

COUNTRY PROFILE



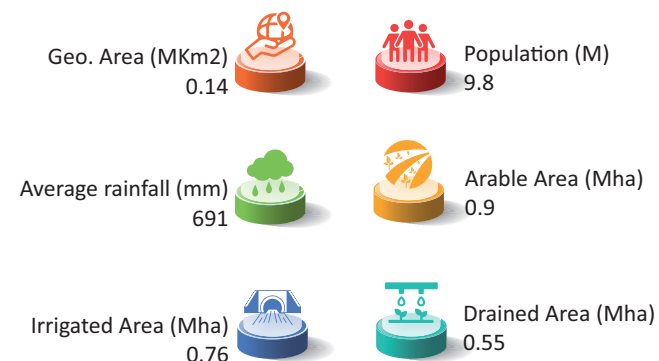
TAJIKISTAN

Geography

Tajikistan is a landlocked country in the heart of Central Asia, surrounded by Afghanistan to the south, China to the east, Uzbekistan and Kyrgyzstan to the north, and Uzbekistan to the west, covering a total area of 143,100 sq. km. Its geographic coordinates are 36°40' - 41°05' north latitude and 67°31' - 75°14' east longitude. Tajikistan is the smallest country in Central Asia. Mountainous terrain makes up about 93% of its territory. There are three regions in Tajikistan: Gorno-Badakhshan Autonomous Region, Khatlon and Sughd regions, as well as districts of republican subordination. Absolute altitude marks range from 300 to 7495 meters above sea level. The lowlands of the country lie in the north in the Ferghana Valley in the basin of the Syrdarya River (300 m), and the highest peak of Tajikistan (7495 m - Ismoili Somoni Peak) is located in Pamir.

Climate and rainfall

The climate of Tajikistan is sharply continental, which is due to its geographical position within the Eurasian continent on the verge of subtropical and temperate zones. Wide valleys and plateaus with heights up to 1000 m are distinguished by long hot summers with an average July temperature of about



30°C with an absolute maximum of up to 43° - 48°C. The frost-free period lasts 210 - 250 days. Summer drought is common. In July, August, September, there is almost no precipitation. Winter is short and mild.

The average January temperature is from -2.5° to 2° C. But sometimes the invasion of the Arctic air brings a significant cooling. There are sharp fluctuations in the average annual precipitation - from a minimum level of less than 100 mm in the south of the country, to a maximum value of 2400 mm in the high mountains of the Pamir. Evapotranspiration varies from 300 mm/year to 1200 mm/year for stony soils and can be as high as 1500 mm/yr.





Water resources

The river runoff formation zone is 90% of the territory of Tajikistan. The basis of the water resources of the Republic of Tajikistan are glaciers, rivers, lakes, reservoirs and groundwater. There are 947 large and small rivers in the country with a length of more than 10 kilometers, exceeds 28,500 kilometers. The rivers are mainly fed by snow and glaciers. In general, the average long-term runoff of rivers formed in Tajikistan is 64 km³/year, including 62.9 km³/year in the Amudarya river basin and 1.1 km³/year in the Syrdarya basin. The rivers of Tajikistan form 55.4% of the average annual surface runoff of the Aral Sea basin.

For the proper management of water resources at the basin level, Tajikistan has adopted the Water Sector Reform Program for the period 2016-2025. The Water Code of the Republic of Tajikistan, which was adopted in 2020, is the main regulatory legal act for regulating water relations at the national and international levels.

Impact of climate change on water resources

Tajikistan is the most vulnerable to climate change. Glaciers are the main source of water resources formation in the country. The glaciation area of the mountains of the Central Asian Republics is about 17 thousand km², of which more than 60% is located in Tajikistan. The number of glaciers in the republic is 14509 with a total glaciation area of 11146 km², which is about 8% of the entire territory of the country. Due to the impact of global climate change,

more than 1,000 glaciers have melted in the country to date. The melting of the largest Fedchenko glacier in Tajikistan is observed, the length of which is more than 75 kilometers. Studies show that in the last 70-80 years alone, the Fedchenko glacier has shrunk by more than a kilometer, and its area has decreased to 44 square kilometers.

Also, under the influence of climate change, natural disasters associated with mudflows and floods, which destroy settlements, infrastructure and agricultural land, have become more frequent.

Population and land use

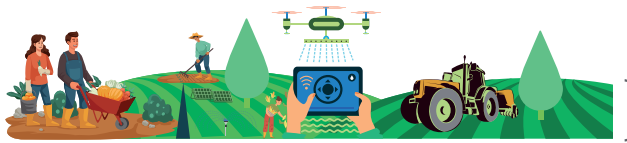
According to the Population Reference Bureau, at the beginning of 2022, the population of Tajikistan was 9.8 million people. The population density is 69.8 people per sq. km. On average, population growth is 2.2% per year. According to the State Committee for Land Management and Geodesy of the Republic of Tajikistan for 2021, 6,953,866 hectares are in use by agricultural enterprises and organizations, of which 762,691 hectares are irrigated lands, or 5.3% of the total area of the country. The irrigated area per capita is 0.077 ha.

Agriculture and food

After gaining independence, the Republic of Tajikistan pays special attention to the development of agriculture. The ongoing reform in agriculture contributed to the development of new lands, employment in agriculture and the contribution of

agriculture to the formation of the country's GDP. Thus, at the moment, the share of agriculture in the country's GDP is more than 20%. During the period of independence, the development of new lands amounted to more than 100 thousand hectares. Cotton and wheat are the two main cash crops in Tajikistan, with nearly 70% of the cultivated area (30% cotton, 36% wheat and 9% other grains). Wheat and barley are cultivated in rain-fed areas, mainly on the southern plains. Rice is grown in the river valley by the flood.





Irrigation and drainage

The total area of land potentially suitable for irrigation in the country is estimated at 1570 thousand hectares, of which 762.6 thousand hectares have been developed by 2021, wherefrom 289.1 thousand hectares are irrigated with the help of 390 units pumping stations with 1500 aggregates, incl. 213.2 thousand hectares are irrigated with the help of 228 cascade pumping stations with 922 aggregates.

The irrigation and drainage network is mainly located in the basins of the Syrdarya, Zarafshan, Kafernigan, Vakhsh and Pyanj rivers. In general, 26.7 thousand kilometers of irrigation networks, main canals and 11.4 thousand kilometers of collector-drainage networks, 7099 hydraulic structures, 505 vertical wells, 169 siphons, 110 aqueducts, 5455 water distribution points, 3858 gauging posts functioning to serve irrigated lands in the country.

They are divided into four categories: (1) modern irrigation systems, (2) irrigation systems with main canals without impervious cover and no hydraulic structures, (3) irrigation systems with rehabilitated networks and large main canals, (4) irrigation systems that not properly equipped.

International cooperation in the field of water relations

The Republic of Tajikistan proceeds in its foreign policy in the field of water relations from the need to ensure sustainable development of the national economy, efficient, rational use and protection of

water resources on the basis of compliance with the principles of international water law, expanded mutually beneficial and friendly cooperation with foreign states, ensuring universal environmental security, development international cooperation in the field of water relations.

Tajikistan is the initiator of several global water initiatives:



International Year of Fresh Water, 2003 Resolution of the UN General Assembly of December 20, 2000, 55/196, 55th session



International Decade for Action "Water for Life", 2005-2015 Resolution of the UN General Assembly of December 23, 2003, 58/217, 58th session



International Year of Water Cooperation, 2013 Resolution of the UN General Assembly of December 20, 2010, 65/154, 65th session



International Decade for Action "Water for Sustainable Development", 2018-2028 Resolution of the UN General Assembly of December 21, 2016, A/RES/71/222, 71st session

Water Sharing Agreements

During the Soviet period, water resources were distributed among the five republics of Central Asia on the basis of master plans for the development of water resources in the Amudarya and Syrdarya river basins. After gaining independence in 1992, an Agreement was signed between the Republic of Kazakhstan, the Republic of Kyrgyzstan, the Republic of Uzbekistan, the Republic of Tajikistan and Turkmenistan on cooperation in the field of joint management of the use and protection of water resources of interstate sources. This agreement

created the Interstate Coordinating Water Commission of the countries of Central Asia. On the basis of this agreement, the parties continue to comply with the previously established volumes of water withdrawal from the Amudarya and Syrdarya river basins.



ICID and National Committee

The Republic of Tajikistan renewed its membership in the ICID in 2014. Later, by Decree of the Government of the Republic of Tajikistan dated October 29, 2015, No. 620, the National Commission for Irrigation and Drainage in the Republic of Tajikistan (TajNCID) was established. Since then, TajNCID has been actively organizing ICID meetings in Tajikistan, participating in ICID events, and strengthening cooperation with other NCIDs at the international level.

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