

## SECTOR ASSESSMENT (SUMMARY): WATER SUPPLY AND OTHER MUNICIPAL INFRASTRUCTURE AND SERVICES<sup>1</sup>

### Sector Road Map

#### 1. Sector Performance, Problems, and Opportunities

1. **Water Supply and Sanitation.** Most water supply and sanitation (WSS) infrastructure in the Kyrgyz Republic was built 40 to 50 years ago. Understanding the issues facing today's WSS sector requires an understanding of the system before the country became independent of the former Soviet Union. WSS services, like the rest of the Soviet Union's planned economy, were driven by quotas set in five-year economic plans. The systems provided 24-hour water supply and adequate sewerage, but efficiency, sustainability, and cost recovery were neither required nor considered relevant by the system of the time. Tariffs were minimal. As the Soviet Union's economy stagnated in 1970s, these WSS systems went into a decline.

2. This deterioration accelerated after the Kyrgyz Republic gained independence in 1991. In urban areas, operating costs increased but tariffs stagnated and operating models did not change. Rural areas suffered more. WSS systems formerly operated by state and collective farms were transferred to local governments, which had neither the funds nor the expertise to operate them. Most of these systems broke down or were abandoned. A rural typhoid epidemic in the early 2000s is thought to have been one result. Today, the sector is in a spiral of decline, and many of the 1,074 WSS systems still in operation are failing.

3. **Service delivery and key performance indicators.** WSS services in urban areas are provided by urban water utilities, called vodokanals, which essentially operate as they did under the former Soviet Union. In rural areas, WSS systems covered by the Taza Suu Program, a rural WSS program, proposed by the Government and jointly financed by the Asian Development Bank (ADB) and the World Bank, are operated by community drinking water users unions (CDWUUs) created in beneficiary villages.<sup>2</sup> Rural WSS systems outside the Taza Suu Program are operated directly by local governments. Both rural and urban WSS service levels are low. Indicators are only estimates because the urban water utilities, CDWUUs, and local governments do not collect reliable data. The key issues are

- (i) low water supply coverage of 60%–90% in cities and 50%–60% in rural areas;
- (ii) non-potable water, with 2% of chemical and 10% of microbiological tests failing;
- (iii) reduced hours of supply, with many cities providing water only 4–20 hours a day;
- (iv) high water losses estimated to be at least 45% of supply; and
- (v) low sewerage coverage of less than 50% in cities, and less than 25% in rural areas.

4. WSS services are poorly delivered due to (i) a financing gap, (ii) asset deterioration, (iii) ineffective organization of service provision, and (iv) weak sector governance.

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<sup>1</sup> This information and summary is based on ADB. 2009. *Project Preparatory Technical Assistance for Issyk-Kul Sustainable Development Project*. Manila; UNDP. 2011. *Communal Services in Kyrgyzstan, Poverty and Social Impact Assessment*. Bratislava; UNDP. 2010. *The Second Progress Report on the Millennium Development Goals*. Bishkek, Kyrgyz Republic; OECD. 2009. *National Policy Dialogue on Water and Sanitation for the Kyrgyz Republic: Annotated Outline Sector Policy Paper*. Paris.

<sup>2</sup> The Taza Suu Program is a \$101 million rural water supply and sanitation program, started in 2002, comprising the World Bank's Rural Water Supply and Sanitation Project and ADB's Community-Based Infrastructure Services Sector Project (Grant 0122-KGZ). Taza Suu means clean water in Kyrgyz.

5. **Financing gap.** Revenue collections are low. Willingness-to-pay studies indicate that 22% of customers do not pay for services and 60%–70% are reluctant to pay more, even for improved services. This would seem to be at odds with the high affordability of services, with average expenditures only 0.3%–0.4% of household income, even for poor households. However, many customers believe that water should be provided free, as it was under the former Soviet Union. In addition, people are now asked to pay for WSS services that are of lower quality than the services they once received at no cost. The service providers, face higher operating costs to inefficiency and deterioration of the WSS systems. The financing gap created by these low revenues and high expenditures is now estimated at \$20 million per year.
6. **Asset deterioration.** Most of the old WSS systems have deteriorated due to insufficient spending on maintenance. Many new and rehabilitated WSS systems, particularly in rural areas, are already deteriorating due to poor construction and lack of maintenance.
7. **Ineffective organization of service provision.** Urban water utilities still operate on the service principles of the former Soviet Union. Rural WSS systems suffer from a lack of skilled personnel. All systems rely on outdated and inefficient construction standards. Utility practices such as metering, leak detection, and computerized billing are beyond the capacity of the utilities.
8. **Weak governance.** No strategies, policies, or investment plans have been established for the sector. Because of this regulation, sector coordination, information gathering, knowledge sharing, and capacity building are virtually nonexistent the WSS sector. Sector institutions are weak. The institutional design of the urban and rural utilities provides no incentives for making operations sustainable. Reform in the sector has been limited and included the transfer of utilities to local government control and tariff increases. While tariffs increased by an average of 87% during 2007–2010, they still do not cover operating costs. Overall, weak governance is a root cause of problems in the sector.
9. **Link to poverty and inclusive growth.** The poor quality of WSS is an aspect of non-income poverty in the Kyrgyz Republic. Service quality also differs between urban and rural areas. In urban areas, 93% of the non-poor and 70% of the poor have either household or yard water connections. In rural areas, 46% of the non-poor and only 30% of the poor have equivalent access. Poor access to WSS limits income growth among poor households, particularly in rural areas, because collecting water constitutes a significant time burden. Poor WSS services also have an impact on school attendance and the quality of health services.
10. **Consultation and women's participation.** Women particularly benefit from improved WSS services since they are more likely than men to be fetching water and dealing with health impacts of substandard services on family members. Because they are the main users of water, their concerns about WSS delivery should be addressed and their views on operations noted. WSS consumer groups should be established, with women as participants. ADB's Issyk-Kul Sustainable Development Project (ISDP) is rehabilitating sanitation in schools; poor sanitation can be a major disincentive for school attendance by girls. Planned ADB projects will cover WSS at health centers and hospitals, especially maternity hospitals.
11. **Summary.** The fundamental challenge will be to completely reform governance of the WSS sector to enable it to deal with its technical, financial, and organizational problems. The estimate of the investment needed over 20 years to achieve and maintain the Millennium Development Goals related to WSS is \$700 million. The main strength in the sector is the legacy of engineering methods left over from the pre-independence period, including disaster management standards that are still applicable. This is a better starting point than has been

available to many other developing countries, but these methods require modernization. Easy, economical opportunities exist to improve services from current low levels. The main risk is that customers and politicians will not support financial reforms.

12. **Urban development.** The collapse of the Soviet Union drastically changed the urban landscape in the Kyrgyz Republic. Many smaller towns deteriorated as industries that had supported them failed, leading to a decrease in the country's urban population. Migration from rural areas and smaller towns to larger cities has been significant since 1991, and these cities now contain many illegal settlements. According to the 2009 census of housing and population, around 40% of the population lives in urban areas.

13. **Municipal services.** Municipal services have deteriorated due to lack of investment and the setting of user charges below cost recovery. Coverage for solid waste collection ranges from 60%–97% in large cities to as little as 25%–50% in small towns. Waste is disposed of in open dumps. The urban transport sector has stabilized after a rapid decline. Urban roads are adequately maintained in larger cities. Public transport is dominated by minivans. Municipal governments lack the financial resources to maintain municipal services and facilities. Available data indicate that the cities depend on central government transfers for 18%–51% of operating income. Local governments are unable to borrow.

## 2. Government's Sector Strategy

15. Under the National Sustainable Development Strategy for 2013–2017, the government plans to promote regional development, including development of secondary cities beyond the established and wealthier regions (Bishkek, Chui and Issyk-Kul provinces). The strategy cites the need to improve WSS and to develop sector policy but includes no specific investment plans.

16. **Sector structure and policy.** The sector structure is set by a law on local government and local self-administration and by a law on drinking water. Local governments are responsible for urban and rural WSS. They are supposed to approve tariffs and supervise service standards but do neither effectively. They appoint the management of utilities and provide subsidies.

17. The Department of Drinking Water Supply and Sewerage Development is officially responsible for development of the WSS sector but has little authority and low capacity, having been created only in 2012 after the new government took charge. Previous departments with similar responsibilities were moved frequently between ministries and agencies, depending on their roles at the time in channeling development partner funds. The Ministry for Health monitors water and sanitation quality through the Center for Sanitary and Epidemiological Services, but center's capacity is limited. Sector governance is weak overall (para. 8).

18. The government spends around 0.3% of the budget on subsidies to cover WSS sector operating costs. Capital investments are financed by development partners. This support includes the \$101 million Taza Suu Program (footnote 2); ADB's \$37.5 million ISDP; \$28 million from ADB for Osh, Jalal-Abad, and Bazar-Korgon water supply, part of the Emergency Assistance for Recovery and Reconstruction Project (EARR);<sup>3</sup> the \$28 million World Bank Bishkek and Osh Urban Infrastructure Project; and the \$10 million Swiss State Secretariat for Economic Affairs Karakol Water Supply Project. Considering weak sector governance, these projects are only slowing down the decline of the WSS sector and are unlikely to be sustainable.

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<sup>3</sup> ADB. 2010. *Report and Recommendation to the President for the Board of Directors: Proposed Loan and Grant to the Kyrgyz Republic for the Emergency Assistance for Recovery and Reconstruction Project*. Manila.

19. The government recognizes the sector problems and has committed to improving sector accountability and implementing reforms. It is developing a new rural WSS model that includes anticorruption measures, comprehensive supervision, and greater participation by local authorities and beneficiaries. Civil society is involved in the implementation of WSS projects, and nongovernment organizations are members of project tender committees.

20. **Urban development policy.** The urban sector is primarily governed by the law on local government and local self-administration. No national policy exists for the development of urban areas. The Association of Municipalities of the Kyrgyz Republic was established in 2000 to promote the interests of local governments. The Medium Term Development Plan and Country Development Strategy propose a focus on regional development and secondary cities.

### **3. ADB Sector Experience and Assistance Program**

21. ADB has two active urban projects in the Kyrgyz Republic: the EARR and the ISDP. Both are integrated urban development projects. The ISDP includes activities to improve in WSS, Solid Waste Management, municipal finance, and urban planning. The EARR aims at improvements in WSS and housing. Both face implementation difficulties in (i) a lack of Government capacity, and understanding of ADB procedures; (ii) low interest from international bidders due to small contract value and country risks; and (iii) archaic technical standards.

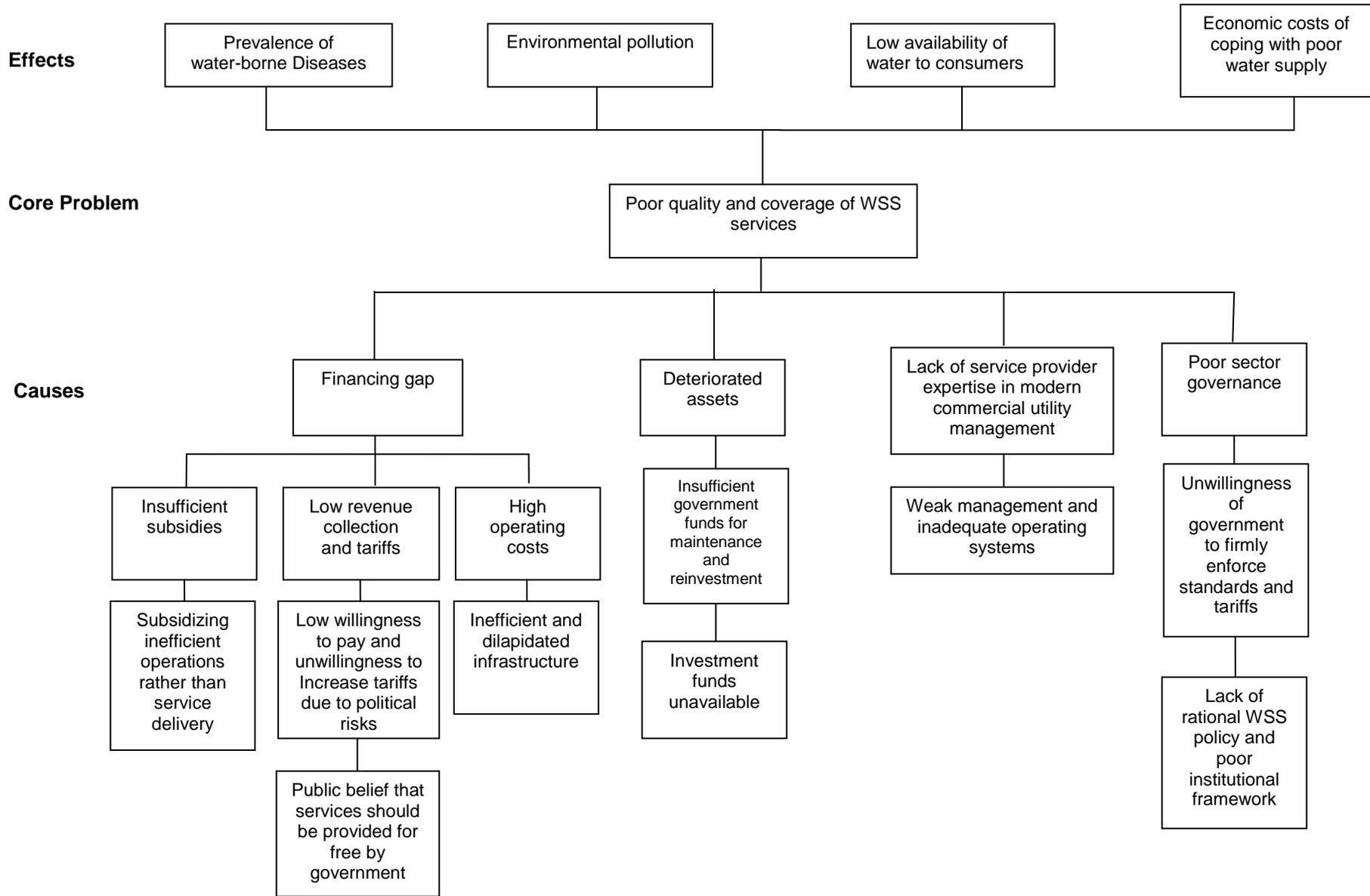
22. ADB also experienced difficulties in carrying out the Community-Based Infrastructure Services Sector Project in the rural WSS sector, which was cancelled. Key issues were (i) integrity breaches, (ii) the low capacity of government implementation staff, (iii) poor application of subproject selection criteria, (iv) an unsustainable institutional model, (v) poor execution of works, and (vi) violations of ADB procedures. ADB is financing two regional technical assistance (TA) projects that cover the Kyrgyz Republic. They aim to establish the effects of climate change on the availability of water resources and develop a strategy for managing water resources.

23. Despite the challenges, ADB will maintain its focus on the WSS sector, and rural WSS in particular. This is because (i) rural WSS improvements will address a key aspect of non-income poverty, help achieve Millennium Development Goals, and contribute to inclusive economic growth; (ii) the government recognizes sector problems and has committed to improve sector accountability and implement reforms; and (iii) ADB has carried out analysis of the lessons learned from its past sector experience, in consultation with civil society and the government.

24. ADB will support development of new approaches to rural WSS while simultaneously working on sector reform. TA to develop rural WSS policy is planned, building on rural WSS strategy being prepared by World Bank. The TA will develop an institutional framework for rural WSS and provide capacity development to strengthen the executing and implementing agencies for future projects. The latter step was one of the key recommendations to emerge from analysis of ADB's past experience in WSS undertakings in the country. Reforms under the TA will develop new service standards, tariff and subsidy mechanisms, and technical standards and ensure transparent enforcement of these sector rules and regulations.

25. In the future, ADB will consider addressing wider urban issues and supporting the government's concept of regional development by providing TA for integrated urban development plans. Furthermore, if rural WSS sector reforms under TA project were successful and capacity for project implementation was demonstrably improved, ADB would finance a new rural WSS project and provide additional financing for the ISDP.

## Problem Tree for Water Supply and Sanitation



### Sector Results Framework (Water Supply And Other Municipal Infrastructure and Services, 2013–2017)

Country Sector Outcomes		Country Sector Outputs		ADB Sector Operations	
Outcomes with ADB Contribution	Indicators with Targets and Baselines	Outputs with ADB Contribution	Indicators with Incremental Targets	Planned and Ongoing ADB Interventions	Main Outputs Expected from ADB Interventions
More people access improved water supply and sanitation	<p>92% of population using clean potable water by 2015 (2011 baseline: 91.5%)</p> <p>40% of population using sewerage by 2015 (2010 baseline: 26.4%)</p>	Water supply and sanitation systems expanded and improved	<p>139 km of water supply pipes installed or rehabilitated by 2016</p> <p>25 km of sewer lines installed or rehabilitated by 2016</p> <p>509,000 people receive new water supply connections or receive improved service from existing connections, by 2017</p> <p>78,000 people benefit from new sewerage connections, new sanitation facilities or receive improved service from existing sewerage connections and sanitation facilities, by 2016</p> <p>103,000 people benefit from improved solid waste collection, by 2016</p>	<p><b>Planned key activity areas:</b> Urban and rural drinking water systems, urban sanitation systems, wastewater management, urban garbage collection, waste transport, waste disposal (85% of funds)</p> <p>Operation and maintenance, tariff policies, sector development, urban and rural governance (15% of funds)</p> <p><b>Pipeline projects with estimated amounts:</b> New Rural WSS Project (\$20 million) Issyk-Kul Sustainable Development Project (Additional Finance) (\$30 million)</p> <p><b>Ongoing projects with approved amounts:</b> Issyk-Kul Sustainable Development Project (\$30 million) Emergency Assistance for Recovery and Reconstruction (\$28 million)</p>	<p><b>Planned key activity areas/pipeline projects:</b> 120 km of water supply pipes installed or rehabilitated</p> <p>102,000 people receive new water supply connections or receive improved service from existing connections</p> <p><b>Ongoing projects:</b> 25 km of sewer lines installed or rehabilitated</p> <p>12 km of water supply pipes installed or rehabilitated</p> <p>70,000 people benefit from new sewerage connections, new sanitation facilities, or receive improved service from existing sewerage connections and sanitation facilities</p> <p>103,000 people benefit from improved solid waste collection</p>

km = kilometer, WSS = water supply and sanitation.

Sources: ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Asian Development Fund Grant to Kyrgyz Republic: Issyk-Kul Sustainable Development Project*, Manila, ADB, 2010, *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Grant to Kyrgyz Republic: Emergency Assistance for Recovery and Reconstruction*, Manila; Asian Development Bank estimates.