On measures to establish the International Agricultural University” (No.PP-237 of 07.05.2022); (2) “On additional measures to effectively implement the tasks defined in the Agricultural Development Strategy of the Republic of Uzbekistan for 2020-2030” (No.PP-273 of 07.06.2022); (3) “On mea-

asures to introduce advanced technologies in agriculture in Uzbekistan at the expense of grant funds of the Republic of Korea” (No.PP-321 of 14.07.2022); (4) “On additional measures to further develop agriculture in Tashkent province” (No.PP-435 of 01.12.2022).

In 2022, a number of laws and resolutions were adopted in support of fisheries, poultry and livestock production (PP-83 of 13.01.2022, PP-100 of 24.01.2022, PP-

<sup>152</sup> implemented jointly with SUEZ International SAS (France)

<sup>153</sup> Decree of the Uzbek President No.UP-5853 of 23.10.2019

121 of 08.02.2022), for soil fertility and crop yields improvement (PP-179 of 25.03.2022), science and innovation-based cotton production (PP-308 of 07.07.2022), combating land degradation (PP-277 of 10.06.2022), etc.

**New appointments.** A.B. Voitov was appointed Minister of Agriculture.

**Strategies and programs.** As part of implementation of the "Agricultural Development Strategy of the Republic of Uzbekistan for 2020-2030", agricultural lands have been put up on the E-AUKSION platform since January 2022<sup>154</sup>. In one year, regional authorities reserved 102.6 thousand ha of land plots (103% compared to the plan), of which 95.5 thousand ha were allocated to 428.7 thousand citizens through open e-tenders.

A **unified information system "Agrosubsidy"** and a special telegram bot [https://t.me/agrosubsidiya\\_support](https://t.me/agrosubsidiya_support) were launched<sup>155</sup> in a test mode; agricultural producers may now submit e-applications for subsidies for adoption water-saving technologies in their production processes.

**Agroclusters.** In 2018-2022, 506 clusters were established in Uzbekistan. In 2022, their production amounted to 28.7 trillion UZS; the share of their output reached 11.4% in the total exports of industrial products.

Two agro-industrial clusters in Namangan province and 14 modern service centers and 100 mobile brigades were formed and equipped in cooperation with CLAAS, John Deere, and Case companies in line with decrees on establishment of horticultural agro-industrial clusters in Namangan province (PKM 309 of 07.06.2022) and of agricultural engineering cluster in Chirchik city (PP Ruz No.PP-335 of 28.07.2022). A modern agro-industrial cluster is to be established in Andizhan province<sup>156</sup>.

The Deputy Business Ombudsman and JICA representatives discussed the cluster system development in Uzbekistan during a meeting on February 28.

**Projects.** The following projects were continued: (1) "Integrated natural resources management in drought-prone and salt-affected agricultural production landscapes in Central Asia and Turkey" (CACILM-2, FAO/GEF). High-tech laboratory equipment was handed over to the "Tuproqsifattahlil" SUE (\$29 thousand); 3 motor tillers and 3 mini hay mowers were handed over to the karakul farm "Guzor" LLC in

Guzar district, Kashkadarya province; households received 5 motor tillers and earth augers each in Bukhara district of Bukhara province and Kamashi district of Kashkadarya province; a training for trainers was conducted (July 18-21); (2) "Sustainable management of forests in mountain and valley areas in Uzbekistan" (FAO/GEF), under which a number of legal documents have been drafted to develop forestry in Uzbekistan and empower women working in the industry; conditions were created to improve the social status of 620 local households; (3) "Smart farming for the next generation" (FAO). In Andizhan, Namangan and Fergana provinces, 20 rural households were supported to modernize and optimize their greenhouses; (4) "Agriculture modernization project for Uzbekistan" (WB). A training of future consultants in AKIS was held (May 10-13), an initial agreement was reached to provide a total of \$20 million for the development of a single integrated Digital Agriculture platform; (5) "Supporting an inclusive transition to a green economy in the Agri-food sector and development of a 'climate-smart' Uzbek Agriculture Knowledge and Innovation System (UAKIS)" (EU/UNDP). Annual work plan was presented (July 20), innovation groups were established; a training (August 19-20) and a seminar "Efficient use of land and water resources in agriculture" (29 November), and the "Zamin Yulduzlari" contest were held. For other projects, see [www.agro.uz/ru/loyihalar/](http://www.agro.uz/ru/loyihalar/).

The new phase of the "Support for intensified and diversified agriculture and improved water resource management" project<sup>157</sup> started (\$2.7 million). A memorandum of cooperation was signed between the project representatives and the Agricultural Knowledge and Innovation System (AKIS) Center, the Council of Farmers, Dekhkan Farms and Homestead Plot Owners of Uzbekistan, the Association "Women of Agrarian Sphere" and the "ShirinMeva" project (March 1); "Farmer's Day" was organized (June 16).

The Presidential Resolution was adopted<sup>158</sup> on the "Financing sustainable development of the livestock sector" project with participation of the AFD (2022-2026, €147.07 million).

**Capacity building.** The **International Agriculture University** was established in Tashkent in cooperation with the UK<sup>159</sup>. The **Uzbekistan Smart Farm**, an industrial technology platform is launched to boost economic growth by increasing the agricultural efficiency<sup>160</sup>. To improve capacities, a resolution was adopted to organize training and experimental farms in agricultural sector (No.527 of 27.09.2022).

<sup>154</sup> according to the Presidential Decree of 08.06.2021 No.UP-6243 "On measures to ensure equality and transparency in land relations, reliable protection of land rights and turning them into a market asset"

<sup>155</sup> according to PP Ruz No. PP-144 "On measures to further accelerate introduction of water-saving technologies in agriculture" of 01.03.2022

<sup>156</sup> in line with the Memorandum of Cooperation between the Ministry of Investment, Industry and Trade of Ruz and E20 Investment Limited (UAE) (24.03.2019)

<sup>157</sup> implemented by the consortium of companies Annexure Financial Solutions Limited (Hong Kong)/SMEC International Pty Limited (Australia) within the framework of the EU "Fergana Valley water resource management-Phase II" project

<sup>158</sup> within the framework of the Agreement with AFD (08.06.2021)

<sup>159</sup> Resolution No.PP-237 of 07.05.2022 "On measures to establish the International Agriculture University". For the 2022-2023 academic year, the total number of quotas is 250, of which 200 are state grants in 7 different areas

<sup>160</sup> developed in cooperation with the knowledge and innovation system in agriculture – AKIS Center, Korean organizations KIAT, KOMI, KITECH, CAMTIC and Agro Solution Korea

Series of workshops for representatives of dekhkan farms (January, Tashkent), practical training “Internal audit – model of opportunities”<sup>161</sup> (March 16), seminar “Seed production – future of agriculture” for farmers and agrarians (March 29, AKIS), workshop “Prospects for the development of artisanal fish farming and aquaculture in Uzbekistan within the framework of the International Year of Artisanal Fisheries and Aquaculture” (March 30)<sup>162</sup>; seminar-presentation of the program “Business game in farming” by German Sparkassenstiftung for international cooperation (April 1), training on “Development of horticulture value chain for extension agents” (May 16-20, USAID), regional training workshop on “Organization of strategic planning and policy development in food security” in cooperation with ADAFSA (May 24-25, Abu Dhabi), international training “Legislative framework of the EU and its impact on the organic production in Uzbekistan” (June 13-14, GIZ), and many other capacity building events were held in 2022.

**International cooperation.** In the course of bilateral negotiations, the agriculture ministers of Uzbekistan and Turkey signed: (1) a roadmap for enhancing strategic partnerships in agro-industry; (2) final minutes of the third meeting of the joint Uzbek-Turkish working group on agriculture; (3) a memo of intention between the agrarian ministries of the two countries on cooperation in agricultural research and development (February 8-9, Tashkent).

Cooperation on application of GIS in agriculture was discussed during the meeting of directors of the Agro-industry Digitization Center (Uzbekistan) and GEO TWO Co.Ltd (Korea) (March 24). At the meeting of the Russian-Uzbek IGC, the agricultural ministries of Russia and Uzbekistan exchanged roadmaps on the development of agriculture cooperation for 2022-2024 (October 23). The Embassy of Uzbekistan in Italy held a briefing on food security reforms in Uzbekistan at the FAO headquarters (June 7, Rome). The Minister of Agriculture addressed the 33<sup>rd</sup> Session of the FAO Regional Conference for Europe (ERC) (May 11, Poland).

A number of meetings were held with Germany, the Organization of Turkic States and ECO, IFAD and other organizations to further develop cooperation on agriculture.

**Events.** The Uzbek Ministry of Agriculture hosted workshops and conferences in cooperation with the: (1) Ask Facility EU Program<sup>163</sup> (February 25); (2) FAO (April 22, May 10-11, July 1); (3) IFAD (May 18); (4) AKIS/ISCAD<sup>164</sup> (June 1-2); (5) OTS (July 4); (6) International Agriculture University (December 2), etc.

## Energy

The available generating capacities in Uzbekistan amount to 12,900 MW, of which 11,000 MW (84.7%) – TPP; 1,850 MW – HPP (14.3%); and more than 133 MW 75 (1%) – station units and isolated stations<sup>165</sup>. The energy system capacity is expected to reach 25.6 thousand MW (thermal – 18.8 thousand MW, hydro - 2.5 thousand MW, and solar and wind – 4.3 thousand MW) by 2025 and 29.2 thousand MW (share of RES, including hydro, solar, and wind – 40.4%) by 2030.

In 2022, 74.3 billion kWh of electricity (71.3 billion kWh in 2021) was generated, including 66.6 billion kWh (65.6 billion kWh in 2021) by AO TEC. The electricity export was 2.7 billion kWh (2.15 billion kWh in 2021), while the import was 5.6 billion kWh (6.2 billion kWh in 2021). As forecasted, by 2030, the republican consumption will reach 120.8 billion kWh.

At year-end, 66.5 billion kWh of electricity was transported through the main power grids (growth rate compared to 2021 – 102.8%).

According to the Program<sup>166</sup> for modernization and reconstruction of power grids, power transformers were replaced at 9 substations, and the installed capacity was additionally increased by 1,241 MVA.

**Latest developments in legislation.** In line with the decree on implementation of the “Energy sector transformation and resilient transmission” project with the involvement of the World Bank (No.PP-113 of 03.02.2022), a resolution was approved on automation of the energy sector (No.68 of 10.02.2022).

Another resolution was adopted on 18.10.2022 (No.609) “On approval of the operational regulations of electric stations and grids in the Republic of Uzbekistan”.

**New appointments.** J.T.Mirzamakhmudov was appointed Minister of Energy (September 30).

**International cooperation.** The Government of Uzbekistan signed: (1) an intergovernmental MoU on energy cooperation with Azerbaijan (June 20); (2) a co-operation agreement with Saudi Arabia (August 18); (3) a MoU on further development of cooperation in the energy sector with Turkmenistan (October 24).

The following events were held: (1) 2<sup>nd</sup> meeting of Energy Ministers of the SCO member states (June 28); (2) 60<sup>th</sup> meeting of the CIS Electric Power Council (July 14); (3) meeting of the Ministers of Energy of Uzbekistan and Kazakhstan (February 26).

<sup>161</sup> in cooperation with the EU Agricultural Support and Knowledge Enhancement Program in the Ask Facility area

<sup>162</sup> organized by FAO under the “Capacity development for sustainable fisheries and aquaculture management in Central Asia, Azerbaijan and Turkey” project ( FISHCAP), part of the FAO-Turkey Food and Agriculture Partnership Program

<sup>163</sup> Agricultural Support and Knowledge Enhancement Program - EU Assistance Program for the Implementation of the “Agricultural Development Strategy of the Republic of Uzbekistan for 2020-2030”

<sup>164</sup> with the support of EU, FAO, UNDP and ASK Facility EU Program

<sup>165</sup> Concept for Electricity Supply in the Republic of Uzbekistan for 2020-2030

<sup>166</sup> approved by the decision of the Sole Shareholder of “Regional Power Grids” JSC of 30.06.2021 No.5

**Events.** The following events were organized: (1) 16<sup>th</sup> international exhibition “UzEnergyExpo-2022” (October 26-28); (2) 15<sup>th</sup> international exhibition “Energy, energy saving, nuclear energy, alternative energy sources – Power Uzbekistan 2022” (May 18-20); (3) Uzbekistan Energy Forum/UEF 2022 (June 23-24); (4) roundtable on international experience in developing a competitive wholesale electricity market and future plans of Uzbekistan in this area (October 14); (5) exhibition “Use of renewable energy sources in Uzbekistan and new opportunities” (July 28-29).

## Hydropower

76,550 million m<sup>3</sup> of water was used for hydropower generation<sup>167</sup>.

In Uzbekistan, the hydropower sector has 49 HPPs, particularly 14 large HPPs with a total capacity of 1.76 GW (86% of total hydropower capacity), 23 medium HPPs with a total capacity of 0.262 GW (13%), 9 small HPPs with a total capacity of 0.0285 GW (0.014%) and 3 micro HPPs with a total capacity of 0.86 MW (0.004%). 30 HPPs (532 MW) are run-of-river. 10 HPPs (1.4 GW) operate at reservoirs.

**Latest developments in legislation.** The Cabinet of Ministers of RUz adopted<sup>168</sup> a resolution for implementation of investment projects entitled “Construction of HPP cascade on the Big Andizhan Canal in Namanagan province” and “Construction of Zarchob-3 HPP on the Topalang River in Surkhandarya province” (No.534 of 28.09.2022).

**Hydropower construction and modernization.** In 2017-2022, AO Uzbekgidroenergo commissioned 12 new HPPs with a total capacity of 262.8 MW and modernized 16 operating power facilities. In accordance with the 2022-2026 Uzbekistan Development Strategy, 15 new HPPs with a total capacity of 868 MW will be built in the country and 5 operating HPPs will be modernized.

By the end of 2022: (1) construction of the 90-MW **Lower Chatkal HPP** was launched on the Chatkal River in Tashkent province; (2) construction of **Pskem HPP** is continued in Tashkent province; (3) **Farkhad HPP** was reconstructed in Syrdarya province. Modernization of 4 hydroelectric units resulted in the capacity of the HPP increased by 11.4% (from 114 to 127 MW); (4) **Topalang HPP** is modernized in Surkhandarya province. After installation of 2 units, the capacity of the HPP will be increased to 175 MW.

The Presidents of Uzbekistan and Tajikistan launched the construction of a 140-MW **Yavan HPP** on the Zeravshan River at an estimated cost of \$282 million. The HPP will generate 700-800 million kWh (June 2).

Within the framework of the Investment Program, AO Uzbekgidroenergo implemented 13 projects at a total cost of \$1.3 billion and a total capacity of 797 MW.

**Small hydropower.** It is planned to build 200 small HPPs at a total capacity of 56 MW in line with the Presidential Decree “On additional measures to introduce energy-saving technologies and develop renewable energy sources of small capacity” (No.UP-220 of 09.09.2022). 8 mini hydropower will be launched.

**Regional and international cooperation.** AO Uzbekgidroenergo signed: (1) a MoU with MACLEC technical project laboratory pvt. LTD (India) for manufacturing of generating units in Uzbekistan; (2) a MoU with K-Water Corporation for construction of Khojикent pumped storage (February 15); (3) an agreement with **Hydro4U** consortium to purchase equipment for a projected 2.2 MW small HPP in Fergana province (June 21).

**Events.** AO Uzbekgidroenergo had official meetings with ADB delegation, representatives of Toshiba and Itochu (Japan), WB, and AFD.

## Thermal power

**AO TEC** includes 6 TPPs, 3 CHPPs and 3 service companies. The installed capacity of TPPs is 11,932 MW (available capacity – 11,060 MW); 55.5 billion kWh of electricity and 5.35 million Gcal of thermal energy were generated in 2022. By 2030, it is planned to increase the total capacity of TPPs to 14.7 thousand MW<sup>169</sup>.

**Fitch Ratings** (USA) assessed the international indicative rating of AO TEC at BB- “Stable” and equated it to the sovereign rating of Ruz.

**Thermal power construction and modernization.** In 2022, 6 TPPs with a total capacity of 1,374 MW were launched: (1) 174-MW TPP in Khorezm province; (2) 270-MW gas-piston TPP in Bukhara province; (3) 220-MW TPP in Syrdarya province; (4) 240-MW combined cycle gas turbine, 230-MW gas-fired TPP and 240-MW TPP in Tashkent province.

The President launched the construction of the Surkhandarya TPP – the largest in the country with a capacity of 1.56 GW at \$1.2 billion.

Within the framework of the **projects** (1) “Construction of 2 new gas turbine units with a total capacity of 32 MW at Tashkent TPC JSC” (JICA), an annual production of 515.6 million kWh of electricity and 690.3 thousand Gcal of thermal energy was achieved; (2) “Expansion of Talimarjan TPP JSC with the construction of another combined cycle plant with a total capacity of at least 900 MW” (ADB/EBRD), it is planned to generate 7.2 billion kWh of electricity per year; (3) “Construction of the third combined cycle plant with a capacity of 650 MW at Navoiy TPP JSC” (JICA), an annual production of 4.9 billion kWh of electricity and 931.4 thousand Gcal of thermal energy was achieved.

<sup>167</sup> 11.8 m<sup>3</sup> of water is consumed to produce 1 kWh of electricity at HPPs

<sup>168</sup> within the framework of implementation of PP RUz No. PPP-44 “On additional measures to further develop hydropower” of 10.12.2021

<sup>169</sup> Concept of Electricity Supply in the Republic of Uzbekistan for 2020-2030

A resolution (No.PP-464 of 30.12.2022) was adopted for implementation of the “Construction of 1,573-MW combined cycle plant Bayaut district, Syrdarya province” investment project.

International cooperation. AO TEC cooperates with the General Electric (USA), Mitsubishi Corporation, Itochu (Japan), Hyundai (South Korea), Intecsa Ingeniera Industrial S.A. (Spain), AC Boilers S.p.A (Italy), Power Machines, Krasny Kotelshchik, Kaluga Turbine plant, Taganrog Boiler Building plant, Lenin-grad Metal plant (Russia), Çalik Enerji (Turkey), EBRD, Asia-Pacific Bank, JICA (Japan), China Development Bank (PRC).

**Alternative energy sources**

**Latest developments in legislation.** To promote energy-saving technologies and development of RES in Uzbekistan, a Presidential Decree (No.UP-220 of 09.09.2022) was adopted on “On additional measures to introduce energy-saving technologies and develop renewable energy sources of small capacity”. In pursuance of the Decree, the Cabinet of Ministers approved resolutions for acceleration of production of RES-based facilities (No.518 of 21.09.2022) and for support of local producers of RES installations and their customers (No.568 of 05.10.2022).

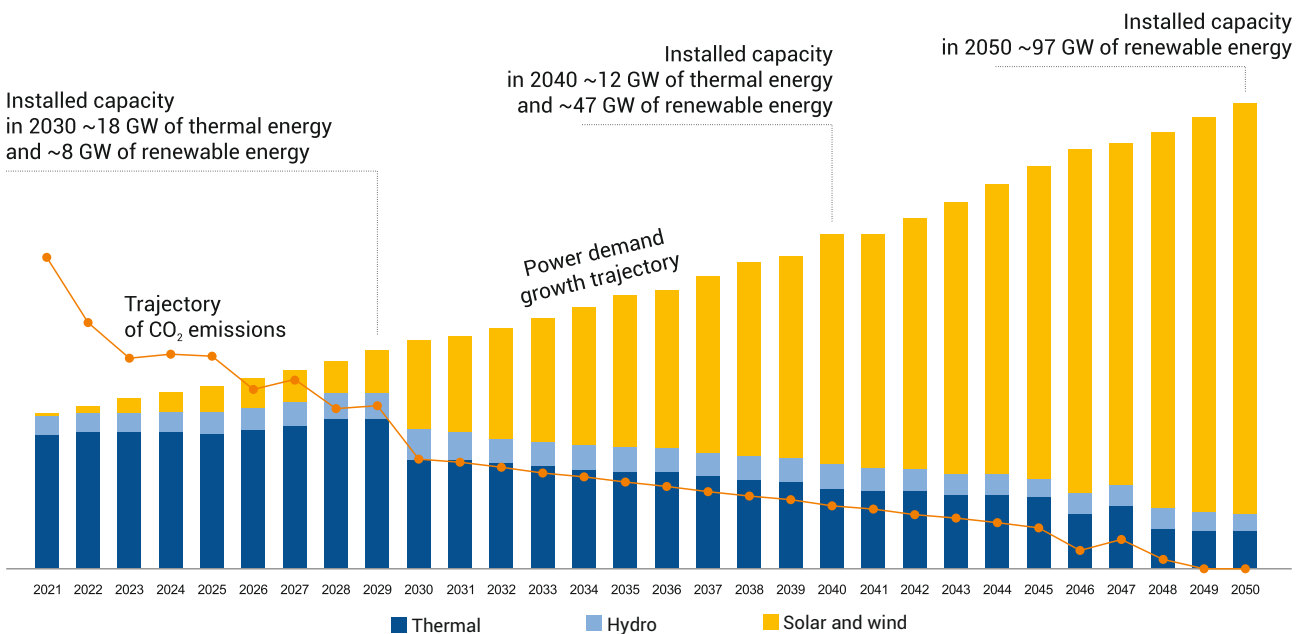
The **National Research Institute for Renewable Energy Sources** under the ME<sup>170</sup> and the Research Center for

Hydrogen Energy and the Laboratory for Testing and Certification of Renewable and Hydrogen Energy Technologies within its structure were established<sup>171</sup> (PKMRUZ No.127 of 24.03.2022).

A number of documents were approved: (1) Green Economy Transition and Green Growth Program in Uzbekistan until 2030; (2) Concept for transition to green economy and energy saving in industries; (3) Green Economy Transition and Green Growth Action Plan in the Republic of Uzbekistan until 2030; (4) Targets for fuel and energy resource saving in economic sectors for 2022-2026 (PP RUZ No.PP-436 of 02.12.2022): (1) reduce GHG emissions by 35% of the 2010 level; (2) increase RES up to 15 GW and bring their share in the total volume of electricity generation to 30% and more; (3) improve sectoral energy efficiency by at least 20%; (4) reduce energy intensity per unit of gross domestic product by 30%, including through increased use of RES; (5) improve water use efficiency in all sectors and introduce water-saving technologies on an area of up to 1 million ha; (6) expand urban green spaces to 30% or more by planting 200 million seedlings per year and bring their total number to 1 billion; (7) increase household waste recycling up to 65%, etc.

**Carbon neutrality action plan for the energy sector of Uzbekistan.** Uzbekistan aims to transit to carbon-neutral electricity generation by 2050.

**Evolution of the combination of electricity generation and CO<sub>2</sub> emissions under a carbon-neutral scenario**



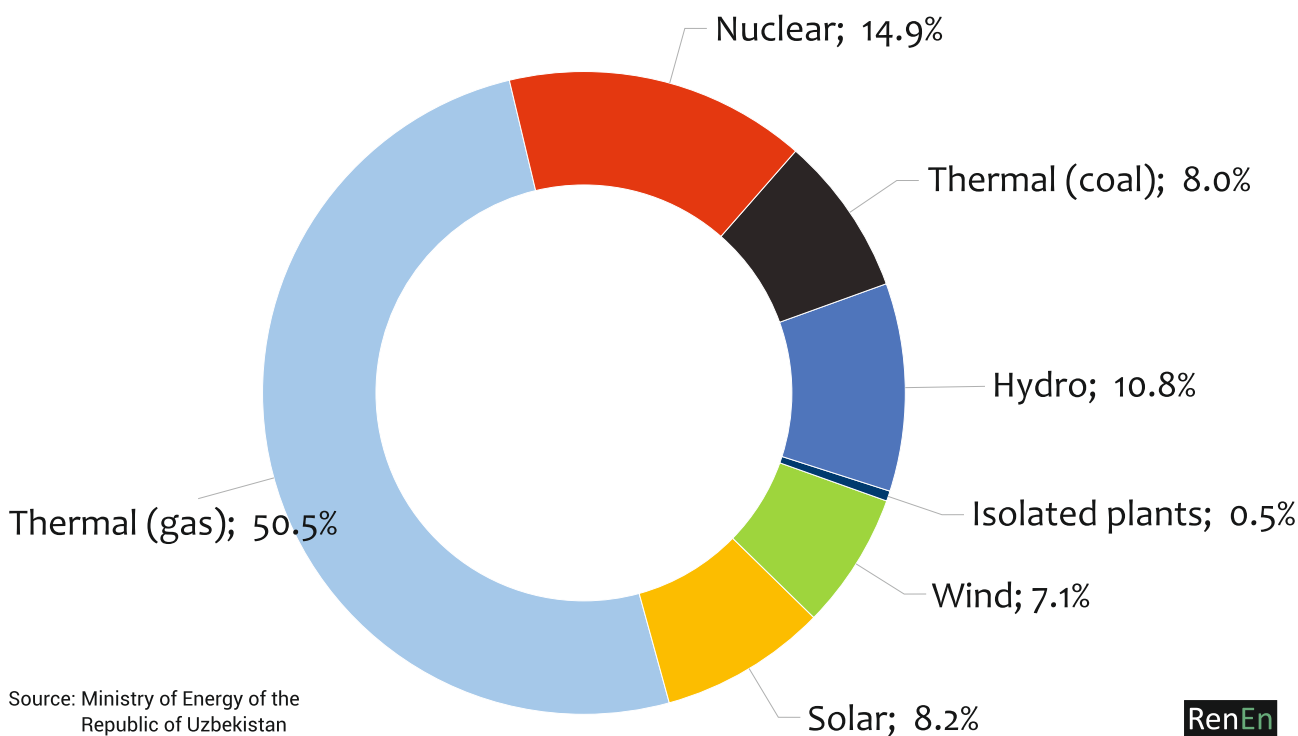
*Note:* capacities of TPPs include a nuclear power plant as presented in the 2020-2030 Concept of the Ministry of Energy

*Source:* Proceedings of the Conference “Achieving carbon neutrality and energy transition in Central Asia (Kazakhstan-2060 and Uzbekistan-2050)”, November 14-16, Almaty, <https://unece.org/sites/default/files/2022-11/EnergyTransition-CarbonNeutrality-Kz-Uzb-CA.pptx> (in Russian)

<sup>170</sup> on the basis of “International Solar Energy Institute” LLC of the Academy of Sciences

<sup>171</sup> according to the PP RUZ No.PP-5063 of 09.04.2021

Electricity generation structure in Uzbekistan in 2030



Source: Proceedings of the Conference “Achieving carbon neutrality and energy transition in Central Asia (Kazakhstan-2060 and Uzbekistan-2050)”, November 14-16, Almaty, <https://unece.org/sites/default/files/2022-11/EnergyTransition-CarbonNeutrality-Kz-Uzb-CA.pptx> (in Russian)

**Solar power.** Commissioned projects: (1) 100-MW plant to generate 260 million kWh per year in Samarkand province, (May 24); (2) 131-MW solar farm “Tutli” (Total Eren, France) to generate 270 thousand kWh per year, 100 km west of Samarkand.

By the end of 2023, 4 solar plants will be built and commissioned in: (1) Surkhandarya province – 456.6 MW; (2) Djizak province – 220 MW; (3) Samarkand province – 220 MW; (4) Navoiy province – 200 MW.

**Wind power.** A resolution was adopted (PP-169 of 18.03.2022) for the construction and operation of 100-MW wind power plant in Karauzyak district, Republic of Karakalpakstan in the format of PPP<sup>172</sup>.

The Masdar Company (UAE) signed agreements on financing construction of the first industrial 500-MW Zeravshan WPP<sup>173</sup> in Navoiy province (August 31).

Agreements were signed between the Government of Uzbekistan, the International Finance Corporation and EBRD on cooperation in the sphere of renewables (March).

**Environment and climate change**

**Latest developments in legislation.** A number of resolutions were adopted for the arrangement of protec-

ted natural territories (PP-131 of 16.02.2022, PKM 93 of 04.03.2022), enforcement of laws on nature protection in Djizak province (PP-226 of 27.04.2022), amendment and addition of the Regulations on state environmental monitoring (PKM 99 of 07.03.2022), improvement of performance of the Environmental and Nature Use Technology Research Institute (PKM 458 of 18.08.2022), etc.

**Strategies and programs.** Within the framework of the:

- Development Strategy of New Uzbekistan for 2022-2026, decrees and resolutions were adopted on priority measures for reformation of the waste management system (UP-189 of 11.08.2022), on organization of sanitation and cleaning service in settlements (PP-349 of 11.08.2022), on facilitation of transition to green economy (PP-436 of 02.12.2022), etc.

- Concept for Environmental Protection until 2030, provisions on Green Gardens and Green Parks were approved (PKM 529 of 27.09.2022).

**The Aral Sea region.** In 2022, the government adopted resolutions for afforestation of the dried bed of the Aral Sea and in the Aral Sea region and for formation of the Borsakelmas state reserve in the Republic of Karakalpakstan.

<sup>172</sup> project cost – \$107.8 million

<sup>173</sup> construction project won the PFI Awards as the CA deal of the year



For implementation of the tasks defined in the Special Resolution<sup>174</sup> “On declaring the Aral Sea region a zone of ecological innovation and technologies”, decisions were made to take additional measures to transform the Aral Sea region into a zone of ecological innovations and technologies (PKM 41 of 25.01.2022) and to implement the UNDP-GEF project “Conservation and sustainable management of lakes, wetlands, and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods”. An agreement was signed with ADB on financing the project “Climate adaptive water resources management in the Aral Sea Basin sector” (June 24).

**MPHSTF for the Aral Sea Region.** In 2022, Uzbekistan contributed \$1.5 million and Germany – €700 thousand to the Aral Sea region.

The EU delegation visited the MPHSTF's project sites (April 30, Nukus, Karakalpakstan). The MPHSTF beneficiaries took part in a picture exhibition “Expanding the opportunities of youth: Uzbekistan's youth in European Union Cooperation” (May 19, Tashkent).

MPHSTF continued projects aimed at ensuring access to drinking water, supporting innovative youth initiatives in agriculture, etc. See “United Nations and its Specialized Agencies”.

As part of the “Sustainable natural resource and forest management in key mountainous areas important for globally significant biodiversity” project, (1) SMART patrol system for snow leopards was tested in the Chatkal State Biosphere Reserve and Gissar State Reserve; (2) training workshops were held on business planning, tourism and gardening (May-June); (3) forest restoration activities were carried out on 2,436 ha of degraded highland forests; (4) final meeting of the Coordination Council of the joint project was held (November 30, Tashkent). The Upper Tupalang National Nature Park was established on 27,851 ha in Surkhandarya province.

As part of the “Green rehabilitation Investment Project for Karakalpakstan Republic to address impacts of the Aral Sea crisis” (KOICA/GGGI) project, the GGGI office in Uzbekistan organized technical consultations (April 12 and June 14, Nukus; June 22, Tashkent). The (1) “Green Recovery Investment Analysis: Climate-Resilient Agriculture in the Republic of Karakalpakstan”; (2) “Climate Resilient Green Growth Assessment: for the Republic of Karakalpakstan”; (3) “Agriculture Sector in Uzbekistan and Karakalpakstan: Legal & Political Framework Review”; (4) “2022 Karakalpakstan Agriculture Risk Profile for Cli-

mate Resilience Capacity Development” were developed.

**International and regional cooperation.** The Global Green Growth Institute (GGGI<sup>175</sup>) opened its office in Tashkent (February 22). GGGI signed: a MoU on cooperation in the area of green growth and climate change with the ICSD (February 24); a Joint Declaration of Intentions with the UN in the face of Resident Coordinator in Uzbekistan (March 30).

Agreements were signed: between the Uzbek State Committee for Ecology<sup>176</sup> and GIZ on the “Climate risk management in Central Asia”<sup>177</sup> project (August 11, Tashkent); between the Uzbek Government and EBRD on the “Rehabilitation of domestic waste landfills and construction of new landfills in the Republic of Karakalpakstan and Khorezm province” project<sup>178</sup> (March 25, Tashkent) and on a grant project in support of Uzbekistan's efforts in rehabilitating the Chorkesar and Yangiabad special landfills (September 1, London, UK).

The Uzbek State Committee for Ecology held meetings with the: (1) Committee on Environmental Protection of Tajikistan (May 25, Tashkent); (2) Committee for Environmental Regulation and Control of Kazakhstan (May 26, Tashkent); (3) Ministry of Environmental Protection of Israel (June 15, online). The 3<sup>rd</sup> meeting of the Uzbek-Russian working group on the Agreement between the environmental agencies of Uzbekistan and the Russian Federation on environmental cooperation was held online on December 13.

**Events.** In 2022, the “green cover” was formed of saxaul and other desert plants on 107 thousand ha of the dried bed of the Aral Sea. With the support of the local population, a stock of 590.3 t of desert plant seeds was made. Plant nurseries were arranged on 100 ha. The nationwide “Green land” project is under implementation.

The Embassy of Uzbekistan in the United States organized a charity reception in support of the Aral Sea region (December 15, Washington, D.C., USA).

The following events were held: (1) scientific and practical seminar “Protection of land resources” (April 22, Tashkent, Uzbekistan); (2) session “Solution of environmental problems” of the 3<sup>rd</sup> International Rating Forum (May 7, Tashkent); (3) Plenum of the Central Council of the Ecological Party of Uzbekistan (May 21, Tashkent); (4) 3<sup>rd</sup> meeting of the Environment Ministers of the SCO member states (May 27, Tashkent); (5) international conference “Enhancing environmental culture of youth for sustainable development: domestic and foreign experience” (August 19,

<sup>174</sup> Resolution A/75/L.83 adopted at the 66<sup>th</sup> plenary meeting of the 75<sup>th</sup> session of the UNGA on May 18, 2021, New York

<sup>175</sup> an international intergovernmental organization headquartered in Seoul, established on June 20, 2012 in Rio de Janeiro, Brazil, in the framework of the United Nations Conference on Sustainable Development

<sup>176</sup> Decree of the Uzbek President No.UP-269 “On measures to implement the administrative reforms of new Uzbekistan” of 21.12.2022, the Ministry of Natural Resources of the Republic of Uzbekistan is formed on the basis of the State Committee of the Republic of Uzbekistan on Ecology and Environmental Protection

<sup>177</sup> the project (BMZ, €10 million, 2022-2026) developed under the “Green Central Asia” initiative

<sup>178</sup> the document was signed within the framework of the 1<sup>st</sup> Tashkent International Investment Forum (March 24-26)

Tashkent); (6) campaign on the World Cleanup Day<sup>179</sup> (September 17, Tashkent); (7) session<sup>180</sup> "Climate change and the need to transit to a green economy" (November 4, Samarkand).

The delegation of Uzbekistan participated in a number of big international events, including **UNEA-5** (February 28-March 2, Nairobi, Kenya), "**Stockholm+50: a healthy planet for the prosperity of all – our responsibility, our opportunity**" (June 2-3, Stockholm, Sweden), Climate Change Conference (November 7-18, Sharm el Sheikh), 15<sup>th</sup> UN Biodiversity Conference (December 7-19, Montreal, Canada), etc.

## SDG in Uzbekistan

The country continued implementing the **UN Sustainable Development Cooperation Framework 2021-2025**<sup>181</sup>.

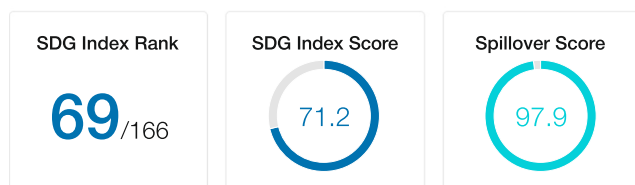
The Resolution of the Uzbek Cabinet of Ministers No.83 "On additional measures to accelerate the implementation of national goals and objectives of sustainable development for the period up to 2030" of 21.02.2022 approved national goals and objectives for the period up to 2030 and the Plan of measures for 2022-2026.

# Uzbekistan

Eastern Europe and Central Asia



OVERVIEW INDICATORS



## SDG Dashboards and Trends



**Dashboards:** ● SDG achieved ● Challenges remain ● Significant challenges remain ● Major challenges remain ● Information unavailable  
**Trends:** ↑ On track or maintaining SDG achievement ↗ Moderately improving → Stagnating ↓ Decreasing ●● Trend information unavailable

Source: <https://dashboards.sdindex.org/profiles/uzbekistan>

Uzbekistan was ranked 69 of 166 countries in the **annual ranking of sustainable development**.

A Resolution was adopted (No.2816-IV of 29.12.2022) for strengthening the role of parliaments in accelerating the achievement of the Sustainable Development Goals. This document approved a Roadmap outlining 57 concrete measures in 13 areas.

The Government of Uzbekistan, with the support of the UNDP, developed and published the **SDG Bond Allocation and Impact report**, which provides information on how the proceeds from the bond issuance are helping to achieve the Government's development priorities and highlights Uzbekistan's commitment to achieve the SDGs.

<sup>179</sup> [WorldCleanUpDayUzb2022](https://www.wcd.org/)

<sup>180</sup> within the framework of the 2<sup>nd</sup> Economic Forum of Uzbekistan (November 3-4, Samarkand)

<sup>181</sup> approved by the Government of RUZ and UN in Uzbekistan on 24.10.2020

A joint meeting of the Chambers of Oliy Majlis on the implementation of the SDGs (October 26, Tashkent) and a roundtable “Human development and prospects for achieving the Sustainable Development Goals in Uzbekistan” (November 1, Tashkent) were held.

The delegation of Uzbekistan participated in the [UNECE Regional Forum on Sustainable Development 2022](#) (April 7, online), High-level Political Forum on Sustainable Development ([July 5-15](#), New York, USA), 6<sup>th</sup> North and Central Asia Multi-Stakeholder Forum on Implementation of the Sustainable Development Goals ([October 6-7](#), Almaty, Kazakhstan).

## Emergencies

**Latest developments in legislation.** (1) Law “On protection of population and territories from natural and anthropogenic emergencies” (ZRU-790 of 17.08.2022), under which (a) emergencies, depending on the source, may be of natural and man-made nature; (b) citizens are provided with free medical care, compensation and other benefits for work in emergency zones; (c) concealment, late submission or submission of false information as concerns emergency situations is not allowed; (2) resolution “On measures to protect the population and territories from emergencies related to hazardous hydrometeorological phenomena and geological processes” (PP-426 of 18.11.2022), which establishes the procedure for protecting the population and territories from floods and other emergencies.

**Strategies and programs.** Implementation<sup>182</sup> of the 2022-2030 Strategy for Development of Cooperation among the Central Asia Countries in DRR was started<sup>183</sup>. The Uzbekistani delegation participated in the meeting of the working group (experts) of the Regional forum-meeting of the Heads of Emergency Authorities of the CA countries<sup>184</sup>, where [trainings](#) in monitoring of implementation of the Sendai Framework Program on DRR were held for representatives of public authorities in the CA countries ([October 5](#), Dushanbe, Tajikistan).

**Natural disasters.** Due to heavy precipitation in spring, 15 floods and landslide events registered in several provinces of Uzbekistan damaged main and internal roads and bridges, houses, flooded home-stead plots and crops, caused death of people and hundred heads of livestock.

**Preventive measures.** The Ministry of Emergency Situations (MES) organized: (1) 172 tactical and special exercises on cleaning riverbeds, mountain streams, and canals, strengthening their banks, and constructing embankments; (2) preventive and precautionary

measures among the population living in hydrometeorologically and geologically hazardous areas; (3) emergency prevention and civil protection month (May). Provincial divisions of the MES were equipped with 15 sets of automated warning system.

**Regional cooperation.** The Agreement approved between the Governments of Uzbekistan and Kazakhstan on cooperation in prevention and elimination of emergencies<sup>185</sup> (PP-248 of 18.05.2022) provides for “...organization and monitoring of hazardous man-made and natural processes and phenomena; regular exchange of information on monitoring and forecasting of natural and man-made emergencies...”, etc.

The Ministers of Emergency Situations of Uzbekistan and Belarus signed the 2023-2024 Action Plan for Cooperation (October 1, Samarkand).

**Events.** The MES took part in the: (1) 7<sup>th</sup> session of the Global Platform for Disaster Risk Reduction (Bali, Indonesia); (2) regional consultation workshop on climate change and security in CA ([July 13-14](#), Almaty, Kazakhstan); (3) [Regional Forum – Meetings of Heads of Emergency Authorities of Central Asian Countries](#) (October 4-6, Dushanbe, Tajikistan); (4) summit of the Heads of Emergency Authorities of the Organization of Turkic States (21 December, Ankara, Turkey).

The following events were hosted: (1) training seminar for the heads of Expertise Departments at the Emergency Situations Directorate (May 26-27, Tashkent, Uzbekistan); (2) roundtable at the Research Institute of Fire Safety and Emergency Situations at the MES (August 30, Tashkent); (3) training seminar on emergencies in the water sector (October 17).

## Foreign Policy and International Cooperation

In 2022, the President of Uzbekistan paid [official and working visits](#) to China ([February](#)), Pakistan ([March](#)), UAE ([May](#)), Kyrgyzstan ([July](#)), Hungary ([October](#)), Russian Federation ([October](#), [December](#)), Kazakhstan ([October 12](#), [October 27](#)), Turkmenistan ([October](#)), and France ([November](#)).

The country [was visited](#) by: the Presidents of Turkey ([March](#)), Tajikistan ([June](#)), Azerbaijan ([June](#)), Turkmenistan ([July](#)), Kazakhstan ([December](#)); the delegations from IRI ([March](#), [July](#)), Russian Federation ([March](#), [April](#), [October](#), [November](#)), Kingdom of Saudi Arabia ([March](#), [September](#), [December](#)), UAE ([March](#), [June](#)), USA ([June](#), [August](#)), PRC ([July](#)), Germany ([November](#)); the Prime Ministers from Kazakhstan ([February](#)), Belarus ([April](#)), Georgia ([July](#)); the Foreign Ministers from Japan ([April](#)), Poland

<sup>182</sup> according to the “Strategy for Achieving the Goals of the Sendai Framework for Disaster Risk Reduction in 2015-2030 in the Republic of Uzbekistan” (PKM RUz No.299 of 12.04.2019). The 3<sup>rd</sup> World Conference adopted the Sendai Framework on March 18, 2015, in Sendai, Japan

<sup>183</sup> approved by the regional forum – meeting of Heads of Emergency Authorities of the Central Asian countries by the Minutes of 05.11.2021

<sup>184</sup> under the UNDRR Initiative “Strengthening disaster resilience and accelerating implementation of Sendai Framework for Disaster Risk Reduction in Central Asia” funded by the EU

<sup>185</sup> signed during the state visit of the President of Uzbekistan to Kazakhstan on December 6, 2021 (Nur-Sultan). The Agreement was ratified by the Parliament of Kazakhstan (Law of RK No.169-VII ZRK of 28.12.2022)

(June); Head of the UN Counter-Terrorism Office (March), ADB President (March), SCO Secretary General (May), OSCE Chairperson-in-Office (June), first deputy UN Secretary General (June), WB delegation (September), EU President (October), EBRD President (November), OSCE Secretary General (November), and many others.

**Key developments in the foreign policy of Uzbekistan in 2022.** The aim of the republican foreign policy is to ensure dynamic and sustainable political, socio-economic, secular and democratic development of Uzbekistan. The most important objective is enhancing good neighborly relations and strategic partnerships, first, with the CA countries. The Development Strategy of New Uzbekistan for 2022-2026<sup>186</sup> sets the following goals: (1) Goal 93: Increase the role of the country as an equitable international entity; (2) Goal 94: Elevate to the highest level the close cooperation in Central Asia in security, trade and economic, water, energy, transport and cultural and humanitarian spheres; (3) Goal 95: To further develop relations with our traditional partners, strengthen economic diplomacy, and prioritize expanding the geography of our foreign relations; (4) Goal 96: Strengthen the activities of Uzbekistan in the framework of United Nations bodies and institutions, global and regional economic, financial and humanitarian organizations; (5) Goal 97: Achieve World Trade Organization membership and deepen integration processes with the Eurasian Economic Union; (6) Goal 99: Improve the regulatory framework of foreign policy and foreign economic activity, as well as the legal framework of international cooperation.

The Uzbek President delivered speeches at the: (1) 1<sup>st</sup> India-Central Asia Summit (January 27, online), where the *Delhi Declaration* was approved; (2) a high-level dialogue on global development in the "BRICS+" format (June 24, online); (3) 4<sup>th</sup> Consultative Meeting of the Heads of States of Central Asia (July 21, Cholpon-Ata, Kyrgyzstan); (4) 6<sup>th</sup> Summit of the Conference on Interaction and Confidence Building Measures in Asia (October 13, Astana, Kazakhstan); (5) meeting of heads of delegations in the "Central Asia-EU" format (October 27, Astana, Kazakhstan).

**Development of alliances and strategic partnerships.** In October, Sh. Mirziyoyev paid an official visit to Turkmenistan, where priority areas of cooperation in water management and environmental protection, prevention and elimination of emergency situations were identified and a number of documents were signed at the level of governments, ministries and departments of the two countries. See "*Bilateral Water Cooperation between the Countries of Central Asia*".

As a member of **CIS**, Uzbekistan took part in meetings of the Council of Heads of CIS States (October 14, Astana), Council of Heads of Government (May 20, online; October 28, Astana), Council of Foreign Ministers (May 13, Dushanbe; October 12, Astana), Economic Council (December 2, September 23, June 10,

March 18), 1<sup>st</sup> Dialogue of Women of Central Asian States and Russia (May 14, Ashkhabad), as well as in informal Summits of the Heads of CIS States (October 7, December 26, Saint Petersburg) and in the EAEU meeting in the status of an observer country (December 9, Bishkek).

**Chairmanship in international organizations.** In 2022, Uzbekistan held the chairmanship of the:

**SCO.** More than 80 events were organized, including the 21<sup>st</sup> meeting of the Council of Heads of the SCO member states. A package of documents was signed, incl.: (1) *Samarkand Declaration*; (2) Statement on Addressing Climate Change; (3) Statement on Ensuring Global Food Security; (4) Statement on Ensuring Global Energy Security (September 15-16, Samarkand).

The Samarkand Declaration noted that the member states: (a) "... emphasize the need to increase mutually beneficial cooperation in energy, ... support the use of economically viable and environmentally friendly technologies that mitigate the negative impact on the environment and contribute to energy security and the transition to cleaner and environmentally friendly energy sources in an energy efficient economy..."; (b) "... stressed their commitment to building a sustainable economic system, also by promoting green and environmentally friendly technologies..."; (c) "... note the importance of cooperation in environmental protection, environmental safety, prevention of the negative consequences of climate change, conservation and use of biodiversity, as well as the exchange of experience and operational information on these matters...".



Uzbekistan participated in the: (1) 21<sup>st</sup> meeting of the Council of Heads of Government of the SCO member states (November 1, online); (2) roundtable "SCO 2022: steering for new development goals" (February 22, Dushanbe, Tajikistan); (3) meetings of the Council of National Coordinators (January 25-28, June 14-17, Tashkent; April 25-28, Fergana; October 17-20, New

<sup>186</sup> approved by the Decree of the Uzbek President No.UP-60 of 28.01.2022

Delhi, India); (4) 17<sup>th</sup> Meeting of the Security Council Secretaries (August 19, Tashkent); (5) meeting of the Council of Foreign Ministers (July 28-29, Tashkent).

**ECO.** A number of events were organized, including: 4<sup>th</sup> ECO Experts Group meeting on RES (April 27, online); 7<sup>th</sup> meeting of the Ministers of Agriculture of the ECO countries (July 5-6, Tashkent). On the initiative of the President of Uzbekistan, 2022<sup>187</sup> was declared the “Year of Strengthening Connectivity” in ECO.

**OTS.** The 9<sup>th</sup> OTS Summit was held under the leadership of the President of Uzbekistan. The Heads of State approved the [Samarkand Declaration](#) and signed a number of documents. The Chairmanship of the Organization was handed over to Uzbekistan ([November 11](#), Samarkand).

Uzbekistan hosted: (1) 2<sup>nd</sup> meeting of the Working Group on Agricultural Cooperation of the Organization of Turkic States (July 3-6, Tashkent); (2) 1<sup>st</sup> meeting of the ministers of agriculture of the Turkic States ([July 4](#), Tashkent); (3) 1<sup>st</sup> Turkic Agro-Forum ([July 4](#), Tashkent).

#### Promotion of the national interests and reinforcement of the country's image

Uzbekistan celebrated 30 years of UN membership in 2022. Uzbekistan initiated the resolutions on “Strengthening connectivity between Central and South Asia”<sup>188</sup>, “Youth and human rights”<sup>189</sup>, “Enhancing the role of parliaments in accelerating the achievement of the Sustainable Development Goals”<sup>190</sup>.

Documents prepared by the Uzbekistani side and recognized as official UNGA documents include the Bukhara Declaration<sup>191</sup>, Tashkent Declaration<sup>192</sup>, and [Samarkand SCO Summit: Solidarity for Common Security and Prosperity](#).

The Uzbek Minister of Foreign Affairs speaking at the 77<sup>th</sup> session of the UNGA noted: “...We stand ready to actively participate in the multilateral efforts to promote the topical issues of the green agenda and curb climate change processes. Uzbekistan has taken on an additional obligation to reduce greenhouse gas emissions under the Paris Agreement and is implementing a comprehensive strategy for the transition to a green economy and the development of renewable energy... We will host the 14<sup>th</sup> Conference of the Parties to the UN Convention on the Conservation of Migratory Species of Wild Animals, as well as a meeting of the Committee to Review the Implementation of the UN Convention to Combat Desertification in Uzbekistan...” ([September 24](#), New York).

Uzbekistan was elected a member of the Commission on Science and Technology for Development for 2023-2026 (April 13, ECOSOC meeting) and became the member of the UN Committee on the Peaceful Uses of Outer Space (COPUOS)<sup>193</sup>.

Uzbekistan participated in the: (1) 49<sup>th</sup> session of the UN Human Rights Council (February 28, Geneva, Switzerland); (2) 66<sup>th</sup> session of the UN Commission on the Status of Women (March 14-25, New York, USA); (3) UN Ministerial conference on humanitarian commitments in Afghanistan (March 31, online); (4) 78<sup>th</sup> session of ESCAP (May 23-27, Bangkok, Thailand); (5) 7<sup>th</sup> annual session of the UNECE Steering Committee on Trade Capacity and Standards (June 27-28, Geneva, Switzerland); (6) UN Summit on Transforming Education (September 16-19, New York, USA); (7) Bazaar 2022 Festival under the UN auspices (November 22, Geneva, Switzerland).

**Events.** Uzbekistan hosted: (1) the international conference “Afghanistan: security and economic development” (July 26); (2) the 1<sup>st</sup> Tashkent international investment forum ([March 24](#)); (3) the international week of innovative ideas “InnoWeek.Uz-2022” (October 17-21); (4) “ICT Week Uzbekistan-2022” (October 24-27).

#### Sources

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<http://kun.uz/>; <http://www.uzdaily.ru/>

<sup>187</sup> the year 2023 will be the Year of Green Transition and Interconnectivity under the presidency of Azerbaijan

<sup>188</sup> 93<sup>rd</sup> Plenary Meeting of the 76<sup>th</sup> session of the UNGA, July 11, 2022

<sup>189</sup> 51<sup>st</sup> session of the UN Human Rights Council (HRC, October 6, 2022. Uzbekistan elected as a member of the HRC for 2021-2023 at the 74<sup>th</sup> session of the UNGA on October 17, 2019)

<sup>190</sup> 53<sup>rd</sup> Plenary Meeting of the 77<sup>th</sup> session of the UNGA, December 14, 2022

<sup>191</sup> Declaration of the International Forum “Dialogue of Declarations”, May 16-17, Tashkent

<sup>192</sup> Declaration of the international high-level conference “Regional cooperation among the Central Asian countries within the framework of the Joint Plan of Action (JPOA) for the Implementation of the United Nations Global Counter-Terrorism Strategy” ([March 3-4](#), Tashkent)

<sup>193</sup> a special UN committee whose main task is to review and foster international cooperation in the peaceful uses of outer space, as well as to consider legal issues arising from the exploration of outer space