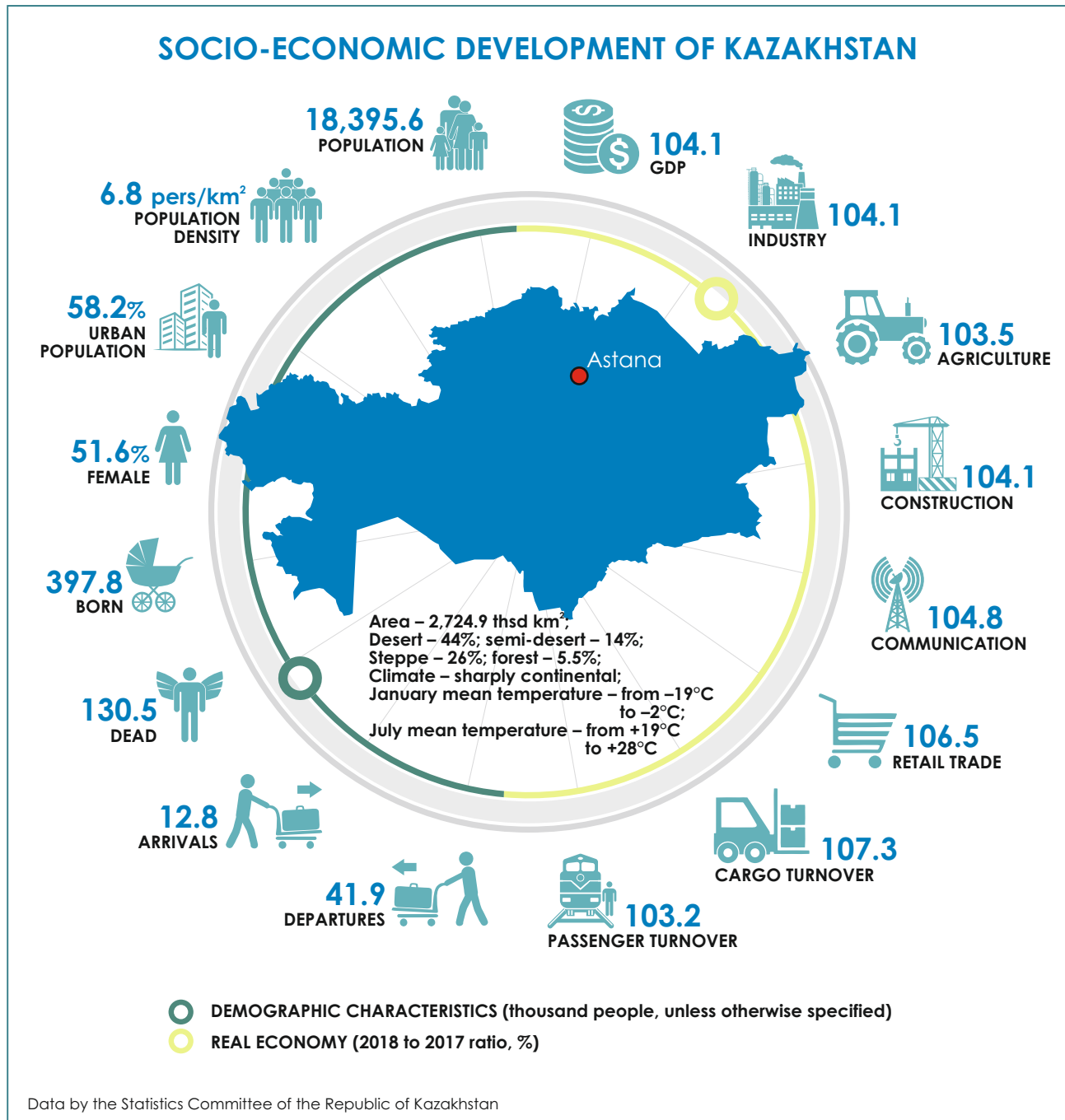




Section 5

Key Water Developments
in the Countries
of Central Asia

5.1. Kazakhstan



General Information

Water resources. Due to its geographical location, water resources in Kazakhstan are distributed unevenly. There are 8,500 rivers in the country, and the major ones are Irtysh, Ishim, Ural, Syr Darya, Ili, Chu, Tobol, etc. Glaciers are the main sources of rivers. There are 48,000 large and small lakes. The major lakes are the Caspian Sea and the Aral Sea. Balkhash, Zaisan, and Alakol are the largest lakes.

The unit water supply in Kazakhstan is 37,000 m³/km² or 6,000 m³ per capita a year. The total river water resources are 101 km³, of which 57 km³ are formed on the territory of Kazakhstan. The rest of the water is coming from neighboring countries: Russia – 8 km³; China – 19 km³; Uzbekistan – 15 km³; and Kyrgyzstan – 3 km³.

Water resources management is implemented by the Committee for Water Resources of the Ministry of Agriculture of the Republic of Kazakhstan.

The territorial sub-divisions administered by the Committee for Water Resources of the Ministry of Agriculture of the Republic of Kazakhstan include:

1. Republican State Agency "Aralo-Syr Darya basin inspection on water use regulation and protection";
2. Republican State Agency "Balkhash-Alakol basin inspection on water use regulation and protection";
3. Republican State Agency "Yertisky basin inspection on water use regulation and protection";
4. Republican State Agency "Esil basin inspection on water use regulation and protection";
5. Republican State Agency "Nura-Sarysus basin inspection on water use regulation and protection";
6. Republican State Agency "Tobol-Turgai basin inspection on water use regulation and protection";
7. Republican State Agency "Zhayyk-Caspian basin inspection on water use regulation and protection";
8. Republican State Agency "Shu-Talas basin inspection on water use regulation and protection".

Latest Developments in Legislation and Public Administration

Amendments to Land Regulation. The Parliament of Kazakhstan has approved the amendments to the legislation on land regulation in the second reading. The maximum sizes of agricultural lands which can be given in lease to Kazakh people have been established. According to the new amendments, foreign companies and individuals will have no rights to lease a piece of agricultural land even for a temporary use. Kazakhstan enterprises will have no right to lease a piece of agricultural land if they have even minimum percentage of foreign share. Agricultural lands will be provided on a competition basis only. Also, a new procedure on withdrawal of land for state use is stipulated.

The Government of Kazakhstan has adopted a Resolution on denunciation of some

international agreements (PP RK 373 of 22 June 2018) between the Governments of Kazakhstan and Kyrgyzstan; and also between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan on using of fuel and water and energy resources of the Naryn-Syrdarya reservoir cascade.

Amendments have been made to the administrative and territorial structure of South Kazakhstan province (SKP). As a result, at present, it embraces a newly created Zhetysai district with the administrative center of Zhetysai city; Maktaral district with the administrative center in Myrzakent settlement through division of Maktaaral district of SKP; Saryagashskiy district with the city of Saryagash as an administrative center, and Kelesskiy district with the administrative center in Abbay settlement through division of Saryagash district of SKP.

Water Sector

Practical work under the second phase of the "Syr Darya Control and the Northern Aral Sea Project" has been started. The Project will be implemented in two stages for the state budget funds and the WB loan. As a result of the Project, it is expected that socio-economic development and living standards of population (especially, in rural areas) will be improved; and the Northern Aral Sea will have more water inflow through the reduction of losses caused by poor conditions of irrigated land.

Reconstruction of the Arnasay dam has been completed. Previously, excessive water was discharged into the Arnasay depression through the dam. The dam is located in the south of the Shardara reservoir and now blocks the Arnasay depression. Construction of 36-kilometre dam and road made it possible to connect Shardara and Maktaaral districts.

In Mangistau province, farmers are moving towards drip irrigation systems; 30% of its equipment cost is subsidized by the state. By 2021, it is expected that all farms in the province will use drip irrigation. In Shardara district of Turkestan province, drip irrigation will allow doubling cotton production, which was 28.4 centner/ha on average in 2017. In total, as of 15 August, the area of the republic where water-saving irrigation technologies are used was 183.4 thousand ha (drip irrigation - 82.85 thousand ha, sprinkling - 100.53 thousand ha) or 12.7% of all irrigated area.

Floods

287 houses were flooded in Eastern Kazakhstan province in March as a result of ice melting on the Irtysh and the Syr Darya rivers. More than 600 plots of land have been damaged by high water. Based on approximate calculations, floods in the province have caused losses for the amount of 3.2 billion tenge.

In February, in Northern Kazakhstan province 127 settlements were at risk of waterlogging. This waterlogging was mainly caused by failure to pass excess water through pipes (culverts) during ice melting. Media reported that 600 million tenge have been provided for prevention of emergencies.

In Western Kazakhstan province, 1.3 billion tenge have been allocated to mitigate consequences of emergencies caused by spring flooding. Near Peremetnoe settlement of Zelenov district, the dam, which was restored in 2017, has collapsed. Under the warranty commitments, the contractor was legally obliged to restore the dam. Based on the data of the Emergency Committee of the Ministry of Internal Affairs of the RK, six districts of Almaty province were flooded by melt water. More than 300 homesteads were damaged and some districts declared the state of emergency. About 1,000 people were evacuated. More than 1 billion of tenge was allocated for flood management activities, as well as for construction of trenches, canals, ditches, drainage systems and purchasing of equipment and machines.

In February in **Kyzylorda province**, the Syr Darya broke a protection embankment. As a result, more than 2,000 ha of agricultural land used for growing rice (500 ha) and as pastures and hayfields was flooded.

Agriculture

Based on the data of the Kazakh Ministry of Agriculture, in 2018 the total crop area in the country amounted to 22 million ha. It is 170,000 ha or 0.6% more than in 2017. 22 million tonnes of grain have been collected considering the crop productivity of 15.1 centner/ha. This is 759.9 ton or 3.4% more than the last year. For 11 months, the agricultural production has been increased by 2.9%; the growth in cattle breeding has reached 3.9%; and that of crop production has reached 2.3%. Export of agricultural products from January to September was more than \$2 billion, including processed

products for the amount of \$780 million. 17,500 tons of beef (given the plan of 15,000 tons) were exported for the period of 11 months. In general, the amount of attracted investments is increasing. For the period of 10 months, the amount of the attracted investments was 18.4% in agriculture capital assets and 33.7% in food production.

With the systemic measures, the mechanisms and sizes of **state support** are developing and increasing. Based on the request of the Head of State, annually, not less than 100 billion tenge will be allocated additionally for the State Program. Also, 200 billion tenge will be provided for resolution of issues related to affordable lending under the priority agroindustry projects. Thus, the size of state support will be doubled.

In 2018, the Ministry of Agriculture of the RK renewed **subsidizing** of interest rates under the fixed assets loans, as well as the agricultural equipment and livestock leasing. As a result, for the period of 10 months, 2,752 pieces of equipment for the amount of 50 billion tenge have been leased out. As an example, in 2017 the leased out equipment amounted to 40.2 billion tenge, which is 19.8% less than in 2018. On the whole, in 2018 about 60 billion tenge were allocated for implementation of leasing projects.

According to the Ministry of National Economy of the RK, from January to November 2018 **gross production of agriculture, forestry and fishery** amounted to 4,167.6 billion tenge, which is 2.9% more than in the same period in 2017.

Mahambet district of Atyrau province started to grow green mass for cows using the hydroponics system. The system will allow producing approximately 10 tons of green mass a day. The green mass is generated from barley, which is grown under the certain temperature using the hydroponic method allowing increasing the barley mass 14 times. Farmers say that milk production increases by one third after feeding the cattle with this green mass.

It is planned to **reduce the number of research institutes which belong to agro-industrial complex** in Kazakhstan. As Mr. A. Evniev, the Vice-Minister of Agriculture of the RK said, the number of research institutes should be reduced, following the example of international practice where knowledge hubs are more popular.

To improve the quality of agricultural education, the standards of world's leading universities are introduced in three agricultural universities

based on the example of the Nazarbaev University. At the same time, franchises of international universities are attracted. Cooperation with the Netherlands' Wageningen University, as well as the American University of California-Davis and the Chinese Zhejiang University was started. On an annual basis, more than 100 students are to be graduated under the franchise program with international universities.

Energy

New hydropower stations are built in Kazakhstan. In summer 2018, the construction of new biggest 18 MW HPP consisting of 5 small stations was started in Zhualy district of Zhambyl province. The HPP will have modern Austrian equipment and the whole process of work will be totally automated. The station will be put into operation in the first quarter of 2019.

Renewable energy is getting more popular in Kazakhstan. Solar power station (SPS) "Burnoe", the biggest SPS in CIS, with the capacity of 100 megawatt, was built together with the British partners in Zhambyl province. A solar power station with the capacity of 1 megawatt and a wind power mill with the capacity of 5 megawatt have been put into operation in Almaty. The first project of the SPS which uses locally produced solar panels (Astana Solar company) was built on 36.05 ha (capacity – 2 MW) in the Batyr village of Munalinskiy district, Mangistausk province. As part of the program on watering of pastures, implemented in Kazakhstan upon the request of the Head of State, at present, the farmers start to use green technologies, including solar batteries.

Ecology and the Environmental Protection

For the **improvement of environmental situation** in lake Balkhash the Global Environmental Facility has allocated \$2 million.

A mobile application for **monitoring of outside air quality – AirKZ** – was launched all over Kazakhstan. The application provides the data on 46 settlements and 84 ecological stations. Using this application, the users can find the needed stations themselves; also the application can locate the nearest station using geolocation. The application shows basic indicators of contaminants in the air at the chosen location.

Kazakhstan has become one of the most toxic states in Central Asia, being in the list of top ten toxic countries of the world. The assessment was made by British organization "The EcoExperts", which analysed the data on 135 countries based on 5 factors of environment: energy consumption per capita; CO₂ emissions from fuel burning; level of air pollution; fatal cases due to air pollution, and renewable energy.

The Project **"Reforming the system of environmental payments. Assessment of compliance with the "polluter pays" principle in Kazakhstan for 2018-2019"** was launched as part of cooperation between Kazakhstan and OECD.

The work on **preparation of amendments to the Environmental Code** is underway as part of the "Improvement of the environmental assessment system in Kazakhstan in line with the Convention on Environmental Impact Assessment in a Transboundary Context" Project implemented by the Ministry of Energy and OECD. It is planned that new chapters such as "Strategical Environmental Assessment" and "Transboundary Procedures" will be included in the new Environmental Code. Also, subsidiary and sectoral legislation under the environmental assessment system will be amended.

As part of the Astana Economic Forum, the Al-Farabi KazNU has launched a **Sustainable Development Institute named after Ban Ki-moon**. The Institute covers all human activities, particularly, food security, military security, natural resources, and life under water and on earth.

In 2018, the **International Center for Green Technologies and Investment Projects** signed several agreements on cooperation for environment and sustainable development. In particular, the agreements were reached with NJSC "Kazakhstan-Finnish Technological Center"; Scandinavian North Ecological Financial Corporation (NEFCO); the leading Finnish companies such "SET Clean Tech", "PolarSol", and "Onninen", "VITO" research agency and the Latvian Institute for environmental solutions.

Foreign Policy and International Cooperation

2018 has been marked by many important geopolitical events for Kazakhstan.

The President of Kazakhstan participated in meetings of the UN Security Council in the US

(January), the Supreme Eurasian Economic Council (May and December); XI Astana Economic Forum “Summit of Global Challenges” (May); Council of the Heads of Member-States of SCO (June); The Fifth Caspian Summit in Aktau (August); Council of the Heads of IFAS State-Founders in Turkmenbashi (August); Council of the CIS Heads of State in Dushanbe (September), and the Council of Collective Security in OKSTO (October).

Kazakhstan has completed its **chairmanship in the UN Security Council**. See details in section “[Security Council](#)”.

The **Fifth Caspian Summit** that gathered the Heads of all Caspian states – Azerbaijan, Iran, Kazakhstan, Russia, and Turkmenistan – was held in Aktau (12 August). After 20 years of discussion, a Convention on the legal status of the Caspian Sea has been signed. The Convention has become a so-called “Constitution of the Caspian Sea.” It is designed to regulate the whole range of issues related to the rights and obligations of the riparian states and to become a guarantor of security and stability in the region. See details in section “[Caspian Sea: Special Legal Status](#)”.

The **eighth Session of the Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes took place in Astana (10-12 October)**. **More than 600 experts and ministers of 90 member countries of the UN, as well as international and non-governmental organizations and academia participated in the Conference**. The Conference discussions addressed such issues as adaptation to climate change; water-food-energy-ecosystem nexus, benefits of transboundary water cooperation, industrial security, and reporting. A number of decisions and documents have been adopted at the Conference, including two key documents: “Strategy for the Implementation of the Convention at the Global Level” and the “Program of Work for 2019-2021”. The chairmanship in the Bureau of the Water Convention for the period of 2019 to 2021 will be passed to Kazakhstan. See details in section “[UN Economic Commission for Europe](#)”.

The Meeting of the Russian-Kazakhstan Commission on **joint use and protection of transboundary water facilities** was held in Rostov (9 August). Issues related to high and low water in transboundary rivers have been discussed.

The **Agreement between the Government of Kazakhstan and the Government of China on**

cooperation for the construction of joint mudflow check dam – “Chukur-bulak (Almaty)” on the Khorgos River signed on 8 June 2017 in Astana was ratified. The mudflow check dam is a joint property of the Parties. The Parties jointly finance its construction by providing 50% of the total project cost each.

Upon initiative of the Heads of State N. Nazarbaev and Sh. Mirziyoyev, the **First Interregional Kazakhstan-Uzbekistan Forum** (Shymkent) took place on the 15th of November. The authorities of the regions in Kazakhstan and Uzbekistan have participated in the work of this Forum. In the course of the Forum 16 documents were signed on joint projects in the priority sectors of economy.

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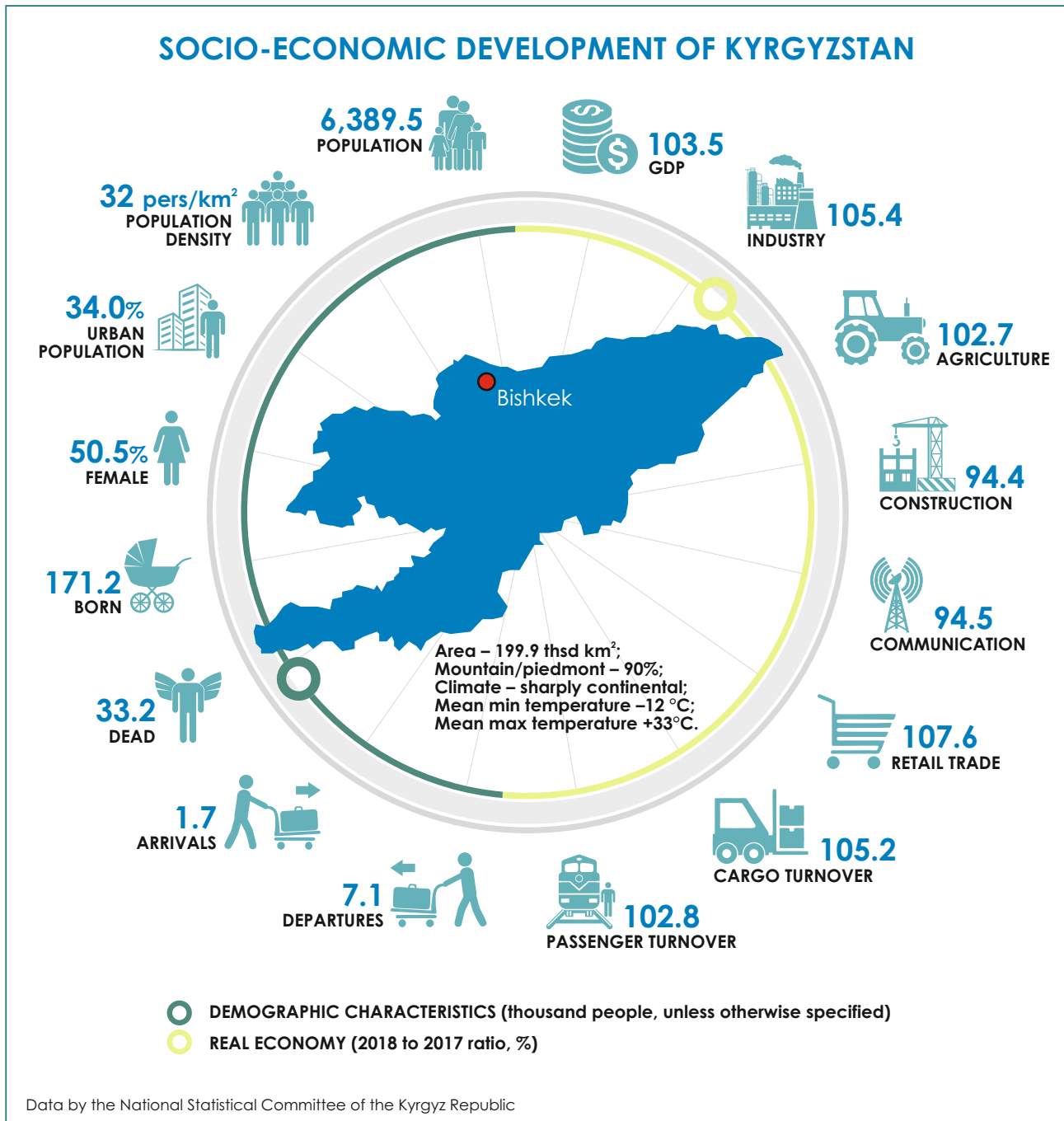
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5.2. Kyrgyzstan



General Information

Water resources. By expert estimations, the total available water resources in KR are 2,458 km³, including 650 km³ (26.4%) in glaciers, 1,745 km³ (71%) in lakes, 13 km³ (0.5%) as potentially usable groundwater resources, and 44.5 to 51.9 km³ (2%) as average annual river runoff. The flow formation area occupies 7% of the territory. There are about 3,000 rivers and streams with the total annual runoff of approximately 47 km³. The amount of annually renewable groundwater in major

artesian basins is within 7.7 km³. The area of current glaciation is 4% of the country's territory and varies within 7,500-8,000 km².

The state agency responsible for water management is the Department for Water Resources and Land Reclamation (DWRLR) at the Ministry of Agriculture, Food Industry and Land Reclamation of the Kyrgyz Republic. The Department is responsible for managing irrigation and drainage infrastructure; monitoring and regulation of water use; control and coordination of

the implementation of the single state water policy.

Energy. There are 18 power plants in the Kyrgyz Republic, including 16 HPPs and 2 thermal power stations (TPS) located in the cities of Bishkek (666 MW) and Osh (50 MW). The electric power system of Kyrgyzstan comprises the transmission lines of 0.4-500 kW, with the total length of 86,800 km. Kyrgyzstan's energy system can generate, transmit and distribute electricity not only within the country but also export, import and interchange the electricity to the neighbouring states, as well as cover the power deficiency and the on-peak load in energy grids of the Central Asia region. In terms of hydro resources, Kyrgyzstan is number three among the CIS countries after Russia and Tajikistan. There are 252 large and medium-size rivers in the country, the potential of which is estimated at 18.5 MW of power and more than 140-160 GWh of electricity, of which less than 10% is used only at present. The Naryn, Sary-Jaz, Kokomeren, Chatkal, Tar, Chu, Kara-Darya and Chon-Naryn rivers have huge reserves of hydropower resources. Their average slopes vary from 5 to 20 m per 1 km in length, and the average unit capacity ranges from 2.2 to 5.3 MW/km. As many as 31 hydropower plants could be potentially built along the Naryn River and its tributaries with the annual generation of more than 16 GWh. According to experts, the main problems of the energy sector in Kyrgyzstan include: limited energy generation capacities; world-wide change in prices for fuel and energy and disintegrating processes in the common electrical grid of the Central Asian region; reliance of power supply on water content in the Naryn River and water accumulation in the Toktogul reservoir; high power losses and deterioration of relevant equipment; lags in application of innovative technologies; high energy and carbon intensity of GDP and lack of long-term energy-saving policy; energy resource tariffs that do not cover expenses of energy companies and lack of own funds of energy companies for development and modernization.

Irrigated area and water management system.

In 2018, the total area of irrigated land in the Kyrgyz Republic was 1,053,000 ha. 240,000 ha are provided with the collector and drainage network. Conditions of about 87,000 ha of irrigated land are very poor. Provision with irrigation water is 78%. In this context, as part of the State Irrigation System Development Program for 2017-2026, it is planned to optimize the watering system and expand the irrigated areas by 50,000 ha. There are more than 8,000 of different hydraulic structures in the country. The

water-management system is comprised of 34 reservoirs for irrigation purposes and approximately 400 basins for daily and decade flow regulation with the total volume of about 2 km³. The total length of irrigation canals is 29,000 km, of which 5,800 km are the inter-farm canals on the balance sheet of the DWRLR, and 23,200 km are the on-farm canals on the balance sheet of local administration (Aiyl Okmotu), water-users associations (WUA) and other acting legal entities. Kyrgyzstan has 274 irrigation systems and 93 accumulating irrigation structures (reservoirs, basins for decade and daily regulation), 219 pumping stations (of which 111 ones are electrified) on balance sheet of DWRLR. The length of the collector-drainage network is 5,700 km, of which 1,190 km are on the balance sheet of DWRLR, 460 km on the balance sheet of WUAs and 4,060 km are on the balance sheet of Aiyl Okmotu.

New Legislation

The Land Code and the Law “On agricultural and management” (ZKR No.12 of 24.01.2018) have been amended. Based on new legislation, from now on, while allocating agricultural land for use, the priority right have the Kyrgyz citizens living in given rural district and having cultivated plots of less than 0.10 ha per member of the family, as well as citizens living in remote or highland areas. Also, this category includes agricultural cooperatives registered and functioning in the territory of given rural district.

The Law “On agricultural land management” has been amended (ZKR No.64 of 30 June 2018). The amendments make it clear that the agricultural land is that for agricultural use or designated for these purposes and to be used for seed production; livestock breeding; pilot farming and for agricultural cooperatives; commercial farming; protective forestry; horticulture; vegetable gardening, experimental and selection activity and for other purposes related to agricultural production.

The Law “On fishery” (ZKR No.20 of 13 February 2018) has been amended. In the amended law excludes the Kara-Suu Lake from the list of fishery ponds.

The changes have been made in the Law “On imposing moratorium for transformation of irrigated land into other categories of land” and the Law “On transformation of plots of land” (ZKR No.79 of 2 August 2018). The Law provides for creation of conditions for the farmers for productive use of agricultural land. More than

40,000 land plots on the total area of 13,000 ha, which by different reasons were not diverted from agricultural production and were not transformed into the category of settlements, have been legalized.

The Code on Administrative Responsibility (ZKR No.67 of 4 July 2018) has been supplemented by a provision that breaking the rules and requirements regarding hydrometeorological surveys and monitoring over the environment and its pollution leads to penalties for citizens in the amount of up to three calculation indices and for officials – from 10 to 20 calculation indices.

The National Development Strategy of the Kyrgyz Republic has been approved for the period of 2018-2040 (UP No.221 of 31.10.2018). The Strategy outlines vision of the future of the country reflecting the main principles and ways of achieving development goals in religious and political, social and economic spheres of the society. It also sets the priority mid-term steps for implementation of the long-term vision.

The Concept of green economy in the Kyrgyz Republic has been approved under the slogan “Kyrgyzstan is the country of green economy” (PZhK¹⁰ No. 2532-VI of 28 June 2018). The Concept determines the main activities and sectors for the green economy development in the country with the purpose to achieve sustainable socio-economic growth in the republic.

The “Provision on the order of construction, acceptance and connection of small hydro-power plants to the electrical grids” (PPKR No.465 of 04 October 2018) has been amended. The “State Agency on Architecture and Construction under the Government of the Kyrgyz Republic” in Point 12 of the Chapter 3 has been replaced by the “authorised state body on ecological and technical safety”.

The Government has approved the draft Law “On making amendments to some legislative acts of the KR (Water Code of the KR; The Law of the KR “On Water”) (PPKR No. 114 of 27 February 2018). The purposes of the Law include implementation of the principle of charging the use of water resources and water objects and elimination of collisions and loopholes in normative acts regulating the issues of water charges. The Draft Law has been approved by the Zhogorku Kenesh steering committee in the second reading (21 January 2019).

Water Sector

In 2018, the Kyrgyz Republic made huge efforts for preparation of infrastructure for irrigation, including repair and rehabilitation of irrigation canals (412 m); cleaning of river channels (369 km); reconstruction and rehabilitation of 1,161 hydraulic structures and 1,101 hydroposts; repair of 102 pump stations and 33 irrigation wells. It is planned to put into operation 31 irrigation objects for the total amount of \$259.1 million and 27,000 ha of new irrigated land, as well as improve water supply for 40,000 ha.

The “Reconstruction of irrigation system of the KR” Project started this year. For this Project the PRC has provided a grant for the amount of \$32 million. The Project provides for reconstruction and construction of 6 irrigation objects in Issyk-Kul, Batken, Talass and Chu provinces. After their completion, 5,400 ha of new irrigated land will be put into operation and water supply on an area of 22,100 ha will be improved. In general, the Project will create new jobs for 40 thousands of rural people all over the Republic.

Agreement with the EBRD has been reached to launch in 2019 new projects on irrigation and clean water supply to population in the regions and cities. For these infrastructure projects it is planned to allocate more than €129 million, of which €86 million as concessional lending and €36 million in form of a grant.

In Aksyj district of Jalal-Abad province, the **irrigational canal “Ak-Terek” for nearly 5,000 ha of land** near Kerben city and rural center Kosh-Dobo was under construction. The length of the canal is 7.4 km, of which more than 2 km will be built through the tunnel. The operation of the canal is to start in 2022. The amount of 800 million som have been allocated from the republican budget for construction of irrigational canal, 135 million of which have already been used.

Batken district has **started construction of irrigational canal to provide water to 1,500 ha of Dara and Tort-Gul rural communities.** The length of the canal is 46 km, and the carrying capacity is 4.5 m³/s. The construction is financed by the PRC in the amount of 500 million som through the grant agreement. The construction period is 3 years, and 80 % of workers are local people.

The 17th Meeting of the Coordination Council of **National Water Policy Dialogue** in Kyrgyzstan was held among the representatives of

¹⁰ PZhK - Decree of the Kyrgyz Parliament

national ministries and agencies, as well as international and donor organizations (January). The meeting's sessions focused on the activity related to the Protocol on Water and Health in the KR; the institutional, economic and financial aspects of water governance and water infrastructure; coordination of partners and projects on water issues in the KR. Presentations were made on the activity of "National Water Resources Management" Project implemented with the support of the WB and SDC as part of the preparation of basin plans for water development, use and protection.

ADB and the Government of KR discussed the Technical Assistance "Climate Change and Disaster-Resilient Water Resources Sector Project" financed by the Japan Fund for Poverty Reduction, the funds of which are administered by the ABD (February). The Investment Project for \$25 million, which is included in the 2017-2019 business-plan of the ADB' activity in the KR, would contribute to resolution of issues in the country related to climate change and disaster resilience in the water sector focusing on flood, mudslide and drought risks. Structural (civil works) and non-structural (capacity building, planning and trainings to combat natural disasters) elements will be included in the Project.

Basin Councils. Basin Councils were established for the upper area of the Naryn-Syrdarya Basin (February) and the Karadarya-Syrdarya Basin (June). The first Forum of Small Basin Councils of the CA and Afghanistan which brought together representatives of small basin councils, relevant ministers and agencies of the region, as well as international organizations and projects was held in November (Bishkek).

In the context of the Sustainable Energy Financing Program in Kyrgyzstan (KyrSEFF-2018) under the aegis of EBRD and EC, the ceremony of award for the achievements in the area of efficient water and energy use was held (December, Bishkek). The main purpose of the ceremony was to illustrate successful stories about green investments to the wide circle of interested parties. The awards were given to the best projects on green finance among farms, enterprises and financial agencies, which were supported under the second phase of KyrSEFF.

The Kyrgyz-Kazakh Company "Aquasilver" has created a **new generation water pump** ("Gidrotaran"), which **operates without electricity and fuel**. Its presentation was held in Bishkek. The pump uses the energy of open water flow, converting it into the water hammer using a

short shock tunnel. This water pump can be used in farms and peasant households, animal husbandries, construction sites, fish farms, aquaparks and homestead plots.

The book on the short history of water management in Talas province ("Talas oroonunun Cyy charbachylygynyn kyskacha taryhy") **was published in Kyrgyz language**. This book was prepared by the veteran of water management of the KR S.S. Chondiev (mid of 2018).

Agriculture

Based on the data of National Statistics Committee as of 1 January 2018, 429,000 economic entities active in agriculture, forestry and fishery are registered in the KR. This is comprised of 323,000 (75.4 %) peasant households (farms) and 106,000 (24.6 %) individual enterprises specialised in agricultural production.

The Ministry of Agriculture, Food Industry and Land Reclamation issued the **draft Government Decree of the Kyrgyz Republic "On approval of the Agriculture Development Strategy in the Kyrgyz Republic for the period up to 2040" for public discussion**. The Strategy includes implementation of the state regulation policy through the improvement of legislative framework, promotion of priority directions of agriculture and provision of the state support for achieving the stated goals.

A five-year Project "Provision of wider access to markets" was launched in the agro-industry sector of Kyrgyzstan for a total amount of \$55.4 million. The project is implemented in five provinces (Issyk-Kul; Naryn; Osh; Djalal-Abad and Batken) and aimed at provision of support to the selected livestock value chains and of access to markets. Credit and grant funds of the International Fund for Agriculture Development compose \$25.4 million, of which (based on the conditions of agreement signed on 21 August 2017 and ratified on 24 April 2018) \$12.7 million is credit and \$12.7 million is grant. The contribution from the financial service providers is \$20 million; that from beneficiaries and the Government is more than \$8 million and \$1.6 million, respectively. It is expected that the Project will cover 28,000 of rural households and about 34,000 farmers, entrepreneurs, unemployed youth and veterinarians. As the result, it is expected to achieve 30 % growth of sales to the targeted audience, increase export of livestock products by 10 % and create 2,800 of permanent job places.

The “Financing Agriculture-6” Project has been approved (PPKR No.92 of 14.02.2018) and is implemented as part of the Governmental Program (PPKR No. 74 of 31.01.2018). The Project is aimed at providing state support to the entrepreneurial entities and individuals in the country to complete spring field work in 2018 on schedule and develop further cattle breeding, crop production and agricultural cooperation. The project period covers 36 months. The sources of financing include the republican budget for 2018-2020 and funds of commercial banks and credit organizations. Based on the data of the Kyrgyz Ministry of Finance, as of 27 December 2018, commercial banks provided more than 5.6 billion som as concession loans for 11,300 rural producers. More than 1.3 billion som of the provided funds have been allocated for crop production, 2.9 billion som for cattle breeding, and 1.4 billion som for processing and services.

In 2018, inspections were undertaken to detect pests, diseases and weeds on an area of 435,100 ha. Based on the results of inspections, local authorities were given 1,200 signalling messages on a need to implement chemical treatment. Accordingly, farmers have treated crops with chemicals on an area of 210,000 ha and completed chemical weeding on 291,700 ha. 34,100 t of spiked cereal seeds (78 % of planned) have been pre-treated.

AgroTech Expo-2018 that demonstrated all agrarian developments in Kyrgyzstan was held in Bishkek (14-16 November).

More than 2,400 ton of fish were produced and the fish stock was reproduced **in Kyrgyzstan in 2018**. For the purposes of reproduction, fish ponds of Kyrgyzstan were replenished: the Ton fishery plant received 410,000 fish eggs; “Balykchylar” Limited Company – 420,000 eggs of Issyk-Kul trout; OOO “Karakolbalygy” – 200,000 fish eggs; Son-Kul fish farm – 1,350 million fish eggs, and the Orto-Tokoj reservoir- 1,200 million eggs of fera fish.

The State Service of Intellectual Property and Innovation under the Government of the Kyrgyz Republic (Kyrgyz-patent) has presented **the results of innovation project “Commercialization of new bio-fertilizer ‘Rostin’ production”** to improve soil productivity and crop yields in greenhouse farms and in open soil (November).

The Government of Japan allocated \$600,000 to the World Food Programme in Kyrgyzstan to support rural women involved in entrepreneurship and farming. The funds will be

delivered to proceed with successful projects for economic empowerment of rural women. Financial support will reach more than 15,500 vulnerable people in rural areas of Naryn, Talas, Jalal-Abad, Osh and Batken provinces. The grant will be provided for income-generating assets, for example, orchards and gardens, as well as for support in establishing small business and improving rural infrastructure.

In the course of implementation of the agro-industry project “OPTIMA” a Memorandum of Cooperation has been signed between the Kyrgyzstan Ministry of Agriculture, Food Industry and Land Reclamation, the Longkun China International Trading Co., LTD and the “EU Commodity Exchange”(EU-CE). The Memorandum provides for facilitation of mutual exchange of agricultural outputs between the producers of the KR and the PRC, including access to markets for agricultural producers, access to Chinese wholesale market network, and development of online trade on the basis of EU-CE between the Kyrgyz and Chinese entrepreneurs.

International Financial Corporation (IFC) group of the WB and KNAU have signed a Memorandum on Cooperation, which provides for transfer of Corporation’s training materials on agro-business to the University. The IFC will provide its support to the teachers of the University in reworking of training materials and the students will have possibility to get on-the-job training in pilot entities of the Project.

The Government of the KR and the UN World Food Programme have signed a Memorandum on Cooperation for 2018-2022 (PPKR No 462 of 08.10.2018), which provides for implementation of the joint Country Strategic Plan (CSP) during the period of 2018-2022. The main priorities of the Plan include the improvement of food security; optimization of school meals and improvement of living conditions of rural people through better performance in agriculture in the context of climate change. The CSP meets the national priorities aimed at economic growth and social welfare and helps to achieve SDG 2 “Zero hunger by 2030” and SDG 17 “Partnership for sustainable development”.

Drinking Water Supply

According to the Department for Water Supply and Sanitation at the SAAC and PHU, in total, there are 1,891 settlements registered in the KR. The coverage of people in these settlements with drinking water supply is about 65%. It is planned to build and rehabilitate the water

supply systems in 653 villages, 22 cities and 26 district centers and also build additional sewage systems in the KR by 2026. To this end, based on expert estimations, more than 30 billion som or \$438 million are needed. 386 villages of Kyrgyzstan have never had access to the water supply system, while 267 villages have the systems that were built in the fifties of the last century. To resolve this issue, the following financial sources will be used:

- WB allocated \$71.2 million for implementation of the “Ala-Too-Bulagy” Program, which is to cover 117 villages in Osh, Chu and Issyk-Kul provinces by 2022;
- IDB allocated \$23 million. Based on these funds, projects in 24 villages of Jalal-Abad province were started. In addition, as part of the “Ala-Too Bulagy” Program, it was decided to allocate additional funds in the amount of \$50 million for water supply of 91 villages in Batken and Talas provinces;
- ADB allocated a grant in the amount of \$21.4 million. Technical assistance will be provided for preparation of a project covering 42 villages in Naryn province. This is to be implemented over 2019-2023;
- Allocation of €80 million by EBRD is under consideration.

In general, for the drinking water supply projects the KR has received \$191 million from the WB, IDB, ADB, EBRD, EC and the Swiss Confederation. Grants cover a major part of this amount. For complete implementation of the Water Supply and Sanitation Strategy in Kyrgyz settlements by 2026 (approved by PPKR No. 155 of 28.03.2016) additional \$200 million will be needed. In total, there are 390 villages in the Kyrgyz Republic with no drinking water. The situation with Jalal-Abad province is especially difficult: 148 villages have no access to drinking water supply. In 2019, 350 million som is to be allocated from the republican budget for provision of access to clean drinking water.

The Agreement between the Government of KR and IDA on additional financing for the Sustainable Development of Rural Water Supply and Sanitation Project signed on 13 November 2017 **has been ratified** (ZKR No. 48 of 18 May 2018). The purpose of the Project is to improve the access to and quality of water supply and sanitation services in participating rural communities and build capacities of beneficiary institutions in the water supply and sanitation

sector. The Project costs \$43.2 million, of which: \$16.2 million – IDA grant; \$19.8 million – IDA loan; and, \$7.2 million – co-financing of the KR Government. The Project is implemented in 53 selected villages in Osh, Chu and Issyk-Kul provinces.

Departments of sanitary-epidemiological stations of Kara-Kulzha and Uzgen districts in Osh province have received new sets of equipment for drinking water quality checking and analysis. The equipment was bought through UNDP in the KR with the financial support of the Russian Federation. The whole set of equipment for two districts cost 2.2 million som. The equipment will help to improve the quality of health services for more than 315,000 villagers.

In the course of negotiations between the official delegation of the KR and representatives of the IDB, an agreement was reached on the provision of a loan of \$20 million. A Protocol was signed for the “Improvement of rural water supply and sanitation in Batken and Talas provinces” Project (23 November). According to the Agreement, the Department for Water Supply and Sanitation will be the Project Executive Agency and the Agency for Community Development and Investments will be the Implementing Agency.

ADB has approved a financing package to help improve wastewater management systems and strengthen the sustainability of water supply and sanitation facilities in the two lakeshore cities of Balykchy and Karakol on Issyk-Kul Lake (November). The total cost of the Project, which is to be finished by the end of 2024, will be \$41.8 million, of which \$36.5 million is the ADB aid (\$23.7 million loan and \$12.8 million grant), and \$5.3 million is a contribution from the KR. The Project will improve and upgrade the wastewater systems in the two lakeshore cities through the construction of 21.6 km of sewerage; 1.7 km of effluent outfall pipelines; and a new pump station. A reservoir in Karakol will be desludged by removing 100,000 m³ of sludge, while providing 7 septage vacuum trucks. The Project will build capacities of the “Vodokanal” enterprises that are responsible for water supply and sanitation in Balykchy and Karakol as well as raise people’s awareness on advanced methods of sanitation and hygiene.

An agreement was reached to allocate a sovereign loan of the EBRD in the amount of €5.5 million for 15 years and a grant from the Swiss Government in the amount of €5.7 million (December). The funds will be used to **improve the updated water supply system** built more than

50 years ago. The Project provides for financing of a range of activities to improve water supply, including rehabilitation of conduit network, as well as renovation of process equipment, metering system, storage tank and pump station.

In 2018, the work on provision of access to water supply was undertaken for several villages in Chu province: Kara-Suu, Kara-Sakal, and Toloikon. Also, 8 km of sewerage network laid in Bishkek.

Power System

The Russian Holding Company “RusHydro” has informed the KR on preparation of a complaint to the Hague Tribunal on the Upper Naryn Cascade of HPP (June). In 2012, the KR and RF reached an agreement on the construction of the Kambarata HPP-1 and the Upper Naryn Cascade of HPP with participation of “Inter RAO” and “RusHydro” respectively. In 2016, the Kyrgyz authorities unilaterally terminated the agreement with Russia on joint implementation of these two projects. After that, “RusHydro” declared about its intention to submit the matter to international arbitration. In July 2017, the Kyrgyz authorities signed an agreement with the Czech company Liglass Trading CZ on the renewal of construction of the Upper Naryn Cascade of HPP, which was initiated together with “RusHydro”. The Agreement provided that the Liglass Trading would pay the debt of Kyrgyzstan before the Russian investor in the amount of \$37 million during one month. However, the Government of Kyrgyzstan has terminated the Agreement with the Czech company due to the fact that the latter failed to fulfil this obligation in due time (October).

Rehabilitation and construction work on the energy block No.1 of the Toktogul HPP was undertaken as part of the “Rehabilitation of Energy Sector” Project (Phase 1). The cable line KL-1-500 kW and power transformer 500 kW (July) have been replaced.

Small HPPs

The Parliament (Zhogorku Kenesh) of the Kyrgyz Republic has approved the draft law “On making amendments to some legislative acts of the KR on renewable sources” (24.01.2019). The changes include the provision of tax and custom benefits (through tax exemption for the period of 5 years) for new producers of electrical and thermal energy generated through RES, as well as the reduction of coefficients to the maximum electricity tariff for end consumers

during the whole grace period (currently, the maximum tariff is 2.24 som/kW). Also, new concepts such as the “grace period” and “distribution plan” are being introduced. The grace period extends from 8 to 10 years. The notion of “tender” is proposed to be replaced with the “competitive selection”. It has been proposed also to replace the existing mechanism of additional cost compensation of the distributing enterprises with purchasing of electricity from RES entities.

Amendments have been made to the Government Decree “On approval of the Provision on the order of construction, acceptance and technological connection of small hydropower stations to electrical grids” No. 476 of 28 July 2009 (PPKR No. 456 of 4.10.2018). According to the amendments, construction organizations should notify an authorised authority for ecological and technical safety – “Gosekotehinspekziya” - before undertaking construction of small HPP and electricity grid complex for technological connection of small HPP to electrical grids. Previously, it was necessary to inform the authorized energy body and the State Architecture and Construction Agency under the Government of the KR.

Two small HPPs have been built in Ton district of the Issyk-Kul province – Kok-Saysk (3.4 MW) and Konur-Olonsk (3.6 MW) for a total amount of 730 million som. The expected total annual electricity generation is 45 million kWh. The credit for purchasing of equipment was provided by the Russian-Kyrgyz Development Fund. The hydropower plants will be equipped with Austrian facilities and components from the Czech Republic, Switzerland, Germany and Turkey.

Environmental Protection

“The Establishment of UNCCD Knowledge Hub Project” has been completed. The Project implemented since 2016 by CAMP Alatau Public Foundation and the Kyrgyz MAFILR was aimed to combat and reduce degraded and dried land areas, landscape them, and raise public awareness on consequences of desertification. As part of the Project, the UNCCD Knowledge Hub was established. Among the main results of the Knowledge Hub were the developed proposals on combatting desertification, web-site (www.unccd.agroprod.kg) and newspaper “Agrovesti”.

Emergencies

With the aim of increasing resilience of population and territories to emergency situations the

concept of comprehensive protection of population and territories of the KR for 2018-2030 (PPKR No. 58 of 29.01.2018) was adopted.

The key expected results of the Concept include the full coverage of population with the early warning system; reduced to minimum death level from the emergencies by 2030; reduced to minimum direct economic losses and damage by 2030; increased resilience of critical infrastructure to emergencies.

The country has about 3,900 mudflow basins; 200 highland lakes have high risk of breach; and more than 300 settlements are located in the area of potential catastrophic flooding. More than a half territory of the country is subjected to avalanches. The avalanche period lasts for 5-7 months. Annually, avalanches cause emergencies and human casualties on mountain roads. There are more than 5,000 active landslides in Kyrgyzstan. 600 settlements are subjected to different degrees of landslide processes. About 10,000 households are located in potentially dangerous areas. In total, the area of 3.200 km² is waterlogged. Natural emergencies also include hazardous meteorological phenomena (heavy showers, hail, heavy winds, snowfalls and frosts, drought, etc.), bank erosion, collapsing loess and clay soil, ground fall, rock fall and others.

During the period of storm warning from 26 to 30 January, snowy and icy streams along the Ala-Archa River caused ice jams and flooded houses and coastal territories of Pervomai and Leninskiy districts.

In March, the rising water level in the Kara-Unkur River in Bazar-Korgon district created a threat of flooding for cotton-processing plant.

In April, Uzgen district saw an increased water level in the Karadarya River. As a result, more than 350 ha of agricultural land have been flooded. The emergency situation has been declared in Jalal-Abad city and Suzak district after landsliding, which blocked the Kek-Art River bed.

In May, as a result of mudslides in Leilek district of Batken province, 27 private and 5 social structures and 8 farms were flooded. 69 ha of agricultural lands and more than 13 km of internal roads have been flushed away. 242 goats and sheep and 30 heads of cattle have been swept out. Also, the streams have destroyed 6 bridges, 4 cars and 6 pieces of electrical equipment.

Since 2017, a massive outbreak and growth of locusts have been observed in Kyrgyzstan (the same situation is registered in all republics in Central Asia). In this context, the area of more than 107,000 ha has been chemically treated. Annually, locusts are considered as a potential threat for agriculture, economy, social life, and puts food provision at risk. In May, locusts covered more than 61,000 ha of land. Based on the expert data, this mass outbreak and growth will continue during 4-6 years.

The Law of the KR "On ratification of the Agreement between the KR and IDA on financing resilience to disaster risks in Kyrgyzstan signed on 10 September 2018 in Bishkek" has been adopted (PZK RK No. 2817-VI of 27.12.2018). The Agreement provides support to the Government of Kyrgyzstan in building capacities for disaster risk management. The Project consists of 5 components for implementation of which the WB allocates \$20 million, 50% of which is credit and another 50% is grant. The credit is provided for 38 years with forbearance period of 6 years.

The ADB has approved \$38.6 million for the improvement of disaster risk management in the Kyrgyz Republic, in particular, for financing modernization of irrigation systems, increase of agricultural production and improvement of land use, development of emergency risks management and improvement of relevant data collection and analysis in the KR. The Project will be focused on the Fergana Valley in south-western part of the country and the basin of the Chu River in the north, which are vulnerable to floods, mudslides and droughts aggravated by the climate change. Co-financing of the Government of Kyrgyzstan will amount to \$5 million.

Foreign Policy and International Cooperation

In 2018, the President of the KR made state visits to Turkmenistan (August), the PRC (June), the Republic of Tajikistan (February) and Turkey (April) and working visits to the Kingdom of Belgium (April), the Russian Federation (May), the Republic of Kazakhstan (March), Turkey (July), the U.S. and the Republic of Tajikistan (September).

In the course of the year, the President of KR participated in the following events: the First Consulting Meeting of the Heads of State of Central Asia (March, Astana); Meeting of the Highest Eurasian Economic Council with participation of the Heads of State of EAEC (May,

Sochi); Meeting of the Council of Heads of SCO Member States (June, Qingdao); Meeting of the National Council on Sustainable Development of the KR (August, Bishkek), IFAS Summit (August, Turkmenbashi); Opening Ceremony of the Third World Nomad Games (September, Cholpon-Ata); the 73rd UN General Assembly (September, New York); Meeting of the Board of the CIS Heads of State (September, Dushanbe); Meeting of the OSCE Parliamentary Assembly (October, Bishkek); World Issyk-Kul Forum "Chyngyz Aitmatov and modern world's challenges" (October, Cholpon-Ata); Session of the CSTO Collective Security Board (November, Astana); the Kyrgyz Youth Congress (November, Bishkek); II International Conference "Islam in modern civil state" (November, Bishkek).

The important international events with the participation of the Kyrgyz Republic in 2018 include the following:

- The First Meeting of border provinces of Kyrgyzstan and Uzbekistan under the supervision of the Prime-Ministers of the two countries (March, Fergana);
- Full-fledged Meeting of the CA Ministers for Foreign Affairs, during which the issues of further development of relationships in all areas have been discussed (July, Cholpon-Ata);
- State visit of the President of KR to Turkmenistan. A package of agreements has been signed including the Kyrgyz-Turkmen Declaration on Strategic Partnership, on strengthening of friendship and trust (August, Ashkhabad). See details in section "[Kyrgyzstan-Turkmenistan](#)";
- Meeting of the Heads of Participating State of the VI Summit of the Cooperation Council of Turkic Speaking States (CCTSS) under the chairmanship of the President of KR (September, Cholpon-Ata);
- IV World Mountain Forum (October, Bishkek);
- Regular Session of the CSTO Collective Security Council in the KR, during which the chairmanship has been transferred from the Republic of Kazakhstan to the Kyrgyz Republic (November, Astana);
- Meeting of the Ministers for Foreign Affairs of EU-CA (November, Brussels);

- II Meeting of the Heads of border provinces of Kyrgyzstan and Uzbekistan under the supervision of the Prime-Ministers of two countries (December, Osh);
- [62nd Plenary Meeting](#) of the 73rd UN GA, during which the amended draft Resolution "The role of international community in prevention of radioactive threat in Central Asia" initiated by the KR has been unanimously adopted (December, New York).

Sources:

Official sites of the:

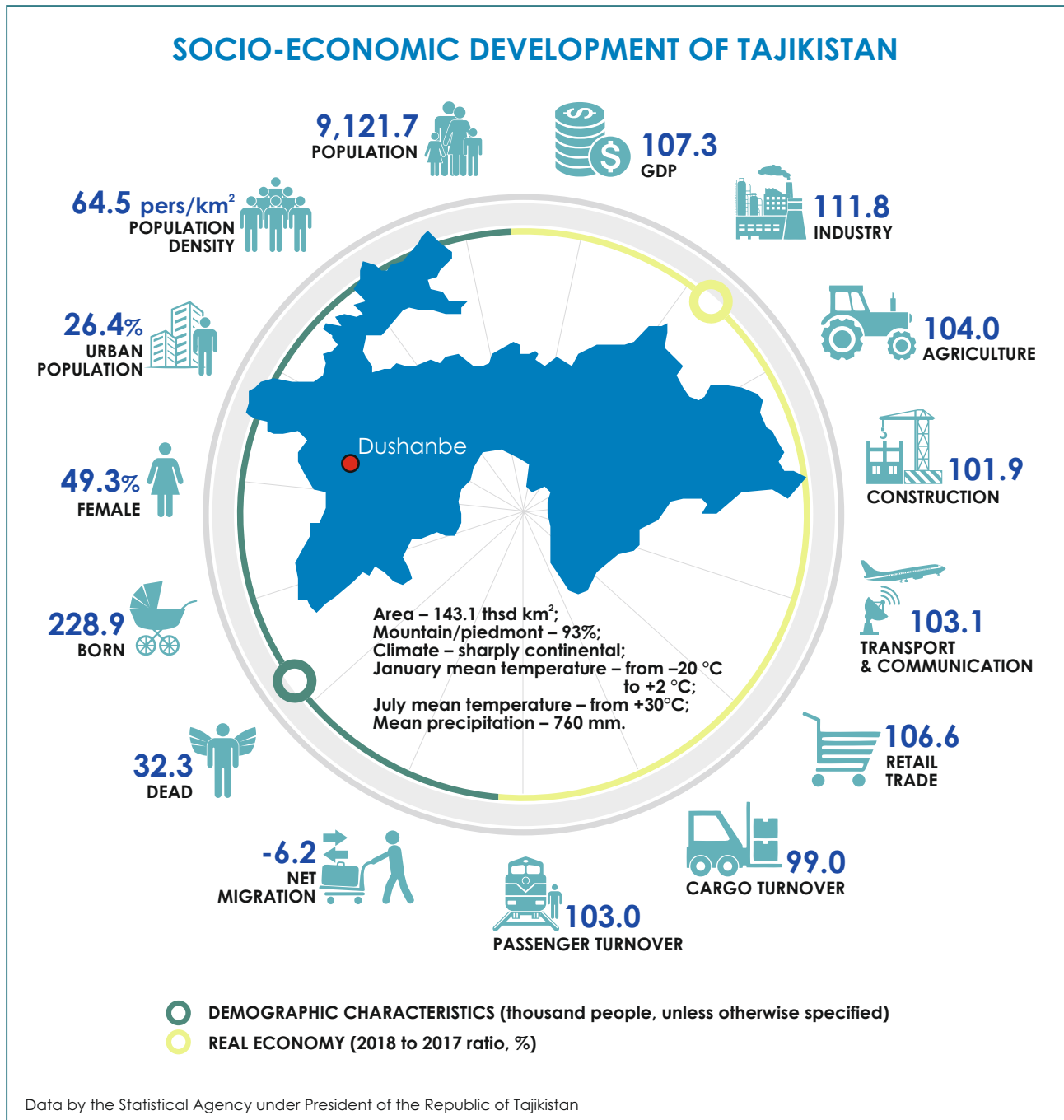
The President of the Kyrgyz Republic (www.prezident.kg);
 The Parliament of the Kyrgyz Republic (www.kenesh.kg);
 The Ministry of Justice (<http://cbd.minijust.gov.kg>);
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Explanatory notes to the Kyrgyz Republic Irrigation Development State Program for 2017-2026

News sites:

<http://barometr.kg>;
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5.3. Tajikistan



General Information

Water resources. Tajikistan ranked the first in Central Asia in terms of water reserves. Mountains and piedmont zone are the main streamflow generation areas in the Aral Sea Basin. More than 80% of Amu Darya runoff and 1% of Syr Darya runoff are formed in Tajikistan. In total, this accounts for 64 km³ a year or 55.4% of water resources in the Aral Sea Basin. The total glacial volume is more than 845 km³, and lake water is about 46.3 km³. Renewable groundwa-

ter resources of Tajikistan amount to 18.7 km³ a year. The unit water supply for population is 7,000 m³/per capita a year.

Energy. Against the background of insignificant oil and gas resources and difficulties for large-scale coal mining, Tajikistan has huge, inexhaustible reserves of hydropower resources. By expert estimations, those reserves amount to approximately 527 billion kWh/year. At present, about 95% of energy in the country is generated by hydropower plants. In 2018, energy genera-

ted all over the country amounted to more than 16.2 billion kWh or more than 3% of available potential.

The state agencies dealing with water management in Tajikistan (PP No. 791 of 30.12.2015) include: Ministry of Energy and Water Resources (MEWR), Ministry of Agriculture, Ministry of Health and Social Protection of Population, Committee for Environmental Protection, Committee for Emergencies and Civil Defence, Chief Administration of Geology, Service of State Monitoring over Safe Operations in Industry and Mining, Agency of Land Reclamation and Irrigation at the Government of Tajikistan, State Unitary Enterprise “Khochagii Manziliyu Kommunalii”, and Open Joint Stock Company “Barqi Tojik”.

New Legislation

In 2018, a number of legal regulatory acts were adopted in the area of agriculture, water management, hydropower and environment. In particular, amendments and changes have been made to the Law “On Security of Hydro-technical Constructions” (ZRT No. 1500 of 02.01.2018 and No. 1534 of 17.05.2018); environmental impact assessment procedure, which categorizes structures depending on the character of their impact on environment, has been approved. The Law of the Republic of Tajikistan “On amending the Law on State Budget of the Republic of Tajikistan for 2019” (ZRT No. 1604 of 19.04.2019) was adopted as well.

Implementation of National Strategies and Programs

The National Development Council under the President of the RT met to discuss the progress on national strategy documents in the context of SDGs, such as the National Development Strategy by 2030 and the Mid-term Development Program of the Republic of Tajikistan for 2016-2020 (3 July, Dushanbe). The President of the RT Emomali Rakhmon mentioned in his speech that “... over two years of implementation of the National Strategy, more than 9.2 billion somoni was allocated to the education sector (17.9%), which is 5.9% of the GDP. In this period, more than 45,000 jobs have been created in education. The health sector received 3.5 billion somoni; social insurance and protection have received 8.5 billion somoni [...]. More than 9.6 billion somoni have been spent to ensure energy independence; approximately 3 billion somoni have been provided for the transport infrastructure to help Tajikistan to move from

communicational dead-end and become a transit country. In the energy sector, new capacities to generate electrical and heat energy have been put into operation, including heating centers of Dushanbe-1 and 2. At the same time, the first phase of reconstruction of hydropower plants, such as Nurek, Sarband and Kairakkum was started. In the transport sector, the reconstruction of roads Vose-Khovaling; Sairon-Karamik; Dushanbe-Tursun-zade-border of Uzbekistan and a part of railroad Vakhdat-Yavan have been completed. The construction of modern terminals Kulma; Guliston; Nizhniy Panj and Bobojon Gafurov, as well as the reconstruction of highways Dushanbe-Bokhtar; Hujand-Isphara; Kulyab-Shamsiddini Shohin; Shkev-Kalaihumb, and Temurmalik-Baldjuvan-Khovaling are underway.

A meeting of the Inter-Agency Working Group on the analysis and assessment of implementation of sectoral and regional programs was held in Dushanbe (5 November). The participants discussed the progress achieved on the “Socio-economic development program in the city of Kulyab for 2015-2019” and the “Plan of actions on socio-economic development of the mountain areas of Kulyab province for 2014-2019”.

Water Sector

The first public hearings of the Draft Law “On land reclamation and irrigation” were held in the Gorno-Badakhshan autonomous province (GBO) on 3 August. This Law was drafted as part of the Water Sector Reform Program for 2016-2030 approved by PP RT No. 791 of 15 December 2015. The new Law provides for the establishment of a designated authority in the area of land reclamation, which will be responsible for licensing of relevant activity.

The Government of Tajikistan and the WB signed the grant agreement under the **Zarafshan Irrigation Rehabilitation and Improvement Project** for an amount of \$16.5 million (16 January).

The ADB Board of Directors has approved a grant in the amount of \$6.5 million as an additional financing for the current **Water Resources Management in the Panj River Basin Project**.

A small basin council in the Tajik territory of the Isfana River sub-basin has been established. The main task of the Basin Council is to manage water resources of the sub-basin, which covers Jabbar-Rasulov and Spitamen districts in Tajikistan.

The pump stations in Kizili and Seksari settlements have started their operation after repair and rehabilitation. The pump stations are to contribute to better conditions of 4,000 ha of land. Particularly, 1,300 ha will be put into rotation again and 1,000 ha will be developed at the expense of dryland (boghara) and pastures.

A reconstructed canal, 1.2 km long, has been put into operation in the Siponj village of Bartang Valley in Rushan district in GBAO (June).

Agriculture

Tajikistan is a highland republic, with a small portion of land suitable for cultivation. Due to deterioration of irrigation and drainage infrastructure, waterlogging and salinization, only 515,000 ha are used out of 720,000 ha of irrigated arable land.

Harvest 2018. 187,500 ha of land were allocated for cotton in 2018 or 13,500 ha more than in the previous year because of growing market demand. However, the cotton harvest collected in 2018 was the lowest for the last 5 years. As for the grain crops, by December 2018, the country's agriculture produced more than 1.2 million tonnes of grain, including more than 765,200 tonnes of wheat. And wheat import increased by approximately 4,400 tonnes as compared to 2017 and reached 1.019 million tonnes at \$272.6 million. Flour import decreased by 7,400 tonnes – to 47,000 tonnes at approximately \$10 million. And 954,200 tonnes of potato have been harvested.

As of December 2018, the **agricultural production output** reached 24.2 billion somoni or \$2.5 billion in Tajikistan. Crop production grew 3.6% (\$261 million), while the growth in the live-stock breeding sector was 5.4% (\$96.3 million).

The Khatlon province authorities and USAID held the first **fruit-and-vegetable trade forum**, which provided communication and partnership opportunities for more than 300 producers, sellers and buyers from Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.

Drinking Water Supply

Only 58% of Tajikistan population have got access to centralized water supply. To improve the situation, the following steps were taken in 2018:

The construction of **water supply systems** for the cities of Kanibadam and Gulistan was started to provide clean drinking water to 25

thousand people and more than 15 thousand people, respectively.

The ADB Board of Directors has approved a grant in the amount of \$41.18 million for the **rehabilitation** and development of climate resilient water supply and sanitation infrastructure in the southeast of Dushanbe.

A memorandum was signed between the Red Crescent Societies of Tajikistan and Kuwait on cooperation in the area of health improvement, charitable assistance to the people-in-need in Tajikistan, and water supply, including laying water mains in the water-scarce regions, etc. (April, Kuwait).

Energy

Restructuring of the State Energy Holding Company “Barqi Tojik”. The restructuring process of the “Barqi Tojik” was started in 2012. Changing the structure of the State Holding is an important part of the reform implemented in the energy sector. The Resolution of the Tajik Government No. 234 of 28.04.18 “On reorganization of joint-stock companies” mentions the reorganization of the Open Joint-Stock Holding Company (OJSC) “Barqi Tojik” and the establishment on its basis of two new open joint-stock companies, such as “Transmitting power networks” and “Distribution networks”. The announcement of the IMF mission on reorganization of the OJSC “Barqi Tojik” stated that the losses incurred by “Barqi Tojik” were caused by the lack of accountability and transparency in management and the tariffs for big industries that were lower than the base cost. “By the beginning of the second half of 2018, the total liabilities of “Barqi Tojik” were more than 15.1 billion somoni (over \$1.6 billion), including tax liabilities (109.2 million somoni), debts to Sangtuda HPP-1 (1 billion somoni) and HPP “Sangtuda-2” (1.2 billion somoni), debt to the OJSC “Orienbank” (1.8 billion somoni) and debt for purchase and delivery of coal (14.8 million somoni). By the Government Decree “On governmental financial support to the Joint Stock Holding Company “Barqi Tojik” (PP RT No. 606 of 29.12.2018) it was instructed to reduce the debt of “Barqi Tojik” to “Sangtuda HPP-1” in the amount of about 47.2 million somoni.

Electricity production and export. In 2018, Tajikistan was exporting more than [2.4 billion kWh of electrical power](#), which is approximately twice as much as in the last year, when the country sold approximately 1.3 million kWh to foreign partners, of which 926 million kWh were

sold to Afghanistan and 1.48 billion kWh delivered to Uzbekistan. Afghanistan is paying twice as much for Tajik electricity (\$0.04 kWh) than Uzbekistan (\$0.02 kWh in summer and 25% higher in winter time), who started to buy electricity since April 2018. The national budget revenues from selling of electricity generated in the country in 2018 (over 19.7 billion kWh) amounted to 2.7 billion somoni (\$286 million, based on the exchange rate of NBT as of 28 January 2019), which is by 458.8 million somoni (\$48.6 million) more than in 2017.

Two transmitting lines have been put into operation with the capacity of 220 and 500 kW. In March 2018, the transmitting line of 220 kW "Aini-Rudaki" and the sub-station "Rudaki" were put into operation. The TBEA CO LTD Company, China, is the main contractor of the above project. The launch ceremony of the transmitting line 500 kW "Dushanbe-Obi gharm" and distribution kit EDK-500 was held in November. This transmitting line is to connect the sub-station "Dushanbe-500 kW" with EDK.

According to PP RT No. 473 of 25 September 2018, the price for electricity is to increase by 15% since the 1st of November. Now, the Tajik population has to pay 19.37 dirams instead of 16.85 dirams per kilowatt.

Rogun HPP. Construction works in 2018 were completed in line with the schedule. The staff of Dnepr-SGEM together with chief-engineers of the "Electrotyazhmash" plant and the management staff of the station transported and assembled in proper location the runner of the hydroelectric generator No. 6, the first of 6 units of the Rogun HPP (5 July). The official launch of the first unit of the Rogun HPP (16 November) was held with participation of the Vice-Prime-Minister of Afghanistan, the Minister of Water Management of Uzbekistan and the Deputy Minister of Energy of Russia, as well as representatives of the CASA-1000 participating countries, international organizations, diplomats and journalists from more than 30 leading media agencies in different countries.

Initially, 2 billion somoni were allocated for the Rogun HPP from the national budget for 2018. In October, Majlisi Namoyandagon (Lower Chamber of Parliament) of Tajikistan approved amendments to the state budget of the RT for 2018. In accordance with the amendments, additional funds in the amount of 749 million somoni were allocated for the construction of the Rogun HPP. More than 223 million budget funds will be sent in 2019 for finishing of the Rogun HPP. In September 2018,

the Government of Tajikistan put Eurobonds in international markets and attracted \$500 million. The Government of Tajikistan plans to pay off its external creditors, which have acquired Eurobonds by 2028. In order to finish the HPP and pay off debts, the Tajik authorities intend to sell electrical energy generated by the two units to Afghanistan and Pakistan at higher tariffs.

By the invitation of the Tajik side, the **ICWC delegation visited the Rogun HPP** (28 November 2018). The visit was started from the office of OJSC "Rogun HPP", where Mr. Rakhmonov, the chief operating officer, explained about the construction of the station and provided the detailed information about its key structures. Then the delegation visited the site. 52 km of tunnels of the planned 74 km have been already built. The cost of the finished work, including that done in the Soviet period, is \$3.2 billion. To complete the HPP, additional \$4.5 billion will be needed (See details in section "[ICWC](#)" and [Press-release of SIC ICWC](#)).

CASA-1000. In the second quarter of 2018 a tender to develop the CASA-1000 project operational strategy and a high-voltage direct current transmission system was announced. Based on the results of the CASA-1000 Regional Project's Inter-Governmental Board Meeting, the Agreement between the OJSC "Barqi Tojik" and the Italian Company CESI on consulting services for direct-current objects was signed in September. Also, the Agreement between the OJSC "Barqi Tojik" and the Swedish Company ABB on the construction of converter sub-station in Sangtuda with the capacity of 1300 MW and the Agreement between the OJSC "Barqi Tojik" and the Indian Company "Kalpataru Power transmission Ltd" on the construction of the Tajik part of power transmission line 500 kW were signed. As of December 2018, the design of transmission line Sangtuda 500 kW up to the border of Afghanistan was completed and submitted to the OJSC "Barqi Tojik" for approval.

Sarband HPP. In Khatlon district in the south of Tajikistan, the first modernized plant unit of Sarband (Head) hydropower plant on the Vakhsh River was officially launched (7 November). The contractor, "PowerChina" (Sino-hydro) Company, has informed that after the reconstruction the capacity of the plant unit increased from 25 to 49 MW, i.e. by 24 MW.

Nurek HPP. The Nurek HPP is the main source of power supply in Tajikistan but due to deteriorated equipment it works for 80% of its capacity. To deal with this issue the Government of

Tajikistan attracts investments for its rehabilitation. The total amount of rehabilitation project is \$700 million. The WB has provided \$225 million and the Asian Bank on infrastructure investments and the European Bank have allocated additional \$100 million. In August 2018, as a result of the tender announced for rehabilitation of the Nurek HPP, OJSC "Barqi Tojik" selected the group of companies "Andritz" (with the headquarters in Austria).

Kairakkum HPP. About \$126 million will be allocated for implementation of the second phase of the Kairakkum Hydro Power Rehabilitation Project in Tajikistan, of which \$38 million will be a public loan from the EBRD, \$27 million is a concessional loan, \$23 million is a grant of the Green Climate Fund and €35 million is a public loan of the European Investment Bank. The project is expected to complete the rehabilitation of the Kairakkum HPP with the maximum increase of the current fixed capacity from 126 to 174 MW. The project is to be completed in 2024. The contract for implementation of the Project was signed on 20 December with the GE Hydro (France), GE Renewable (Switzerland), and the Cobra Instalaciones y Servicios S.A. (France-Switzerland-Spain).

Farkhad HPP. Tajikistan and Uzbekistan signed an agreement on cooperation in operation of the Farkhad HPP (9 March). By this agreement Tajikistan and Uzbekistan, respecting the interests of the both parties, have agreed to use together the Farkhad Hydrosystem for the period of next 49 years: the territory, where the Farkhad HPP is located, should be considered as the territory of Tajikistan, and the hydropower plant should be considered to be the property of Uzbekistan, which consumes 100% of electrical power generated by the HPP. The Agreement was ratified on 25 April 2018 during the regular meeting of the Majlisi Namoyandagon of the Republic of Tajikistan.

Small HPPs. By May 2019, 30% of work on the reconstruction of the "Oksu" HPP has been completed in the Murgab district, GBAO. The project cost is 7.4 million somoni. The "Pamir Energy" Company is in charge for implementation of the project and the "Bunyod Ltd" has been chosen as a contractor of construction work. It is planned to increase the capacity of two units up to 800 kW each at the total capacity of 1,600 kW to improve the power supply of the Murgab district.

Small HPP "Tajikistan" with the capacity of 1.5 thousand kW has been put into operation in Murgab District, GBAO in September. The dam

height is 64 m and the length is 12 m. There are two units in the machinery room, each having capacity of 750 kW. They are automatically operated through the SCADA system.

Early in 2018, Tajikistan received the first part of component units from the Tashkent plant "Uzelektroapparat" in the amount of \$670,000.

Climate Change, Glaciers and the Environmental Protection

The **Glacier Research Center** was established at the Tajik Academy of Sciences (PP RT No. 162 of 27.03.2018). The Center organized an expedition of a group of scientists to small mountains in the Varzob gorge and high peaks of Pamir to assess conditions of glaciers (June-September). The studies have revealed considerable changes of the Pamir's glacier "Russian Geographical Society", on the surface of which a big lake occurred and stretched to 200 m. It is the alarm signal. Under the effect of lake water, a part of ice may calve from the glacier and block the Abdukahhor River. This could pose the risk of flooding for the population in the Vanj Valley.

A very hot summer of 2018 had a negative effect on glaciers. As a result of increased air temperature and the intensive melting of the Vodif glacier in Gorno-Mastchi district, the rock fell in early July and damaged 200 m of road way. Consequently, the water level in rivers rose sharply by almost 100 m³.

Disaster Prevention

Over 11 months of 2018, 165 emergency and extreme situations were registered in the Republic of Tajikistan, of which 21 ones caused physical damage to the national economy. Particularly, Tajikistan faced hazardous disasters and processes, such as earthquakes, mudslides, groundwater rise, heavy rains, erosion, etc.

To prevent natural disasters, in 2018, necessary actions such as reinforcement of banks and cleaning of river beds of the Panj, Vakhsh and Kafirnigan rivers were taken in the Sogd and Khatlon provinces by local emergency agencies and local authorities.

The Emergency Committee with the financial support of the WB, the Government of Switzerland (SECO), USA (USAID), the Aga Khan Agency (Habitat) and the Government of Japan installed a modern early warning monitoring system at the Usoj dam.

To support the country in its disaster prevention efforts, the Government of Tajikistan and the ADB have signed a grant agreement for the amount of \$10 million. Additionally, the European Commission has allocated €60,000 as a humanitarian finance to provide emergency assistance to the communities suffering from floods in the south of Tajikistan.

Foreign Investments

In 2018, foreign investors contributed to Tajikistan 6.1 billion somoni (\$645 million), of which 3 billion somoni (\$326 million) are direct foreign investments for the development of education, energy, transport and agriculture. In total, 69 investment projects are underway in the country for the total amount of 30.5 billion somoni or \$3.23 billion. Those include 23 grant projects, 12 loans and 34 mixed financing projects. The investments are made in 9 education and social protection projects, 23 agricultural and irrigation projects, 11 energy projects, 16 transportation projects and other areas. From the beginning of implementation of these projects and by 1 January 2019, the half of the total amount allocated to these projects – 15.5 billion somoni (\$1.64 billion) – has been used. Particularly, in 2018, 3.9 billion somoni was used (\$418.6 million), which is 96% of the expected volume. The on-going projects are financed by the ADB (\$743 million), WB (\$594 million), Eximbank of China (\$467 million), EBRD (\$403 million), IDB (\$148.6 million), etc.

Foreign Policy and International Cooperation

In 2018, with the purpose to strengthen and expand friendship and cooperation, seek for new ways of development and deepening of relations with the majority of countries all over the world as well as to take part in high-level forums, the President of Tajikistan Mr. Emomali Rakhmon repaid a state visit to the Republic of Uzbekistan; made 3 official visits (Kazakhstan, Azerbaijan and Japan) and 7 working trips (USA, Russia, China, Kazakhstan and Turkmenistan).

Major international events:

In relation to the beginning of the 2018-2028 International Decade for Action “Water for Sustainable Development” and based on the initiative of the President Emomali Rakhmon, a high-level event was held on 22 March in New York. At the beginning of the session, Mr. Mahmoud Saikal, GA Deputy Chairman, shared the purposes of this high-level event. Antonio Guterres, the UN Secretary General, underlined

the importance of global initiatives of the President Emomali Rakhmon and shared the impressions of his last visit to Tajikistan. In his speech the President of Tajikistan mentioned 5 global challenges related to water resources, such as climate change, population growth, gender, funding for plans and actions, and transboundary component of water cooperation.

The 23rd Session of the ECO Council of Foreign Ministers was held and adopted the Dushanbe Declaration (17 April, Dushanbe). The Declaration provides for further development of cooperation in transportation, energy, tourism, economy and social area, as well as in environmental conservation.

The International High-Level Conference on the International Decade for Actions “Water for Sustainable Development, 2018-2028” was held on 20-21 June, Dushanbe. See section [“Major events in the CA countries”](#) for more details.

The Tajik Minister of Energy and Water Resources Mr. Usmonali Usmonzoda took part and spoke at the Ministerial Conference of the 8 World Water Forum (19-20 March, Brasilia). The Head of Tajik Delegation was speaking about water issues in Central Asia and successes in reformation of the national water sector.

The Tajik delegation headed by Colonel Jamshed Makhmadzoda, Deputy Chairman of the Committee for Emergency Situations and Civil Defence under the Government of Tajikistan participated in the Regional Forum of the Heads of Emergency Agency of the Central Asia countries (27 April, Almaty). A range of projects on strengthening of regional cooperation in the CA countries in the area of disaster risk mitigation and emergency prevention and liquidation was discussed. Based on the results of the meeting, the final document was agreed.

The Ambassador Extraordinary and Plenipotentiary of the Republic of Tajikistan to the Russian Federation Imomuddin Sattorov in his speech at the II All-Russian Water Congress on 5-7 June told about international initiatives of Tajikistan as a country, which possesses advanced experience in water area, and on preparation to the International High-Level Conference on the International Decade for Actions “Water for Sustainable Development, 2018-2028”, as well as the main tasks and purposes of this Conference.

The UN Resident Representative of the RT Makhmadamin Makhmadaminov participated

in the opening ceremony of the Political High-level Forum on Sustainable Development under the aegis of UN's Economic and Social Council (ECOSOC). Mr. Makhmadaminov, as a Vice-President of the ECOSOC, chaired the interactive session "SDG 6 – Ensuring accessibility and sustainability of water and sanitation for all" (9 July, New York).

The President of Tajikistan Emomali Rakhmon participated in the Summit of the Heads of IFAS founder-state on 24 August in Turkmenbashi. For more details see section "[XII Summit of the Heads of IFAS Founder-State](#)".

The Tajik delegation participated also in the 12th Session of the SPECA Economic Forum (19 September, Almaty). The SPECA regional strategy, particularly, simplification of trade procedures, regional cooperation for achievement of the goals of sustainable trade and regulation of non-tariff trade measures were discussed during the session. The "SPECA National Strategy on Trade Mechanism" was drafted to develop trade cooperation and submitted to the Governments of SPECA member-states for agreement.

International Agreements:

The signing ceremony for the Agreement between the IFAD and the Government of Tajikistan on financing the Community-Based Agricultural Support Project in the amount of \$39.3 million was held on 8 February in Italy, Rome. The project aims to improve living conditions of more than 48,000 of low-income families in such towns and districts of Tajikistan as Devashtich, Shakhristan, Dusti, Jaikhun, Nurek, Rasht and Tajikabad.

Tajikistan and Belarus signed 15 documents on cooperation between various agencies of the two countries on 15 May in Dushanbe. Additionally, a plan of consultations between the Ministries of Foreign Affairs for 2019-2020 was signed. The parties considered a new package of cooperation documents signed during the official visit of the President of the Republic of Belarus to Tajikistan as an impetus for development and expansion of potential relations between the two countries.

Based on the results of inter-governmental meetings and negotiations between the RT and the Russian Federation, a signing ceremony for bilateral documents was held on 31 May in Dushanbe. During the event, the parties addressed the issues of cooperation in the area of economy, trade, energy, agriculture,

industry, roads and transport, education and science, investments, public employment and others.

As part of the state visit of the President of India Ram Nath Kovind to Tajikistan, 10 new cooperation documents were signed on 8 October.

Particularly, the Heads of State have signed memorandums on cooperation between the governments of two countries in the area of disaster management and application of space technologies for peaceful purposes.

Sources:

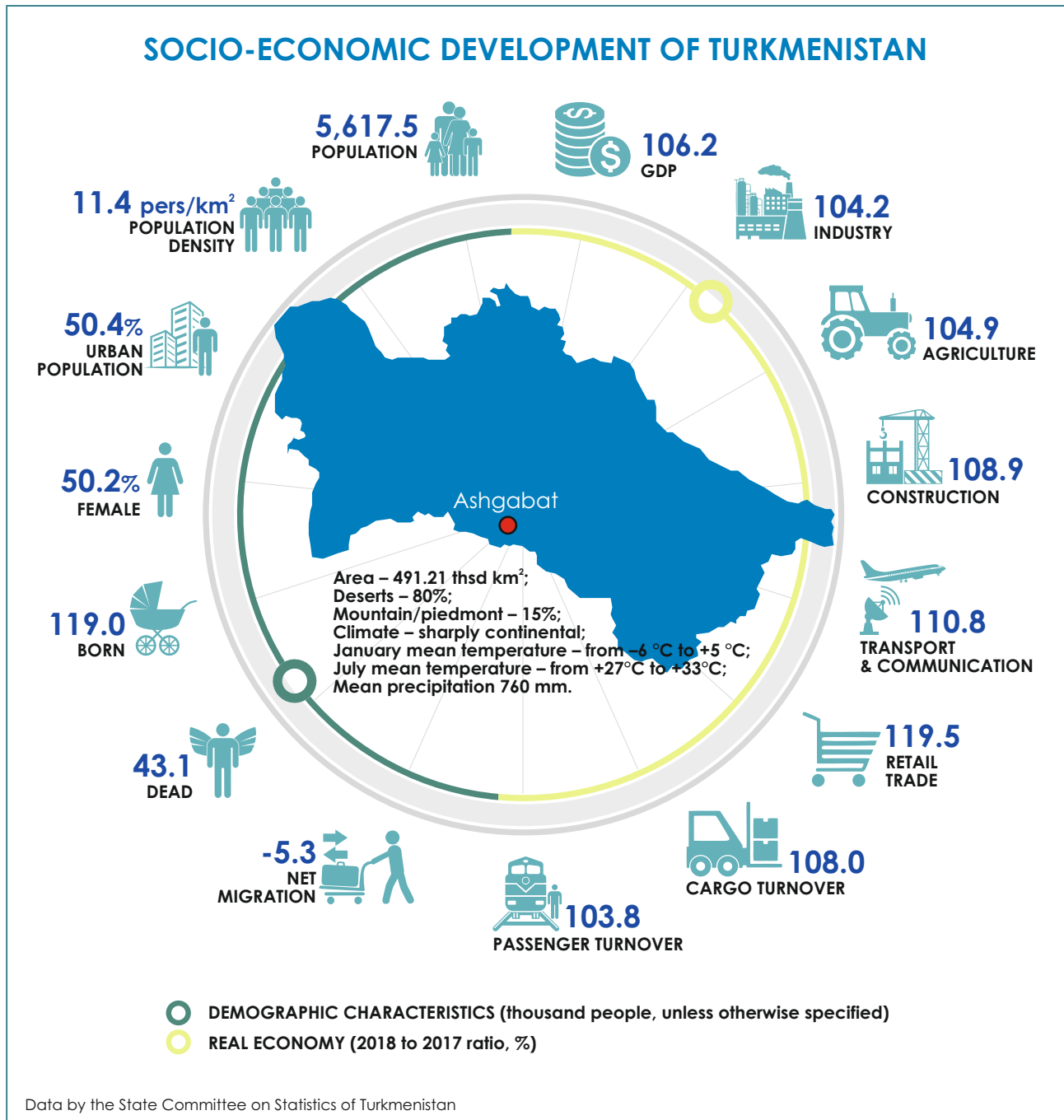
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5.4. Turkmenistan



General Information

Water resources. The total volume of water resources of Turkmenistan used by economic sectors is comprised of the surface runoff of the Amu Darya, Murgab, Tedjen, and Atrek rivers, as well as the small water courses of northeast slopes of Copetdag, and insignificant groundwater resources and collector-drainage waters. 95% of surface water in the water balance of Turkmenistan are formed outside the country and have a transboundary status. 88%

of all surface water in the country comes from the Amu Darya. The Karakum River plays an important role in meeting the needs for water. It is the biggest hydro-technical facility in the world (1,380 km in length). It irrigates approximately 1 million ha of lands. The unit water supply for population is 4,000 m³/per capita a year.

Energy. Energy sector is comprised of 9 gas-fired TPPs and one hydropower plant: Mary, Turkmenbashi (former Krasnovodsk), Abadan

(Bezmeinsk), Balkanabad (Nebitdag), Seyd, Ashgabat, Dashoguz, Avaz, Akhal and Gindukush HPP, which is the eldest in the energy history of Turkmenistan. The country is entirely self-sufficient in electricity and even exports it to Iran, Turkey and other countries. Energy potential is continuously developed: new power plants and transmission lines are constructed and existing energy facilities are reconstructed.

New Legislation

In 2018, 5 meetings of the National Parliament were held, 61 laws and 66 decrees of Mejlis were adopted. The following laws and regulations can be mentioned in water, agriculture and environmental spheres:

The Law on state regulation of agricultural development (No. 29-VI of 09.06.2018) specifies the main purposes and mechanisms of implementation of the National Agricultural Development Program covering the key areas of agriculture and forestry, food and goods production;

The Law on reclamation of land (No. 76-VI of 20.10.2018) defines legal, economic and institutional framework for reclamation of land and regulates relevant relations;

The Law on making changes and amendments to the "Law On environmental expertise" (No. 685-V of 05.01.2018, No. 54-VI of 09.06.2018) specifies that environmental expertise is based on the principle "...be bound by requirements of environmental safety while making an environmental expertise" and that "...state environmental expertise, public environmental expertise and independent environmental expertise, known as the environmental audit, are implemented in Turkmenistan...";

The Law on amending the Water Code of Turkmenistan ("Vedomosti" of the Mejlis of Turkmenistan, No. 4, 20.10.2018), according to which the executive branch of the government responsible for licensing of exploration, surveying and exploitation of water aquifers and permitting of well drilling for water abstraction "...defines the payment and charges and transfers it to its operating account in accordance with the procedures established by the legislation of Turkmenistan...";

The Law on making changes and amendments to the Land Code of Turkmenistan ("Vedomosti" of the Mejlis of Turkmenistan, No. 3-4, 01.12.2018) makes the amendment that land for

agricultural production shall be given for temporary use out of special land fund to joint stock companies, daikhkan farms and other legal entities of Turkmenistan. Provincial authorities shall approve the decision of the provincial Land Commission on the allocation of land plots for temporary use;

The Law on making changes and amendments to the Law of Turkmenistan on drinking Water (No. 104-VI of 01.12.2018), which makes amendments concerning the payment for water used by population for free within the established limits;

The Decree on further improvement of agricultural reforms (Khalk Maslakhaty of Turkmenistan, 25.09.2018) defines the key areas of activity aimed at improving the agricultural sector, increasing the number of private producers in agriculture and using land and water resources sustainably;

The Law on environmental audit (Mejlis of Turkmenistan, 02.03.2019) defines the legal and institutional framework for environmental audit and is aimed at increasing environmental soundness and efficiency of economic entities.

Water Sector

Geographical location and natural and climatic conditions of Turkmenistan predetermine that water resources are limited. The decline in water resources makes it necessary to reconsider irrigation methods and improve productivity of irrigation systems through their modernization.

Among the **state governance bodies dealing with water use and protection** in Turkmenistan are the Cabinet of Ministers of Turkmenistan, the Ministry of Agriculture and Water Management, the State Committee of Turkmenistan on the Environmental Protection and Land Resources, the State Concern "Turkmengeologiya", the National Institute of Deserts, Flora and Fauna, the Ministry of Energy, and the Ministry of Utilities.

The Murgab River Basin Council, the first water management organization at basin level, has started its work in Turkmenistan. The small Basin Council includes representatives of water-management organizations, velayat (province) and etrap (district) authorities, and daihan agricultural and water associations. It has been planned to reconstruct some sections of the oldest national water system – the Sariyazin

reservoir and its dam, as well as the Iolotan, Kolkhoz bent and Gindukush hydroschemes.

The work on **construction of new reservoirs and extension of existing ones** is underway. Dozens of structures were constructed for the water reservoir named "15 years of independence in Turkmenistan". Reconstruction of the first connecting canal, which takes its origin in the Amu Darya has been completed. The length is more than 40 km and the width is 120 m. The canal has allowed increasing the flow capacity to 400 m³/s. At present, the reservoir regulates river flow to ensure normal flow of the Amu Darya water along the Karakum River to the valleys of Murgab and Tejen, the Priko-petdag plain and the western Turkmenistan. The manmade lake delivers clear water to the river within the pre-set parameters. Construction of the second extension of the reservoir, with the storage capacity of more than 3 billion m³ was started. The construction of Turkmen Lake "Altyn Asyr" is still underway to normalise operation of drainage systems, lower the water table, improve conditions of land and enrich the desert biodiversity.

As part of the **"Master Plan on drinking water supply to settlements"**, staff of the hydrogeological expedition from the State Corporation "Turkmengeologiya" has completed work in Akhal veloyat on exploration of groundwater and accurate determination of their reserves. The regime, balance and salinity of groundwater are under continuous observation. 90 new wells, 100 to 150 m deep, are ready for exploitation; 200 wells were reconstructed to supply water to district centers and daihan associations in the territory from Serakhs to Bami.

A system of water treatment facilities was put into operation in Takhtabazar district of Mary province. Water treatment facilities are also constructed in Khalach, Deinau, Sayat and other districts of Lebap province. Water conduits are laid together with the construction of drinking water plants.

The Kaahka-Khivabad gravity-flow conduit, about 15 km long, has been opened to regulate water supply for agriculture, drinking and household needs. On a daily basis, the conduit delivers 14,256 m³/day (165 l/s) from the Laiynsuv River.

To build capacities of water-management organizations, provincial and district authorities and daihan associations for efficient water management and application of up-to-date technologies, a range of workshops, trainings,

round-tables and webinars was held as part of on-going projects (see Section ["Regional and National Projects"](#) below).

Agriculture

The State agrarian policy of Turkmenistan is aimed at ensuring abundant food, stable growth in agricultural production and output, and building capacities of daihan associations, lease holders and entrepreneurship.

Agricultural producers are provided with various state benefits, including those oriented at the reduction of production costs. For the financial support to agricultural producers relevant banks of Turkmenistan are allowed to provide concessional loans to daihan associations and farms, agricultural joint stock companies, specialized research institutes, land owners and lease tenants, and private entrepreneurs working in the agro-industrial sector. The agricultural producers can receive a concessional loan for 10 years at annual 1% interest rate to buy agricultural equipment, mechanisms and tools as well as excavators and bulldozers, and water-saving equipment. Also, they can receive a concessional loan for the period of 10 years at 5% interest rate for the projects focused on the development of cattle farming, poultry, processing and related services.

The size of special land funds dedicated for agricultural use and comprising the agricultural land of daihan associations was defined and approved. The plots of land are provided to joint stock companies, daihan farms and other legal entities and people for the period up to 99 years.

The minimum payment for land was set for farmers and they are totally tax exempted. Machinery, seeds, mineral fertilizers, irrigation water and other inputs are provided on concessional terms. Since 5th of October 2018, a credit line has been opened for settlement of accounts with cotton producers. Depending on cotton variety, the initial amount of 60 or 80 tenge per 1 kg of raw cotton is paid to producers.

Daihan farms and agricultural joint stock companies are granted the right to keep the excessive production after they meet the contractual obligations and sell it at their own price.

Huge investments are made in the construction of new cattle and poultry factories, greenhouse farms, agro-industrial processing

enterprises and refrigerator warehouses in the country. The State buys modern agricultural equipment and machines: grain-harvesting and cotton-picking combines, various types of tractors, and so on from the leading world producers, such as [John Deere](#), CLAAS and others.

Moreover, particular attention is paid to diversification of agriculture, promotion of innovations in agricultural production, sustainable methods of irrigation and crop production, and agro-biotechnology and seed farming.

Energy

The energy sector of Turkmenistan keeps developing and increasing its generating capacity. While constructing energy projects, special attention is paid to the environmental safety of energy structures and their provision with up-to-date equipment. "The Concept of Turkmenistan on the energy development for the period of 2013-2030" is under implementation. As part of the Concept, outdated energy structures undergo reconstruction and new structures will be built and put into operation. The first in Turkmenistan combined-cycle thermal power plant was put into operation in Mary province. This power plant is environmentally friendly, almost waste-free and resource saving. The fuel sources of the plant include gas and steam. At the same time, its performance will increase 1.5 times: from 34.2 up to 57%, and harmful emissions into the atmosphere will be three times less. Fuel consumption will also be reduced.

International energy collaboration is a priority for Turkmenistan:

- As part of the International Energy Forum, International Conference "The main directions of energy development in Turkmenistan" and the 11th International Exhibition were organized (6-8 September, Ashkhabad).
- The Agreement on the transmission line Turkmenistan-Afghanistan-Pakistan (TAP) was signed between the Ministry of Energy of Turkmenistan and the Ministry of

Energy and Water of the Islamic Republic of Afghanistan (11 October, Ashkhabad);

- The Turkmen delegation participated in the work of the [29th session of the Energy Charter Conference](#). Based on the results of the Conference, the Bucharest Declaration was adopted (27-28 November, Bucharest).

Environment and Climate Change

Protection of the nature and environmental friendliness are the priority directions of the national policy.

The National strategy of Turkmenistan on biodiversity conservation for the period of 2018-2023 was developed (the document is at approval stage now). The Strategy defines the key areas of work, based on commitments made under the Convention on Biological Diversity. The main goal of the Strategy is to achieve a sustainable balance between economic development and environmental continuity by 2025. Preparation of the 6th National report under the Convention on Biological Diversity was started.

The review of the **National Strategy of Turkmenistan on climate change** under the international obligations of Turkmenistan on implementation of the UN Framework Convention on Climate Change (UNFCCC), the Paris Agreement and in the context of SDGs was started. The Turkmen delegation participated in the [Central Asian Conference on climate change](#) (24-25 January, Almaty) and in 7th¹¹ and 8th¹² meetings of the EU-CA Working Group on environment and climate change (6-7 February, Brussels; 7-8 June, Tashkent).

The country is consistently moving to environmentally friendly and resource-saving technologies in industry, including oil and gas, energy and chemical sectors.

Turkmenistan has joined the UN initiative "[Sustainable cities](#)", particularly started the project "[Sustainable development of cities in Turkmenistan: comprehensive development of green cities in Ashkhabad and Avaz](#)" with the support of GEF and UNDP.

¹¹ Resolution of the 7th Meeting of the EU-CA Working group on environment and climate change http://wecoop2.eu/sites/default/files/documents/7WGECC/Newsletter%2520FEB%25202018_EN.PDF

¹² Resolution of the 8th Meeting of the EU-CA Working group on environment and climate change <https://wecoop2.eu/sites/default/files/documents/8WGECC/Summary%20by%20the%20Chair%208th%20WGECC%20final%20IMELS%20EN%201207-6.pdf>

The National Forestry Program is on-going. As part of the Program, the workshop “Forest biodiversity conservation in the context of climate change” and greening campaigns were organized.

The International Science-to-Practice Conference “Turkmenistan in the heart of the Great Silk Road – a region of ecological well-being” was held on the occasion of the World Environment Day (5 June, Ashkhabad).

Turkmenistan Chairmanship in IFAS

A meeting of the IFAS Board was held at the level of the Deputy Heads of Government of Turkmenistan, Kazakhstan, Tajikistan and Uzbekistan. The work plan of the EC IFAS for the period of Turkmenistan chairmanship was discussed. The Plan includes the development of the UN special program’s project for the Aral Sea basin, based on negotiation among the founder-states of IFAS, ASBP-4; the formation of national and regional expert groups for consultations with international organizations and partners to support the development of REPSD CA, as well as the matters related to preparation of the Summit of the Heads of IFAS Founder-State (30 January, Ashkhabad).

Prior to the Summit, the [74th meeting of ICWC](#), the ICSD work meeting (22 August, Turkmenbashi), and the extraordinary meeting of the IFAS Board (23 August, Turkmenbashi) were held.

The Summit of the Heads of IFAS founder-state took place in the National Tourist Zone “Avaza” on 24th of August. The Heads of State have underlined the importance of the development of ASBP-4 and REPSD CA. Also, they found necessary to consider a possibility for the development of the UN Special Program for the Aral Sea Basin and requested the EC IFAS to hold consultations on this matter with the region’s states and the UN member states and its agencies. The IFAS Board was requested to develop a Plan of Measures for implementation of the reached agreements and to ensure control over its fulfilment. Based on the results of the Summit, a Joint Communiqué was adopted. (For more details see section 3.1.2. “[XII Summit of the Heads of IFAS Founder-State](#)”).

Following the Summit, the Ministry of Foreign Affairs of Turkmenistan had a briefing with participation of the heads of EC IFAS, diplomatic missions, representatives of international and non-governmental organizations, environmentalists and media (27 August). The partici-

pants underlined the importance of the Summit and expressed confidence that proposals and initiatives mentioned in the Joint Communiqué would determine the key directions of IFAS activity and would be reflected in practical steps for environmental improvement in the region.

Cooperation on the Caspian Sea

The delegation of Turkmenistan took part in the following events: First International Conference “Caspian Sea in XXI century: Cooperation and Security” (28 September, Astana); V Summit of the Heads of Caspian State (12 August, Aktau); Session of the Coordination Committee on Hydrometeorology of the Caspian Sea (CASCOM) (30-31 October, Ashkhabad); meetings of the working groups on the development of environmental documents (25 October, Ashkhabad); workshop “The Caspian Sea – Sustainable Development and Management” (5-6 March, Tourist zone “Avaza”); applied conference and festive events linked to the Caspian Sea Day (12 August, Tourist zone “Avaza”). Turkmenistan is continuing scientific and environmental activities on the Caspian Sea. (For more details see section 12.2 “[Caspian Sea: Special Legal Status](#)”)

SDGs in Turkmenistan

Turkmenistan was the first country, which started consultations on adaptation of SDGs to the national context.

The National Working Group on SDG implementation in Turkmenistan together with the UN held a working meeting to discuss the results and recommendations of the UN mission for implementation and acceleration of SDGs (30 March, Ashkhabad). During 2018, meetings, roundtables, and an International Conference dedicated to SDG financing and other events were organized together with the UN.

Since 1st of October, the UN Office in Turkmenistan, the SDG Center and the Ministry of Foreign Affairs of Turkmenistan have started the SDG Month in Ashkhabad: trainings to raise awareness about SDGs; the workshop on financing the Global Agenda; student debates; UN model and the SDG dance festival. Additionally, the Competition “SDG Young Ambassadors” was launched.

The work on the volunteer national review and the report on implementation of the Agenda 2030 in Turkmenistan is underway as

preparation for the High-level Political Forum to be held in July 2019.

The Ministry of Foreign Affairs of Turkmenistan organized a SDG roundtable (19 December), where practical implementation of SDGs was discussed. *“The year 2018 laid a foundation for implementation of 148 out of 169 tasks under SDGs, which would be achieved by Turkmenistan over the midterm in three key strategic areas – economy, social sector, and environment.”*

Regional and National Projects

The Project [“Integrated natural resources management in drought-prone and salinized rural landscapes in Central Asia and Turkey”](#) (FAO, GEF) is aimed to reduce risks and vulnerability, increase resilience of rural communities to droughts and salinization and adaptation to them. The project is implemented in three pilot areas in Turkmenistan, characterized by different soil and climatic conditions and covering desert pastures, forests, irrigated and rainfed land. Project activities are to promote achievement of SDGs and implementation of international obligations by Turkmenistan on three global environmental conventions – on combatting desertification, biological diversity, and climate change.

As part of the project “Supporting climate-resilient livelihoods of rural communities in dry regions of Turkmenistan” (UNDP, GEF), the following actions were undertaken in 2018:

- organization of resource centers to provide daikhans with information and consultation support;
- allocation of funds for modern irrigation technologies, equipment, machinery and construction of transmission lines in livestock farm “Karakum” and daikhan association “Parakhat”;
- learning of AquaCrop, ClimWat, and EToCalculator software models; assistance to pilot farms in four districts of Lebap and Dashoguz provinces in preparation and implementation of adaptation plans for agricultural production and water management;
- elaboration of proposals on changes and amendments in the laws of Turkmenistan on daikhan associations and on daikhan farms;

- two-day practical trainings in land levelling using laser technology in pilot sites of Lebap and Dashoguz provinces; training in crop irrigation scheduling using the FAO methodology.

As part of the project [“Energy efficiency renewable energy for sustainable water management in Turkmenistan”](#) (UNDP, GEF), the following actions were undertaken in 2018:

- demonstration activities in the project site in Geoktepe, where farmers were presented the innovation laser equipment for land leveling; two-day training in handling geodesic equipment of global positioning system (GPS), and a workshop for irrigators;
- gravity-flow Kaahka-Khivabad conduit, 15 km long, was launched; a roundtable was organized to present results, environmental benefits and recommendations on operation of gravity-flow conduits.

Within the frame of [“Smart Water Project”](#) (USAID–CAREC) in 2018, a basin council was established and its meetings were organized. In addition, the CAREC’s information and training class was launched at the National Institute for Deserts, Flora and Fauna of Turkmenistan.

As part of the [“Central Asia Nexus Dialogue Project: Fostering Water, Energy and Food Security Nexus Dialogue and Multi-Sector Investment”](#) (CAREC – IUCN, with the financial support of EU), a range of events of the Interdepartmental Working Group on the development of multi-sector investment projects for achievement of water, energy and food security in Turkmenistan was held.

Foreign Policy and International Cooperation

769 delegations of different levels visited Turkmenistan in 2018 through the Ministry of Foreign Affairs, and 608 Turkmen delegations had abroad visits. Multiple events were organized in Turkmenistan and abroad: conferences, meetings and other events. In total, 58 meetings with representatives of foreign countries and international organizations were held over 2018. Turkmenistan has joined 5 international conventions.

In 2018, Presidents of Afghanistan (February); Iran (March); Kazakhstan (August); Kyrgyzstan (August); Tajikistan (August), Uzbekistan (August) and Azerbaijan (November) had official and working visits to Turkmenistan.

The President of Turkmenistan made state, official and working visits to Kuwait and United Arab Emirates (March), Uzbekistan (April), Tajikistan (June), Tatarstan (July), Kazakhstan (August), and Russia (August, December).

The priority areas of the Turkmenistan foreign policy include contribution to peace, stability and safety, as well as progressive achievement of the UN SDGs and strengthening of friendly relations and cooperation in the region and beyond.

Involvement in UN Activity

Based on the initiative of Turkmenistan, the draft resolution "Cooperation between the United Nations Organization and the International Fund for saving the Aral Sea" (12 April, New-York) (see section "[General Assembly](#)") was adopted at the [82nd meeting of the 72nd UN GA Session](#). Turkmenistan was elected a member of the UN Economic and Social Council (ECOSOC) during the [96th meeting of 72nd UN GA Session](#) for 2019-2021 (13 June, New York). The Turkmen delegation participated in the work of the [High-level Political Forum](#) under the ECOSOC aegis on the theme "Transformation towards sustainable and resilient societies" (9-13 July, New-York).

The President of Turkmenistan speaking at the 73rd UN GA Session voiced the priority positions of the country on topical regional and global challenges as well as constructive initiatives aimed to further enhance and deepen fruitful international cooperation (25 September-1 October, New York). The President mentioned the issue of saving the Aral Sea as one of the most important for cooperation between the countries in the region and called the international community for joint measures and support of the Turkmenistan's initiative on the development of the UN Special Program for the Aral Sea Basin. He also proposed to consider the Aral Sea problem as a special area of the UN's activity (for more details see section "[General Assembly](#)"). During the visit, the Head of State met Antonio Guterres, the UN Secretary General. The parties paid particular attention to contribution of the neutral Turkmen State to settlement of situation in Afghanistan and resolution of the Aral Sea problem.

Cooperation with the EU

The cooperation between the EU and Turkmenistan is continued on a regional scale, i.e. with participation of all five Central Asian countries. The 14th EU-Central Asia ministerial meeting has become the key one among the series of negotiations, meetings and other events related to the development of the EU Strategy in the region. Based on the results of the meeting, a Joint Communiqué was adopted¹³ (23 November, Brussels). Following the meeting of the EU-Turkmenistan Partnership Council, EU made a decision to open in Turkmenistan its diplomatic mission in 2019.

The Minister of Foreign Affairs of Turkmenistan Rashid Meredov had negotiations with Peter Burian, EU special representative in the CA countries. A wide range of matters of mutual interest, such as education, legislation, transport and energy, water management and environment, including climate change was discussed (23 May, Ashkhabad).

Major international events

Turkmenistan delegation participated in the following events:

Central Asian International Environmental Forum (5-8 June, Tashkent). During the closing ceremony, the representative of Turkmenistan Mergen Jusupov read the message of Batyrmurad Orazmuradov, Chairman of the State Committee on Environmental Protection and Land Resources. "This Forum also has become an evidence of the efforts on developing close cooperation in environmental conservation", was underlined in the message. The main result of the Forum was the impetus for active cooperation.

International High-level Conference on International Decade for Actions "Water for Sustainable Development", 2018-2028 (20 June, Dushanbe). Speaking at the Conference, the President Gurbanguly Berdymuhamedov stated that water issues, including political, economic, social aspects, require international consensus and consolidation of efforts of the states all over the world. Moreover, local interests and benefits should give way to the understanding of global goals and priorities and

¹³ Text of the Joint Communiqué of the Ministerial meeting "EU-Central Asia"
https://eeas.europa.eu/delegations/uzbekistan/54354/joint-communication/C3%A9-european-union-%E2%80%93-central-asia-foreign-ministers-meeting-brussels-23-november_en

the elaboration of a common long-term water strategy. The President of Turkmenistan has applied to the CA states and the UN Secretariat to consider the establishment of a special UN structure on water issues for CA.

The regional meeting on strengthening multi-sector water cooperation and bringing water higher in the sustainable development agenda, where the issues of transboundary water management were discussed (12-13 July, Almaty). The participants addressed the existing problems and possible ways of developing multi-sector water cooperation at the regional level and discussed how to bring water higher in the SDG agenda, as well as developed regional proposals that could be supported under the future program of work of the International Water Assessment Center (IWAC).

Representatives of small basin councils took part in the first Forum of small basin councils of the CA and Afghanistan (26 November, Bishkek). The Forum brought together representatives of small basin councils, relevant ministries and agencies in the region, as well as international organizations and projects.

Cooperation with ADB

ADB takes active part in financing of investment programs and projects in Turkmenistan. The work plan proposed by the Bank provides for investments in the Turkmen economy for the period of 2019-2021 in the amount of about \$1 billion. It is expected that during implementation of the projects this volume can be considerably increased.

The President of Turkmenistan during the meeting with the ADB President Takehiko Nakao (14 November, Ashkhabad) proposed the ADB to consider the possibilities of investing in water treatment plants.

Cooperation between ADB and Turkmenistan is maintained also under the Central Asian Regional Economic Program (CAREC). [17th ministerial conference of the CAREC Program](#) was held with participation of representatives of the CAREC Program, ADB, WB, Islamic Development Bank, CAREC Institute, EU, EBRD, USAID (15 November, Ashkhabad).

Sources:

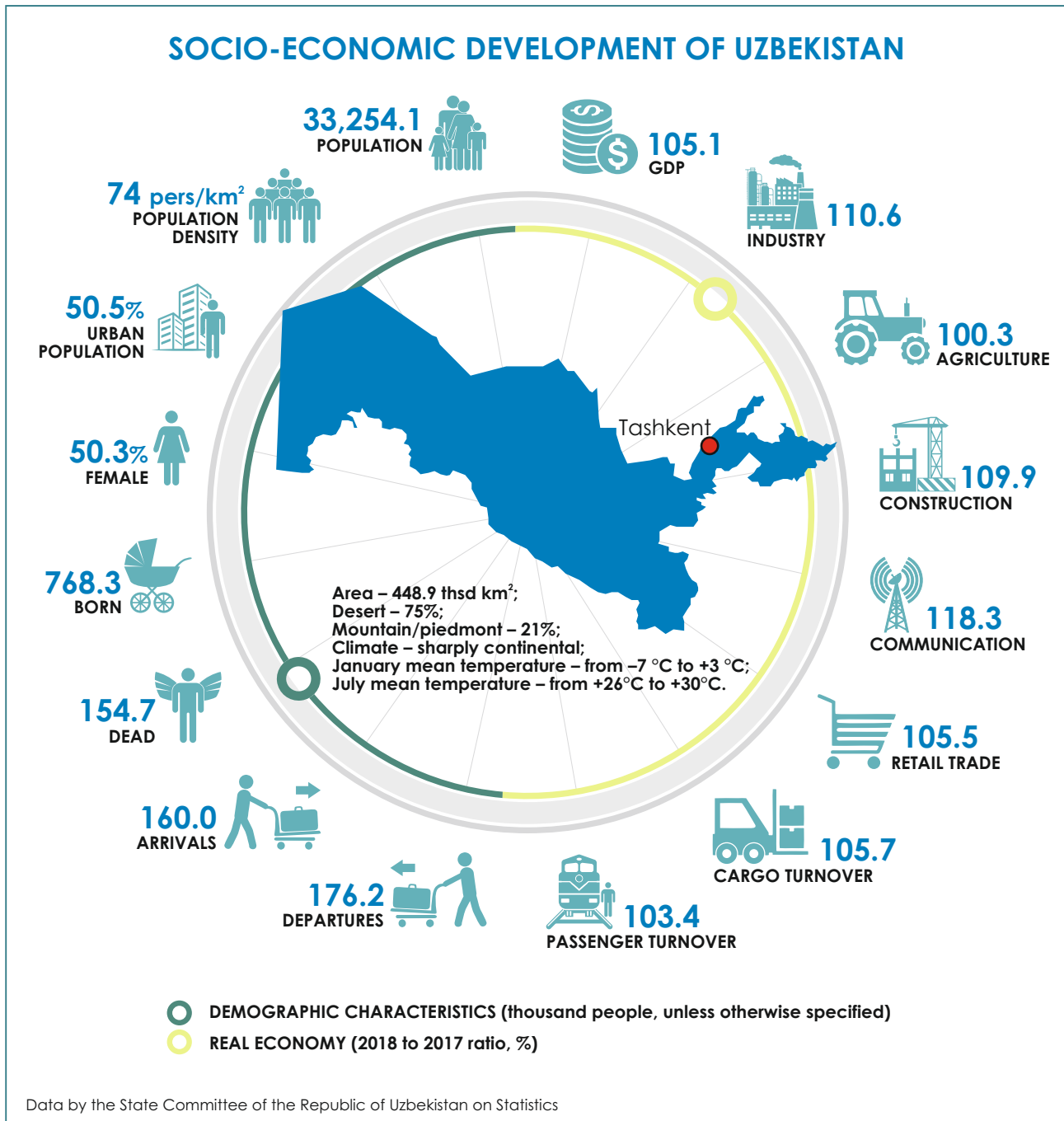
The official web-sites:

Ministry of Foreign Affairs (www.mfa.gov.tm);
The Ministry of Justice (<http://minjust.gov.tm>);
The Central Bank (www.cbt.tm/en/index.html);
EC IFAS (<http://ecifas.gov.tm>).

Information agencies and sites:

<http://tdh.gov.tm/en/>;
www.turkmenistan.gov.tm

5.5. Uzbekistan



General Information

Water resources. The water resources of Uzbekistan consist of renewable surface water and groundwater of natural origin as well as return water from anthropogenic uses (sewage and drainage waters). Water resources are formed both in transboundary basins and in local surface water sources and aquifers. There are 17,777 natural watercourses in Uzbekistan, of which 9,930 are in the Amu Darya Basin and 4,926 are in the Syr Darya Basin. More than 500

lakes are located in mountain river-valleys, and Aydar-Arsanay is the biggest lake system. Glaciers are situated in the upper reaches of some rivers, mainly, in the catchment of the Pskem River, with the average area of one glacier at 0.29 km². Water resources are formed mainly through melt water: 60% in the Syr Darya and the Amu Darya basins. Rain and glacial water are the additional sources of water: 15 and 25%, respectively, in the Amu Darya Basin; and, 25 and 15%, respectively, in the Syr Darya Basin. The total regional groundwater reserves

are estimated at 18.45 km³. The total usable groundwater resources amount to 7.8 km³.

The Ministry of Water Management (surface water) and the State Committee on Geology and Mineral Resources (groundwater) are the **designated state agencies for water use regulation**.

New Legislation

Resolution of the President of Uzbekistan “On measures for improvement of water use efficiency” (No. PP-3823 of 02.07.2018) was adopted and set a new tax for water use (from surface and groundwater sources) by entities of all economic branches, industry, communal services, etc.

Several legal acts have been amended and changed. Those are aimed at bettering land legislation (No. ZRU-487 of 28.06.2018) and improving a mechanism for efficient use of cropland (No. ZRU-506 of 13.12.2018); additional measures are planned to speed-up the process of horticulture development (No. UP-5388 of 29.03.2018), development of water supply and sanitation systems (No. PP-4040 of 30.11.2018), support accelerated development of silk industry (No. PP-3910 of 20.08.2018), fisheries (No. PP-3657 of 06.04.2018), and karakul sheep breeding (No. PP-3603 of 14.03.2018); radically improve the financing system of raw cotton and cereals production (No. PP-3574 of 28.02.2018); create additional conditions for development of greenhouse farming (No. PP-4020 of 28.11.2018); as well as measures for achievement of country's food security (No. PP-5303 of 16.01.2018) and organization of activity of the Inspection for control over agro-industrial production and achievement of food security at the Prosecutor General's Office of Uzbekistan (No. PP-3699 of 07.05.2018).

The President of Uzbekistan has approved the Strategy of Innovation-Driven Development in Uzbekistan for 2019–2021 (No. UP-5544 of 21.09.2018). The document sets the main tasks of the Strategy, approves the Roadmap for implementation of the Strategy and the target indicators of innovation development of Uzbekistan up to 2030. The document also gives the directive to provide regularly necessary data and indicators for inclusion of Uzbekistan into the rating of the Global Innovation Index. A special Commission for proper and timely implementation of the Strategy was established as well.

Implementation of National Strategies and Programs in 2018

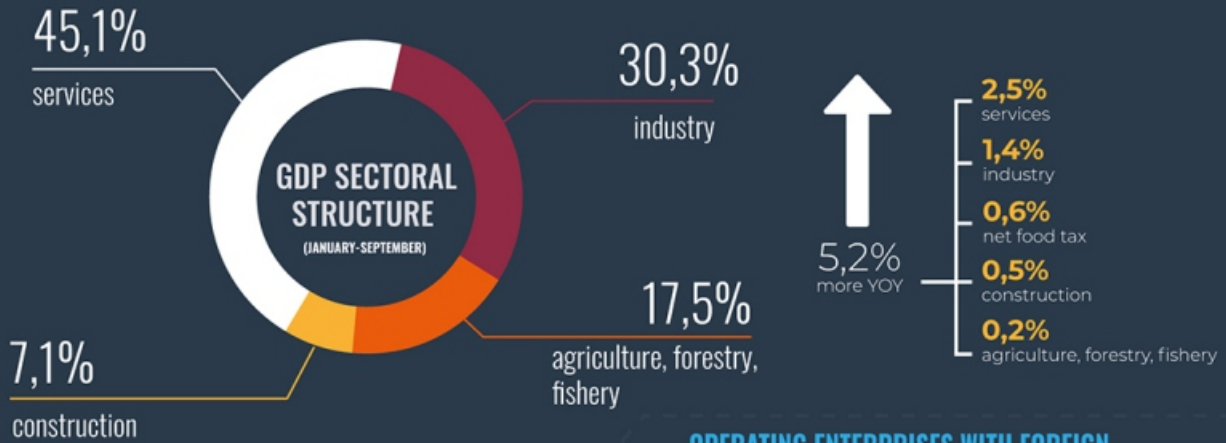
On **implementation of the Strategy of Actions on five priority development directions in the Republic of Uzbekistan for 2017-2021**, approved in 2017 (UP-4947 of 07.02.2017).

2018 – announced as the Year of support of active entrepreneurship, innovative ideas and technologies – is marked with extensive measures to adopt latest scientific achievements, innovative ideas and technologies in national economy. For putting of this State Program in place, 76,000 projects were implemented in the amount of 21 trillion sum and \$1 billion. According to the programs “Obod Kishlok” and “Obod Mahalla”, 3 trillion sum was allocated to create better living conditions in more than 400 villages and makhalyas of the country. About 2 trillion sum was allocated for more than 2600 business-projects at local levels as part of the Programs “Every family – entrepreneur” and “Youth is our future”. A Concept for the improvement of taxation policy of Uzbekistan was adopted. The Concept is aimed at encouraging economic development, improving business environment and investment attractiveness, increasing income of population and lowering tax burden on business. For example, the reduced rate of unified social tax down to 12% and cancelled obligatory payments charged on profit of legal entities to the state special-purpose funds have allowed enterprises to keep their extra-profit. In 2018, agreements for the amount of \$50 billion were reached under investment projects. As part of priority 3 “Economy development and liberalization”, in order to take systematic measures for mitigation of negative effects of global climate change and drying up of the Aral Sea, the UN [Multi-Partner Human Security Trust Fund](#) for the Aral Sea Region was launched, and the [International Innovation Center for the Aral Sea Basin](#) was established at the President of Uzbekistan.

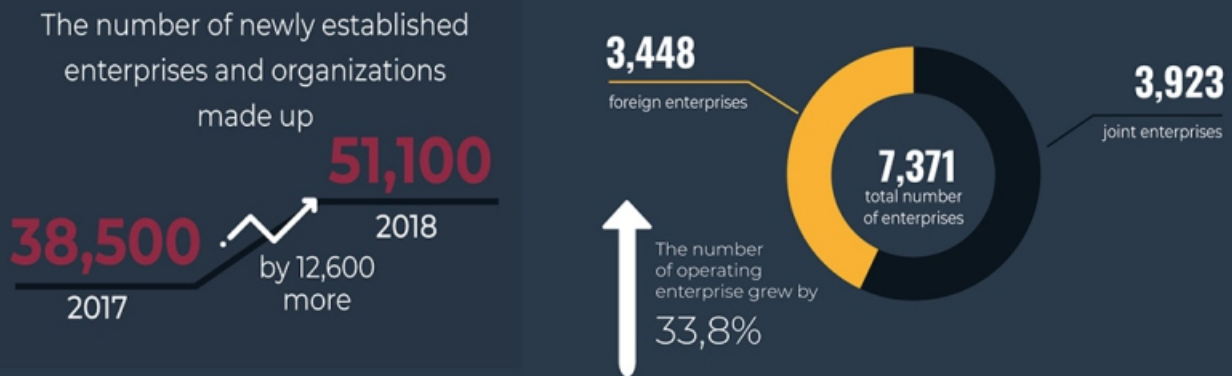
On implementation of initiatives and proposals of the President of Uzbekistan voiced during the Summit of the IFAS Heads of Founder-State. By the order of the Cabinet of Ministers of Uzbekistan, No. 965-F of 16.11.2018, the Action Plan (“Roadmap”) was approved. This Plan lists national programs and projects. Within the framework of the Roadmap, the following actions were taken in 2018:

- The UN Multi-Partner Human Security Trust Fund for the Aral Sea Region was established (See details in section “[UN Development Program](#)”);

STRATEGY OF ACTION: THE MEASURES TAKEN TO BOOST ECONOMY AND SUPPORT ENTREPRENEURSHIP IN 2018



OPERATING ENTERPRISES WITH FOREIGN SHARE (IN JANUARY-NOVEMBER), BY UNITS



THE SHARE OF NEWLY ESTABLISHED SMALL ENTERPRISES RANGING BY ECONOMIC ACTIVITY



THE NUMBER OF NEWLY ESTABLISHED SMALL ENTERPRISES WITH FOREIGN SHARE RANGING BY COUNTRIES (IN JANUARY-NOVEMBER)



- The work was started on preparation to and organization of the international high-level conference under the aegis of the UN – “Prearalie – the area of environmental innovations and technologies”;
- The Concept for “Prearalie – the area of environmental innovations and technologies” is under development;
- The resolution “On the establishment of International Innovation Center for the Aral Sea Basin at the President of Uzbekistan” (No. PP-3975 of 16.10.2018) approves the establishment of the Center, with the scientific and technical support of the Islamic Development Bank and the International Center for Biosaline Agriculture (ICBA), and sets tasks and directions of the Center’s activity. The resolution also approves the establishment of a special Fund for innovation support in Prearalie. During the International Forum “Innovative approaches for promotion of sustainable management and social stability in the Aral Sea Basin” dedicated to the Aral Sea problem, the Memorandum of Understanding was signed between the Ministry of Innovation Development and the ICBA (16-18 October, Samarkand). See more about activities of the Center at <https://iic-aralsea.org>;
- Afforestation is undertaken on the dried bed of the Aral Sea (see section “[Afforestation on the bed of the former Aral Sea in Uzbekistan](#)”);
- Additional support was got for the Project “Creation of small local water bodies in the Amy Darya Delta”.

Reforming Public Agencies

The Ministry of Water Management was established in Uzbekistan. According to the Decree of the President of Uzbekistan “On arrangements for thorough improvement of the state administration system in agriculture and water management” (No. UP-5330 of 12.02.2018), on the base of the Ministry of Agriculture and Water Resources of Uzbekistan (MAWR) two separate ministries - the Ministry of Agriculture (MAC) and the Ministry of Water Management (MWM) – were established. The following institutions were also formed: Inspection for control over agro-industrial production and achievement of food security at the Prosecutor General’s Office; Agricultural and Food Development Fund at the

MAC; Water Development Fund at the MWM; Agriculture and Food Research and Development Center at the Academy of Sciences of Uzbekistan. The State Bread Inspection at the Cabinet of Ministers, Chief State Inspection for supervision over machinery and equipment, Chief State Inspection on livestock breeding, Republican Water Inspection “Uzsuvnazorat”, State Center on certification and control over the quality of seeds “Uzdavurugnazoratmarkaz” were eliminated.

According to the Decree of the President of Uzbekistan “**On measures for thorough improvement of the state administration system in agriculture and water management**” (No. UP-5418 of 17.04.2018), the Agency for Agro-Industry and Food Projects was established as the legal successor of the Agency for Rural Re-structuring and the Center for Agriculture and Water Investment Projects.

Since January 1, 2019, **the Irrigated Land Reclamation Fund at the Cabinet of Ministers of Uzbekistan was abolished.** Its functions on formulation of sectoral development programs and as the client for reconstruction and construction of drainage structures, repair and rehabilitation of main (inter-provincial) collectors were transferred to the Ministry of Water Management. The functions on financing of and getting agreement on targeted programs on reconstruction and construction, repair and rehabilitation of drainage systems were transferred to the Ministry of Finance and to the Prearalie Region Development Fund at the Ministry of Finance, which should finance the Prearalie Development Program for the state budget (No. PP-4086 of 26.12.2018).

Water Sector

At present, the total annual amount of water used in Uzbekistan is about 55 km³, including approximately 50 km³ for irrigated agriculture and 3.5 km³ for household and drinking needs of urban and rural population.

Efficient use of land and water resources based on advanced technologies and wide adoption of water-saving technologies in agriculture are mentioned among the main tasks for 2019 in the President’s Message to the Oliy Majlis (Supreme Council). The Cabinet of Ministers is to develop a Roadmap for large-scale adoption of water-saving technologies in agriculture. In 2019, the Ministry of Water Management together with the experts from CA countries is to develop proposals on the improvement of water use in Central Asia.

In 2018, farms “Ishtihon Nurli Davr” (Ishtyhan District) and “Marokand Klaster” (Narpai district), as well as the Uzbek-Chinese joint venture “PengSheng” (Syr Darya district) implemented drip irrigation projects that covered more than 200 ha. This allowed achieving crop yields of 40-45 centner/ha, which is 1.5-1.7 times higher than the average yield of raw cotton in Uzbekistan, and saving water.

Resolution of the Cabinet of Ministers “On measures for adoption of modern information-communication and innovative technologies in the water sector” (No. PKM-714 of 10.09.2018) was approved. The Resolution sets innovation measures that will be financed through donors' funds. Modernization in the water sector will be based on four main directions: adoption of the on-line system for collection of data on water discharge and other indicators of waterworks facilities, reservoirs, main canals and other important water structures; application of modern technologies and software for crop irrigation and efficient water use; organization of on-line monitoring over energy consumption and water management at pump stations that belong to the Ministry of Water Management; organization of water inventory using modern information and communication technologies and development of mobile applications. By mid-2019, it is planned to develop and put in place a mobile application for public use which would allow receiving knowledge and information on new water-saving technologies, including drip irrigation.

The Resolution of the President “On urgent measures for creation of favourable conditions for wider application of drip irrigation for production of cotton” (No. PP-4087 of 27.12.2018) was adopted. The document sets the priority directions for further expansion of drip irrigation technology for production of cotton, adopts a “Roadmap” for implementation over 2019-2020. It is tasked to form working groups for promotion of water-saving irrigation technologies and contribution of concrete proposals on a new enterprise in Kashkadarya province for manufacturing of drip irrigation systems and spare parts for them. To support cotton producers who adopted drip irrigation and the producers of drip irrigation systems, the subsidies for introduction of technologies of drip irrigation in the amount of 8 million sum per 1 hectare of cropped area are allocated; the costs related to payment of 10% points of the credit interest rate set by a commercial bank are covered by the state; import contracts are exempted from expertise and registration; spare parts and raw materials become free from custom duties up to 1 January 2021.

In the near-term, Uzbekistan plans to build seven large reservoirs at the total capacity of **0.045 km³**: Parkentsoy, Kizilsoy and Toshtepa in Tashkent province; Karman in Farish district of Jizzak province; Guldara and Ayakchisoy in Kashkadarya province; Bulungur in Samarkand province. In 2019, it is planned to allocate 1.7 trillion sum from the state budget and \$84 million from international financing institutions for reclamation of irrigated land.

Drinking Water Supply

Currently, 65% of population has access to improved drinking water supply and 15% of population uses sanitation facilities. Water meters are installed at 43% of households, 94% of wholesale customers and 10% of water intakes. Emergency repairs are needed for 23.7 km of drinking water supply networks (40%), 2,000 km of sewage networks (27%), and 3,598 water intake structures and treatment plants.

To improve the current situation, the President's Decree **“On additional measures for development of drinking water supply and sanitation in the Republic of Uzbekistan”** (No. PP-4040 of 30.11.2018) was adopted. The Clean Drinking Water Fund at the Ministry of Finance was transformed into the **Water Supply and Sanitation Development Fund**. Now, the Fund has got additional tasks on financing of programs and projects for construction and reconstruction of sanitation objects. The document introduces a special charge for sanitation services, the size of which is to be approved by the Karakalpakstan Council of Ministers, provincial and Tashkent city authorities upon agreement with territorial financial bodies. The territorial branches of the “Engineering Company on construction of water supply and sanitation objects” are established in all regions of the country (except for Tashkent) on the base of four inter-regional branches. The purpose is to ensure coordination and implementation of targeted programs on construction and reconstruction of water supply and sanitation objects in 2019 and the next years at the expense of the above-mentioned Fund.

The President's Resolution **“On measures for improvement of drinking water supply to the population of Jizzak province”** (No. PP-3695 of 04.05.2018) approved “Improvement of drinking water supply in Jizzak province through water of the Zarafshan River” Project. The project provides for construction of water intake structure; water treatment station; “Jizzak” water distribution system; 16-kilometer conduit

from water intake to the water treatment station; 20-kilometer main conduit from water treatment plants; and 146-kilometer main and feeding conduits.

The “Improvement of drinking water supply in rural areas of Prearalie Project” financed by the New World Program (NWP) with the support of the Coca-Cola Fund (TCCF) and the Global Water Challenge (GWC) is ongoing. It is planned to buy and mount new water treatment equipment, repair water distribution station and mount water supply lines. More than 1,948 people will have the possibility to use clean artesian water for their needs. This will improve sanitation conditions of Takhtakupyr district in Karakalpakstan.

Agriculture

Agriculture is one of the key branches of the economy in Uzbekistan. The land used for agricultural production covers 45% of the country's territory. Together with water and forestry management, this branch gives jobs to 3.6 million.

Diversification of agriculture is the important stage of reforms. New reforms call for reducing dependency on cotton through increased export of apricots, cherry, tomatoes, herbs, peaches and persimmon. Also, new opportunities are open to plant potatoes and grapes; bee-keeping, poultry, fishery and other types of agrarian business. Farmers have started to grow saffron on 50 ha in 23 districts of the country. This would allow increasing export and developing pharmaceutical branch of the country. 45 horticultural clusters were established and represent the whole cycle of growing, processing and export of produced vegetables and fruits. In 2019, the number of clusters is planned to reach 100.

The volume of output of agricultural production increased 3 times and amounted to 24 million tonnes of horticultural crops, including 11.3 million tonnes of vegetables; 3.1 million tonnes of fruits; 1.7 million tonnes of grapes; and, 2.1 million tonnes of melons and gourds. There are more than 12 million of cattle, more than 20 million of small ruminants, and about 72 million of poultry in the country. More than 2.4 million tonnes of meat, over 10 million tonnes of milk, 37,000 tonnes of wool and more than 7 billion of eggs are produced.

Export was organized to 9 countries of the world, including Spain, Italy, Lebanon, Israel, Vietnam,

Czech Republic, Belgium, the Netherlands and Switzerland.

Cotton growing. In 2018, 6 trillion sum, the amount of guaranteed credit resources on goods, works, services and material and technical resources, were planned for purchasing of raw cotton by the state (approx. \$750 million) (No. PKM-149 of 28.02.2018). 13 projects on introduction of modern forms of cotton-textile production in 11 regions of the country were implemented (in line with No. PKM-53 of 25.01.2018). As an experiment, local textile enterprises were ordering and making advance payments for the raw cotton production directly from farms and other agricultural producers (No. UP-5285 of 14.12.2018). In 2018, first yield of cotton of sustainable development standard, based on BCI-principle (Better Cotton Initiative) was harvested.

Agricultural equipment. The President's Resolution “On additional measures for further improvement of technical conditions of agricultural equipment” (No. PP-3459 of 04.01.2018), which defines an urgent need for provision of modern agricultural equipment for spring agrotechnical work in 2018, was adopted. Particularly, it is expected that 5778 units of equipment, including 758 tillage tractors, 1500 cultivation tractors, 330 tractors for gardening works, 2790 units of farming attachments and towed vehicles, as well as 400 grain combiners will be supplied. The “Concept for further development of agricultural equipment branch of the Republic of Uzbekistan for the period of 2020-2024” was brought for public discussion.

Farmer Councils. The President's Resolution “On additional measures for improvement of the activity of individual and dehqan farms and the owners of households” was adopted (No. PP-3680 of 26.04.18). The document sets the conditions of membership in the Council of individual and dehqan farms that should undertake regular monitoring over targeted and efficient use of land plots. Limited liability companies *Tomorkahizmati* are established to assist farmers, as well as the Farm Support Fund at the above mentioned Council.

Development of horticulture and viticulture. The Resolution of the Cabinet of Ministers “On measures for improvement of land use efficiency in farms with the purpose of vegetable growing, horticulture and viticulture” (No. PKM-258 of 3.04.2018) was adopted. Recently, the area of gardens and vineyards has extended by 70,000 ha. More than 60 different varieties of apple, about 50 varieties of pear, 43 varieties of grape,

90 varieties of strawberry, 90 varieties of nuts have been bred. Dehkans, farmers and population grew on an area of 179,100 ha 24 varieties of fruit trees and grape bred by the scientists of Scientific-Production Center.

Two exhibitions were organized at the National Exhibition Complex **Uzexpocenter**: the XIII International Specialized Trade Fair of modern equipment and technologies for agro-industrial complex and the VII International Specialized Exhibition of agricultural equipment and machinery (May).

Foreign Investments and Grants

In 2018, the **agricultural sector received**: \$500 million from WB and \$198 million from ADB for development of horticulture; €150 million from Spain for joint projects in agriculture, industry and infrastructure; €15 million and €21.5 million from EU for development of livestock sector and horticulture, respectively.

Over 2019-2023 the "Indorama" Singapore Company will be investing \$340 million for the development of a cotton and textile cluster. Based on the Resolution of the Cabinet of Ministers "On measures aimed at creating modern cotton and textile production by the "Indorama" Company in the Republic of Uzbekistan" (No. 632 of 08.08.2018), it is planned to spend \$225 million for growing of raw cotton and crops in rotation and \$115 million for cotton processing and wool production.

In 2018, the following funds were allocated in the water sector: \$145 million by ADB for improvement of water supply; €30 million by EU for "Sustainable management of water resources in the Fergana Valley"; €400 million by EIB for water resources management; \$100,000 by Coca-Cola Fund for the project on improvement of water supply in Takhtakupyr district of the Republic of Karakalpakstan under the Joint UN Program on the Aral Sea.

The energy sector received in 2018: \$200 million by the WB for the improvement of energy efficiency; \$475 million by IDB for energy development; \$50 million by IBRD for energy efficiency; \$85.5 million by Turonbank for construction and modernization of HPPs, including construction of "HPP Kamolot" along the Chirchik-Bozsui tract, modernization of the Kadarya Cascade of HPPs (HPP-3) with the delivery of equipment from PRC and modernization of the Nizhne-Bozuysk Cascade of HPPs (HPP-14), Tashkent Cascade of HPPs (HPP-9), Shakhrikhan Cascade of HPPs (SFC-2) on ready-

to-operate basis; \$1.3 billion by the Canadian Company SKYPOWER GLOBAL and \$1.2 billion by the Headwall LLC American Company for construction of photoelectrical solar energy generation facilities.

Energy

Based on the results of 2018, generation of electrical energy in Uzbekistan amounted to 62.8 billion kWh, including 56.3 billion kWh (89.6% of total volume) by thermal stations and 6.5 billion kWh by hydropower plants. The customers received 50.7 billion kWh, including population – 13.3 billion kWh. Electrical power export was 2.6 billion kWh.

In 2018, the **JSC "UzbekEnergo"** implemented **six large investment projects on construction of new and modernization and reconstruction of existing energy stations** (in line with PP-3507 of 03.02.2018). Particularly, the following work was completed: construction of a new Turakurgan thermal power station in Namanagan provided with two steam and gas units (SGU), capacity of 450 MW, and SGU at Navoiy thermal power station, capacity of 450 MW (JICA, Fund for Reconstruction and Development of the Republic of Uzbekistan, and own funds of the JSC "UzbekEnergo"); installation of two SGUs at Takhiatash thermal power station, capacity of 230-280 MW; construction of transmission lines of 220 kV to the distance of 363.8 km (ADB); stage-by-stage modernization and reconstruction of 22 sub-stations (WB); stage-by-stage modernization of energy blocks at Syr Darya thermal power station (together with Russian company "Powerful machinery"); implementation of automated electrical power control and monitoring system (AEPCRS). Totally, the amount of 6,774.7 billion sum was spent on investment projects.

Additionally, JSC "UzbekHydroEnergo" completed the following in 2018:

Modernization of the Charvak HPP to ensure its reliable and efficient operation within the energy system. Thanks to replacement of obsolete and worn-out elements, the service period of the HPP's equipment was extended for another 40 years, and the capacity was increased by 45 MW (from 620.5 to 666 MW).

Development of feasibility study for the construction of the Pskem HPP on the Pskem river. New HPP with the capacity of 400 MW and the average annual generation of 900 million kWh would become the second in Uzbekistan after the Charvak HPP, and one of the largest in the region.

An agreement on mutually beneficial cooperation in the area of hydropower development in Uzbekistan was signed between the Russian Energy Holding "RusGidro" and the JSC "UzbekHydroEnergo". The main point of the Agreement is the establishment of a joint working group, which in the first quarter of 2019 would start its work on feasibility study on the projects of the Mullalak HPP of 240 MW and the Upper Pskem HPP of 200 MW on the Pskem river.

Loan Agreements between the Uzbek SCB Turonbank and the Export and Import Bank of China for the amount of \$85.8 million was signed. The funds will be used for financing of projects on construction and modernization of 4 HPPs in Tashkent and the Andizhan and Tashkent provinces to increase their capacity to 62.1 MW and average annual generation to 406.1 million kWh.

Hydropower development. In the energy system of Uzbekistan the ratio of generation between thermal power stations and hydropower plants was 87 and 13%, respectively (given the optimal proportion of 65 and 35% in 2017). The hydropower resources of Uzbekistan allow generating up to 27.4 billion kWh a year of electrical power, of which 6.5 billion kWh or 23.7% only was developed in 2018. Out of operating 37 HPPs over the years of independence seven new HPPs were constructed and others were built between 30-80 years ago. Equipment is worn-out and obsolete. Based on the long-term forecast approved by the JS "UzbekHydroEnergo" in 2018, it is expected to continue developing the sector and achieving 13.16 billion kWh of total generation by 2029. This will be 22% of actual generation by the energy system on the whole in Uzbekistan. By the beginning of 2022, JS "UzbekHydroEnergo" plans to put into operation two HPPs with the capacity of more than 30 MW, 12 new small plants and 10 new mini HPPs; modernize nine existing HPPs and start the construction of two big HPPs – Nizhnechatkal and Mullalak. This will allow increasing annual generation of electrical power by 1.6 billion kWh, given that in the structure of the JS "UzbekHydroEnergo" the total quantity of operating HPPs will be 61, with the total generation of 9.533 kWh.

A **decision on development of nuclear energy in Uzbekistan** was adopted (No. UP- 5484 of 19.07.2018). The Agency for nuclear development was established at the Cabinet of Ministers of the Republic of Uzbekistan (Uzatom) together with the Scientific-Technological and Expert Council under it. The Agreement between the Government of Uzbekistan and the Govern-

ment of Russia "On cooperation in the construction of nuclear electrical power station on the territory of the Republic of Uzbekistan" was signed (7 September 2018). The parties agreed to maintain cooperation in design and construction of nuclear power plant in the territory of Uzbekistan, consisting of two energy blocks on the base of water cooled energy reactor, with up to 1.2 GW of established capacity of each energy block.

A pilot project on the construction of photo-electrical stations with the capacity of 100 MW in Navoyi province is planned (Resolution of the Cabinet of Ministers "On measures for development of renewable sources and attraction of private investments for creation of photo-electrical stations" No. 633 of 08.08.2018).

Environment, Ecology and Climate Change

The issues of environmental security, efficient use of water and other natural resources are in the focus of the state.

During the Summit of the Heads of the IFAS Founder-State (24.09.2018, Turkmenbashi, Turkmenistan), the President of Uzbekistan Sh.M. Mirziyoev has voiced over **five initiatives**: to declare Prearalie (the Aral Sea coastal zone) an area of environmental innovations and technologies; to establish a Regional Center for growing seedlings of desert and fodder plants; to arrange in Prearalie the designated and protected natural zones of transboundary character; to enhance considerably the level of regional cooperation in water saving as well as management and rational use of transboundary water resources and adopt the Regional Program for rational use of water resources in CA; to organize implementation of joint interdisciplinary research, including on the base of the Scientific Information Center of the Interstate Commission for Water Coordination in Central Asia and the Scientific Information Center of the Interstate Commission on Sustainable Development (for more details see section "[XII Summit of the IFAS Heads of Founder-State](#)").

In order to ensure effective public administration in the sphere of ecology and environmental protection, the President's Resolution "**On additional measures for the improvement of public administration system in the sphere of ecology and environmental protection**" was adopted (No. PP-3956 of 03.10.2018). The Resolution approves the establishment of the **Inspection for control in the area of ecology and**

environmental protection at the Goscomecologiya; the Republican association of specialized sanitary purification enterprises; the Center for environmental information, introduction of information and communication technologies and multimedia, in the form of state unitary enterprise. The main tasks and areas of activity of the established organizations were defined.

In order to develop scientific and research basis for ecology and environmental protection, the Resolution of the Cabinet of Ministers **“On measures for further development of scientific and research basis for ecology and environmental protection”** (No. 958 of 26.11.2018) was adopted. The Resolution approves the establishment of a scientific cluster at the Cabinet of Ministers. The Research Institute of Ecology and Environmental Protection at the State Committee on Geology was transformed into the Research Institute of Environment and

Environmental Technologies at the State Committee on Ecology and Environmental Protection.

In 2018, the Multi-Partner Human Security Trust Fund for the Aral Sea Region under the UN umbrella was established. The Fund was established in an attempt to bring multiple risks that threaten vulnerable groups to the forefront and maintain the new dimension of the dialogue on a need to make comprehensive and human-oriented decisions based on the needs and abilities of people and consider the existing risks and threats. For more details see the box in section [“UNDP/Uzbekistan”](#).

The new environmental site of the Specialized Analytical Control Center (SACC) was opened on <https://www.csak.uz/en/>. The Center provides environmental control and is a branch of the State Committee on Geology.

The Information and Resource Center at the Tashkent provincial branch of the Ecological Movement was opened with the support of the OSCE Project Coordinator Office (17 July). The purpose of the Center is to enhance environmental culture and improve knowledge of population on environmental protection and health.

The renovated Environmental Museum was opened in Muinak (Prearalie). The exhibition reflects the culture of Karakalpakstan and the

features of Prearalie. The first floor shows flora, fauna, national clothes and popular craftwork items, the everyday objects, and even the examples of the production of fish canning plant, which was very famous in the Soviet Union. The second floor has an art gallery of famous artists who used to live near the Aral Sea and reflected the stages of its existence in their paintings.

The issues of environmental security, rational use of water and other natural resources are still

in the focus of the state in 2019. (Message of the President to Oliy Mazhlis, 28.12.2018). As it is known, the Aral Sea catastrophe has led to the Aralkum desert covering an area of more than 5.5 million ha. Every year, 100 million tonnes of sand and salt raise in the air from the dried bed of the sea. This fact once more proves the global character of the Aral Sea problem. Establishment of the Multi-Partner Human Security Trust Fund for the Aral Sea Region under the UN has become a big achievement of Uzbek diplomacy. Particular attention is paid to afforestation of the dried bed of the Sea. Since independence, afforestation has covered almost 1,220,000 ha, of which more than 400,000 ha are in Prearalie. In line with a Special Program, it is to afforest additionally 500,000 ha in 2019 in this region (see more details in section "[Afforestation on the former bed of the Aral Sea in Uzbekistan](#)").

During 2018 the following projects were ongoing:

“Reducing pressures on natural resources from competing land use in non-irrigated arid mountain, semi-desert and desert landscapes of Uzbekistan” (GEF, UNDP) aimed at reducing the intensity of use of natural resources through adoption of integrated approaches to management of pasture and forest management.

“Developing climate resilience of farming communities in the drought prone parts of Uzbekistan” (Adaptation Fund of the UN Framework Convention on Climate Change, UNDP) aimed at providing support to central, regional and local administration bodies and vulnerable communities to increase their resilience to climate change.

“Sustainable natural resource use of and forest management in key mountainous areas important for globally significant biodiversity” (GEF, UNDP) aimed at enhancing preservation and sustainable use of natural resources and biodiversity in highland ecosystems of Uzbekistan.

“Integrated natural resource management in drought-prone and salt-affected agricultural production landscapes in Central Asia and Turkey” (FAO and GEF) aimed at reducing the risks and vulnerability and simultaneously improving capacities of rural communities to manage droughts and salinization and adapt to them.

“Ecosystem-based land use and conservation of ecosystems at lower reaches of Amu

Darya” (GIZ). The project provides for the improvement of productivity of degraded land used in irrigated agriculture and conservation of biodiversity through protection of forests and afforestation in the lower reaches of Amu Darya.

During 2018 the following events were held:

Applied science workshop “Protection and rational use of land resources in the context of environmental change” (23 April, Tashkent) organized by the deputy group of the Ecological Movement, the Committee of the Legislative House of Oliy Mazhlis on ecology and environmental protection, the Agricultural and Water Committee together with the State Committee for land resources, geodesy, cartography and national cadastre.

Roundtable “Studying the status of ratification by Uzbekistan of the international agreement of the 21st Paris Conference of the UN Framework Convention on Climate Change” organized together with the Environmental Movement of Uzbekistan and the Committee for International Affairs and Inter-parliamentary Relations of the Legislative House of Oliy Mazhlis (27 June, Tashkent).

International Roundtable dedicated to adoption of the UN GA Resolution “Strengthening of regional and international cooperation to ensure peace, stability and sustainable development in the Central Asia region” (12 July, Tashkent).

Conference on the environmental problems in the Aral Sea region (15 August, Tashkent).

Training workshop “Sustainable water management in rural area” organized by the Kashkadarya branch of the Ecological Movement together with IWMI (10 September, Kashkadarya province).

Workshop dedicated to the Intergovernmental science and political platform on biodiversity and ecosystem services (18 September, Tashkent).

International roundtable “Environmental challenges in the Central Asia at the present time and in the long-term: search for joint solutions”, a joint initiative of the Research Initiatives Center “Ma’no” and the Ebert Fund representative office in Central Asia (21 November, Tashkent).

Foreign Policy and International Cooperation

In 2018, 18 interstate visits were made and agreements were reached on 1080 projects for a total amount of \$52 billion.

The President Shavkat Mirziyoyev made official and working visits to Tajikistan (09-10 March), USA (15-17 May), India (30 September-1 October), and France (08-09 October)

With the aim of participating in multilateral events the President of Uzbekistan visited: Kazakhstan (15 March) for the First consulting meeting of the Central Asian Heads of State; PRC (09-10 June) for the Meeting of the Council of Heads of State within the Shanghai Cooperation Organization; Turkmenistan (24 August) for the Summit of the Heads of the IFAS Founder-States; Kyrgyzstan (03 September) for the Summit of the Cooperation Council of Turkic Speaking States; Tajikistan (27-28 September) for the Meeting of the Council of CIS Heads of State.

The President of the Islamic Republic of Afghanistan Mohammad Ashraf Ghani (26 March); the President of Turkmenistan G. Berdimuhamedov (23-24 April); the President of Turkey R. Erdogan (29 April-1 May), the President of Tajikistan E. Rakhmon (17-18 August), the President of the Arab Republic Egypt Abdel-Fattakh el-Sisi (4 September), the President of Belarus A. Lukashenko (12-14 September), and the President of Russia Vladimir Putin (19-20 October) made official and working visits to Uzbekistan in 2018.

In 2018, the President of Uzbekistan received: WB Delegation (18 January); Deputy Prime-Minister, Minister of Strategy and Finance of the Korean Republic (13 February); Deputy Chairman of the Cabinet of Ministers of Turkmenistan (01 March); Minister of Finance of Russia (06 March), Deputy of the U.S. State Secretary (26 March), Minister of Foreign Affairs of the Korean Republic (18 April), First Deputy Prime-Minister of the RK (04 May), the President of EBRD (01 August) and the President of IDB (20 September).

In 2018, the following international conferences were held in Uzbekistan:

International High-level Conference on Afghanistan "Peace process, security cooperation and regional connectivity" (26-27 March, Tashkent);

International Conference "Uzbekistan and China: prospects for joint implementation of the One Belt, One Road Initiative" (14 May, Tashkent);

Central Asian International Environmental Forum "Strengthening cooperation on environment and sustainable development in Central Asia" (5-8 June, Tashkent);

International Conference on the environmental problems of the Aral Sea "Joint actions to mitigate the consequences of the Aral Sea catastrophe: new approaches, innovative solutions and investments" (7-8 June, Tashkent);

International Forum "Innovative approaches to promoting sustainable governance and social stability in the Aral Sea Basin" (16-18 October, Samarkand);

First meeting of the Central Asian Expert Forum (29 October, Tashkent)

International Research to Practice Conference "Increasing efficiency, reliability and safety of hydraulic structures" (22-23 May, Tashkent).

Sources:

Official sites:

The President of Uzbekistan (<https://president.uz/>);
The Government of Uzbekistan portal (www.gov.uz);
The Ministry for Investments and Foreign Trade (www.mift.uz);
The Ministry for Foreign Affairs (www.mfa.uz);
The Ministry of Finance (www.mf.uz);
The Ministry of Economy and Industry (www.mineconomy.uz);
The Ministry of Justice (www.minjust.uz);
The Ministry of Innovation Development (www.mininnovation.uz);
The Ministry of Agriculture (www.agro.uz);
The Ministry of Water Management (www.water.gov.uz/ru);
The Ministry of Energy (www.minenergy.uz);
The State Committee for Geology and Mineral Resources (www.uzgeolcom.uz);
The State Committee for Land Resources, Geodesy, Cartography and State Cadastre (www.ygk.uz);
The State Committee for Ecology and Environmental Protection (www.uznature.uz);
The State Committee for Forestry (www.urmon.uz)

Information agencies and sites:

<https://www.uzdaily.uz/>;
<http://ca-news.org/>;
<http://ru.sputniknews-uz.com/>;
<https://vesti.uz/>;
<http://podrobno.uz/>;
<https://www.gazeta.uz>;
The Ecological Movement of Uzbekistan – <http://eco.uz>;
National information agencies of Uzbekistan (UZA) – <http://www.uza.uz/>

