

SECTOR ASSESSMENT (SUMMARY): WATER AND OTHER URBAN INFRASTRUCTURE AND SERVICES

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. **National economic context.** Uzbekistan has one of the fastest growing economies in Central Asia,¹ having achieved a growth rate of 8% or above from 2005 to 2014. The growth rate in 2016 was 7.8%, with forecasts of 7.0% for 2017 and 7.3% for 2018. Since independence in 1991, Uzbekistan's growth has been attained through a gradual transition to a market-based economy, with initial emphasis on welfare and social stability. Economic growth is predominantly driven by the manufacturing and natural resources sectors,² supplemented by increased construction activities, a dynamic services sector, and an expanding small and medium-sized enterprise base. Continued growth is envisioned through further industrialization and economic diversification, together with careful balancing of urban and rural development. Strategic investments in infrastructure, including water supply and sanitation (WSS), are considered essential to support economic progress and achieve the nation's development objectives.

2. **Water supply.** Uzbekistan's water supply systems primarily originate from the Soviet era. Since independence in 1991, the government's main priorities have been to increase water supply access, ensure service continuity, improve efficiency, and promote water conservation. This has included the construction and reconstruction of urban and rural water intakes, treatment plants, mains and distribution pipelines, pumping stations, and distribution systems in urban and rural areas.³ Despite a strong sustainability focus and a relatively high overall network coverage, however, water supply indicators show mixed sector performance.⁴ Water supply disruptions are common, with many urban and most rural consumers suffering supply limitations. Much of the water supply infrastructure has deteriorated, resulting in unreliable services, high leakage losses, and elevated water supply pollution risks. Rural area consumers, especially in remote areas, are often forced to source water from expensive tanker deliveries or to obtain untreated water from private wells or irrigation canals. Pump inefficiencies and power outages exacerbate water supply delivery problems.

3. In the Republic of Karakalpakstan (RK), an autonomous republic in Uzbekistan, only 36.6% of the population is connected to centralized water supply systems and connectivity ranges from 65.2% in urban centers to as low as 12.9% in rural areas. Recent surveys indicate that severe water supply disruptions pervade in the RK's districts, with over 40% of households receiving water for less than 6 hours per week, often with low water pressure. Water quality is also a concern, with over 75% of households enduring excessive water salinity and hardness, over half experiencing muddy water, and about 30% reporting the presence of algae. Consumers also recognize a direct correlation between poor water quality and waterborne disease incidence.

¹ Asian Development Bank (ADB). 2016. *Uzbekistan: Economy*. <http://www.adb.org/countries/uzbekistan/economy>.

² Led by the automobile, chemical, and machinery subsectors.

³ During 1991–2012, more than 54,000 kilometers (km) of trunk mains and pipelines were reportedly constructed, including over 48,000 km in rural areas to provide clean water to about 3,300 rural settlements. During the latter part of this period, an additional 4,505 km of rural water pipes were rehabilitated, 3,214 km of water supply systems were constructed, 3,080 pumps and 130 transformers were installed, and 410 wells and other facilities were constructed.

⁴ During 2005–2010, utility water coverage increased from 69% to 73% and nonrevenue water decreased from 37% to 36% (International Benchmarking Network for Water and Sanitation Utilities. <https://database.ib-net.org>).

4. **Sanitation.** It is estimated that less than 20% of Uzbekistan's population is connected to centralized sewerage systems. In 2013, such systems were available in only 69 cities, where sewerage services were provided to only about half of households. Most wastewater systems were constructed during Soviet times, and have or are rapidly reaching the end of their economic life.⁵ System components are worn out, automation systems are outdated, networks are dilapidated, and pumps are old and inefficient. Consequences include excessive operational costs, frequent breakdowns, and high repair costs.

5. **Institutions.** Key WSS stakeholders include (i) the Cabinet of Ministers, which sets sector policy and endorses major investment decisions; (ii) the Ministry of Housing and Communal Services (MHCS), which oversees the WSS sector; (iii) the Communal Services Agency *Kommunhizmat* (CSA), which acts as a focal point in the development and management of international financial institution funded projects; (iv) the State Inspectorate for the Control of the Use of Drinking Water under the Cabinet of Ministers, which was established to strengthen sector governance and discipline; and (v) the Ministry of Finance, which traditionally plays a strong role in financing decisions and in strengthening the financial sustainability of the sector. Provincial WSS *suvokovas* (state unitary enterprises) are responsible for WSS delivery in their provinces, and have branch offices in each administrative district and major town.

6. Other involved agencies include (i) the State Committee on Assistance to Privatized Enterprises and Development of Competition, which polices natural monopolies; (ii) the State Committee on Architecture and Construction, mandated with safeguarding construction norms and standards in investment projects; (iii) the Republican Center for State Sanitary and Epidemiology Oversight under the Ministry of Health, which runs sanitary testing laboratories monitoring water, soil, and effluents; (iv) the State Committee on Ecology and Environmental Protection, mandated with enforcement of environment protection rules; (v) the State Committee on Geology and Mineral Resources, which is responsible for aquifers; and (vi) the Ministry of Agriculture and Water Resources, responsible for surface water resources and irrigation.

7. **Problems and challenges.** Uzbekistan's WSS infrastructure has aged and fallen behind demand arising from changes in demographics, urbanization, and industrial development. It needs urgent expansion, capacity enhancement, and modernization. Protracted periods of financial crisis and institutional disarray following the collapse of the Soviet Union contributed to severe WSS institutional and operational deficiencies, causing the accelerated dilapidation of assets, untenable financial performance, inexperienced management systems, and deep-rooted constraints in human resource potential. Consequently, most WSS utilities became virtually bankrupt, with obsolete and decrepit asset bases, unsustainable modes of operation, and limited capacity to attract financing to fund investment needs.

8. These constraints prevented WSS utilities from rendering WSS services in line with applicable regulations and public expectations. The poor-quality services undermined customers' willingness to pay, and regulators' willingness to approve tariff increases, leading to depressed financial performance. Poor financial performance resulted in a lack of funds for asset base and operating system improvements, leading to further deterioration. As a result, WSS utilities became locked in a vicious cycle, requiring urgent external intervention for the modernization and expansion of the asset base, coupled with fundamental institutional overhauls.

⁵ Although sewerage systems are generally designed with mechanical structures (sand traps and septic tanks), biological treatment (aeration), effluent disinfection (chlorination), and partial sludge treatment (aerobic stabilization, drying of sludge on sites), reports indicate that many may not meet prescribed treatment standards.

9. WSS utility operations are characterized by systemic institutional weaknesses caused by lack of (i) formally designated service zones for utility network branches; (ii) comprehensive and reliable production and consumer metering; (iii) effective network zoning; (iv) geographic information systems for networks and facilities; (v) hydraulic models of operations; (vi) supervisory control and data acquisition (SCADA) systems; (vii) effective performance management using key performance indicators; (viii) modern and effective management information systems, especially for billing and financial management; (ix) robust grievance redress mechanisms; (x) effective human resource management systems, especially in terms of remuneration, motivation, and productivity; (xi) sound public accountability systems; (xii) orderly operation and maintenance systems; (xiii) active leakage control systems; and (xiv) other critical operational capabilities.

2. Government's Sector Strategy

10. The government began a phased reform program in 2015 to break the WSS utility vicious cycle. The first phase, initiated through the Decree of the Cabinet of Ministers No. 306,⁶ has consolidated more than 150 WSS utilities into 18 WSS *suvokovas*, and about 40 time-bound corporate governance improvements are being implemented to strengthen utility capacity. These widespread sector reforms are currently in progress.

11. The second phase, initiated in 2017, is overhauling the wider WSS institutional framework, guided by several recently adopted government decrees.⁷ The MHCS was also created during this phase, with responsibility for sector policy, coordination, and implementation nationwide. In addition, CSA, which is responsible for Asian Development Bank (ADB)-financed project implementation, has been transitioned into the MHCS⁸ and a State Inspectorate has been convened.⁹ A third reform phase is planned to create an enabling environment for public-private partnership arrangements in the sector.¹⁰ These ongoing reforms demonstrate the government's commitment to achieve sustainable improvements in the WSS sector, to break the vicious cycle, improve sector performance, and intensify initiatives to attract WSS financing.

3. ADB Sector Experience and Assistance Program

12. ADB intervention in rural and urban WSS has increased progressively since Uzbekistan became a member in 1995, and ADB is now one of the country's primary development partners in WSS. During 2000–2013, ADB provided financial assistance to the government for nine projects totaling more than \$500 million, equivalent to about 10% of ADB's total lending and grants to the country. This assistance has yielded significant improvements in urban infrastructure and services, particularly in WSS, where more than 5 million residents have benefitted from safer and

⁶ Decree of the Cabinet of Ministers of the Republic of Uzbekistan No. 306 dated 30 October 2015.

⁷ Including the (i) Decree of the President of the Republic of Uzbekistan No. UP-5017 dated 18 April 2018 "On Measures for Further Improvements in Management of Housing and Communal Services;" (ii) Decree No. PP-2900 dated 18 April 2017 "On Organization of the Ministry of Housing and Communal Services;" (iii) Decree No. UP-5018 dated 18 April 2017 "On Creating the State Inspection for the Control of the Use of Drinking Water under the Cabinet of Ministers of the Republic of Uzbekistan;" (iv) Decree No. PP-2899 dated 18 April 2017 "On Organization of Work of the State Inspection for the Control of the Use of Drinking Water under the Cabinet of Ministers of the Republic of Uzbekistan;" and (v) Decree No. PP-2910 "On the Program of Comprehensive Development and Modernization of the Drinking Water Supply and Sewages for 2017–2021."

⁸ CSA is the government entity responsible for the development of investment projects in the WSS and other communal service sectors, including projects funded by international finance institutions.

⁹ The State Inspectorate will monitor (i) WSS legislation and regulatory compliance; (ii) WSS infrastructure status; and (iii) the status of wellfields, irrespective of their ownership.

¹⁰ The Ministry of Justice published a draft public-private partnership law for public discussion on 6 June 2017.

more reliable WSS services. ADB has also supported policy reforms in WSS through grant assistance.¹¹

13. In 2009, ADB approved a multitranche financing facility, the Water Supply and Sanitation Services Investment Program, to improve WSS services in provincial cities and secondary towns across eight provinces.¹² In addition to physical investments to rehabilitate and expand WSS systems, nonphysical investments include four key components: (i) strengthening financial management systems, (ii) improving financial sustainability, (iii) introducing performance-based contracts, and (iv) pilot testing private sector participation through a lease agreement mechanism. These components aim to rationalize and improve institutional efficiency and complement other development partner sector initiatives.¹³

14. The latest review of the government's sector reforms shows that significant improvements have been achieved, particularly regarding measures taken to strengthen the institutional, operational, and financial performance of WSS utilities. ADB continues to support the reform activities, and is assisting the government to establish full-scale, unified consumer billing systems for project utilities. These systems are anticipated to be fully operational within 2018. ADB and the government recognize that much remains to be done in implementing water balance assessments, asset management, personnel capacity improvements, public service contracts, benchmarking, application of corporate governance procedures, increased private sector engagement, and legal framework improvements.

15. The World Bank and the Swiss Agency for Development and Cooperation are assisting the Syrdarya, Samarkand, and Bukhara provincial WSS utilities to improve their water supply systems. The Swiss Agency for Development and Cooperation, through its institutional component in the World Bank-financed Syrdarya Water Supply Project, aims to (i) improve the managerial capacities of the Bukhara, Samarkand, and Syrdarya water utilities; (ii) introduce performance-based public service contracts between water utilities and local authorities; and (iii) assist in water sector regulatory framework reforms regarding national tariff setting and sector financing, transparency and accountability, and private sector participation.¹⁴ A dialogue mechanism has been established between development partners to facilitate discussion, address sector issues, and coordinate initiatives to support the government in implementing the ongoing sector reform agenda.

¹¹ ADB. 2008. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Uzbekistan for the Surkhandarya Water Supply and Sanitation Project*. Manila. Attached to this loan is a grant from the Multi-Donor Trust Fund of the Water Financing Partnership Facility (MDTF-WFPF) for \$1.5 million.

¹² ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Republic of Uzbekistan for the Water Supply and Sanitation Services Investment Program*. Manila.

¹³ Including initiatives implemented by the World Bank.

¹⁴ World Bank. 2011. *Project Appraisal Document on Syrdarya Water Supply Project*. Washington, DC.

Problem Tree for Water and Other Municipal Infrastructure and Services

