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Surkhandarya Water Supply and Sanitation Project, Uzbekistan

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Summary

Surkhandarya region is located in the extreme south-east of the Republic of Uzbekistan. The region has a well-developed transport infrastructure and the only river port of Central Asia. However, there has been increasing need to improve the quality and coverage of water supply and sanitation services by replacing aging and deteriorating infrastructure. The Surkhandarya Water Supply and Sanitation Project was intended to lead to improved living standards, environment and health for 340,000 people in 7 districts of 13 provinces. The project was comprised of five components viz., strengthening sectoral strategy and management, water supply development, sanitation and hygiene, capacity development for service delivery, and project implementation assistance. The project aims to provide safe and reliable water supply for at least 20 hours per day, with reduction in water borne disease among children below 14 years by the year 2020. A national water supply and sanitation sector strategy, road map, and investment program until 2020 were developed, along with various other reforms by the government. Moreover, improved sanitation practices and positive hygiene behavior among schoolchildren were achieved, along with various hygiene promotional activities such as training, dissemination etc., Improvement in management capacity and efficiency, fostering professionalism and development of better customer orientation to improve services among the *vodokanals* (operators of water supply system) were realized through training, workshops, and national and international study tours.

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Acronyms and Abbreviations

ADB	Asian Development Bank
EIRR	Economic Internal Rate of Return
FIRR	Financial Internal Rates of Return
ICB	International Competitive Bidding
ICT	Information and Communications Technology
IWMI	International Water Management Institute
Km	Kilometer
MDTF-WFPF	Multi-Donor Trust Fund of the Water Financing Partnership Facility
O&M	Operation and Maintenance
PCR	Project Completion Report
PIU	Project Implementation Unit
PMC	Project Management Consultant
PMU	Project Management Unit
PPP	Public Private Partnership
RCM	Resolution of the Cabinet of Ministers
SDR	Special Drawing Rights
TA	Technical Assistance
UCSA	Uzbekistan Communal Services Agency *(Kommunhizmat)*
USD	United States Dollars
WSS	Water Supply and Sanitation

1 Introduction

Surkhandarya, a region of the Republic of Uzbekistan (hereafter, referred as Uzbekistan), is located in the extreme south-east of the country and borders Qashqadaryo region, and Turkmenistan, Afghanistan and Tajikistan. Surkhandarya region has a population of about 2 million with 80 % living in rural areas as per 2005 statistics. The regional capital is Termez with population of 122,900 (data for 2005). The region has a well-developed transport infrastructure and the only river port of Central Asia. Figure 1 shows the location of Uzbekistan in Central Asia. Over the last 25 years, the population of the nation has increased by about 50%, which in turn has increased the demand for water. Out of 123 km^3 of the water resources of the Aral Sea basin, only 9% originate within the territory of Uzbekistan. Moreover, climate change has led to the concerns of water-related risks, such as droughts. The growing challenge of water distribution is attributed to aging water management infrastructure.

Figure 1: Location of Uzbekistan in Central Asia (UTAUS, 2019)

The Government of Uzbekistan, with its development partners, works to overcome these challenges. Efforts include the introduction of integrated water resource management (IWRM) principles, Water Consumers Association (WCA) to deliver water to farmers and communities, and several water and energy saving technologies. Donor-financed projects have developed capacity building strategies for water professionals and communities. There have been many water-related programs implemented by donors, development agencies and international research organizations since 1991. A wide range of multilateral and bilateral donor agencies have made significant contributions in the water sector of Uzbekistan (IWMI, 2017). As depicted in Figure 2, Surkhandarya province is the least covered in terms of the number of water related projects per province in Uzbekistan. By including this under-represented province, the donor community helped to achieve more balanced and uniform level of development across provinces.

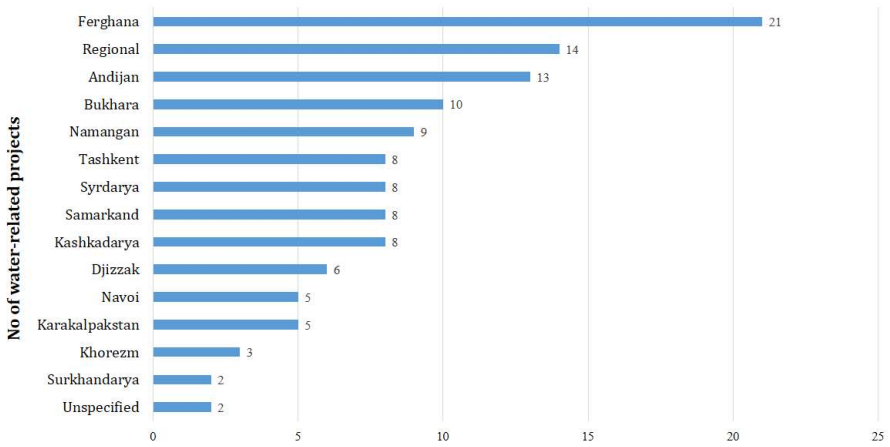

Figure 2: Distribution of water-related projects in Uzbekistan by provinces (IWMI, 2017)

Uzbekistan's water supply and sanitation (WSS) infrastructure was designed and constructed under the central planning regime of the former Soviet Union. Therefore, there has been an increasing need to improve the quality and coverage of WSS services by replacing aging and deteriorating infrastructure, after the independence in 1991. The outdated sector strategy and planning, inappropriate standards, limited financial resources, and weak institutional capacity were key challenges for the government. Despite the WSS system's high network coverage, households were supplied with water for only 6–16 hours a day in urban areas and 2–10 hours a day in rural areas. The nationwide estimate on unaccounted-for water was over 50%. Nonperforming infrastructure, power outages, and lack of revenue hindered better service.

The Government of Uzbekistan requested the assistance of the Asian Development Bank (ADB) to support the strengthening of WSS planning and management at the national level and improving WSS services at the provincial level. The key challenges for the government were an outdated sector strategy, inappropriate standards, limited financial resources, and weak institutional capacity. The project was completed in January 2015 and ADB project completion report (PCR) published in July 2016 and assessed the project to be highly relevant, effective, efficient, and likely sustainable (ADB, 2016). The Surkhandarya Water Supply and Sanitation Project was intended to lead to improved living standards, environment, and public health for 340,000 people in 7 districts of 13 Surkhandarya provinces viz., Angor, Jarkurgan, Kizirik, Kumkurgan, Muzrabad, Sariasiya, and Shurchi and the capital city of Termez. The project comprises of five components viz., (i) strengthening sector strategy and management, (ii) water supply development, (iii) sanitation and hygiene, (iv) capacity development for service delivery, and (v)project implementation assistance. The project aims to provide safe and reliable water supply for at least 20 hours per day to 90 % of the population and reduce waterborne diseases by 40 % per 100,000 children under 14 years by the year 2020. Figure 3 shows the map of Surkhandarya Water Supply and Sanitation Project in Uzbekistan.

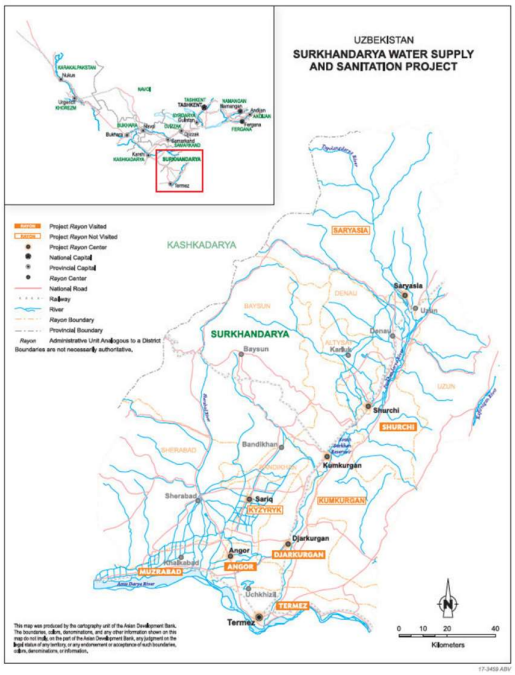

Figure 3: Map showing Surkhandarya Water Supply and Sanitation Project in Uzbekistan (ADB, 2018)

The project was designed under an ADB project preparatory technical assistance. High level of stakeholder participation and ownership by the beneficiary communities were involved for the project design. Previous experiences were incorporated and the critical institutional and operational challenges and investment gaps. Moreover, the project aligned with the WSS reforms of the Government of Uzbekistan and strategies and investment programs of ADB, which prioritized sustainable WSS sector development and inclusive service delivery (ADB, 2018).

Table 1: Overview of the water supply project (ADB, 2016)

Items		Description
Project Name	:	Surkhandarya Water Supply and Sanitation Project
Type	:	Water Supply and Urban Infrastructure
Donor Name	:	i. Asian Development Bank (ADB), ii. Multi-Donor Trust Fund of the Water Financing Partnership Facility iii. Uzbekistan Government

Project rationale and objectives	:	i. To improve water supply and sanitation services and improve hygiene through the replacement of aging and deteriorating infrastructure, hygiene promotion, and institutional support. ii. To support sectoral reforms and improve water supply services.
Project Components		i. Strengthening sector strategy and management ii. Water supply development iii. Sanitation and hygiene iv. Capacity development for service delivery v. Project implementation assistance
Project Fund	:	Total: USD 40 million Asian Development Bank: USD 30 million Multi-Donor Trust Fund of the Water Financing Partnership Facility: USD 1.50 million Uzbekistan Government: USD 8.50 million
Project Duration	:	July 2009 – March 2015 (revised)

2 Technical and Technological Brief

Component 1. Strengthening of Sector Strategy and Management

Promotion of economic use of water resources and improvement in water supply and wastewater sector planning and management were aimed through the project component. Development of integrated water sector profile, water supply and wastewater sector strategy, including a public–private partnership (PPP) framework, and water supply and wastewater sector development road map and comprehensive investment plan were realized. The national water supply and sanitation sector strategy, road map, and investment program for Uzbekistan until 2020 were prepared in 2012, which strengthened the sectoral reform agenda and created a platform for the government to establish its mid- and long-term vision and strategy for the WSS sector development. The government has taken a phased approach in implementing sectoral reforms. The government has also developed an integrated midterm action plan for the WSS Program and enacted a number of RCMs. Various reforms were focused on the improvement of WSS sector performance. Few of the many reforms include reforming institutional structures and regulatory framework of the WSS sector, strengthening the management and operation of WSS utilities, improving the financial management and tariff structure, establishing information and communications technology (ICT) system and metering, and rehabilitating and expanding infrastructure with introduction of energy-saving technologies and equipment.

The institutional restructuring has provided a greater role and responsibility to "*Uzkommunhizmat*" (Uzbekistan Communal Services Agency or UCSA) at the central level and to the *vodokanals* (operators of water supply systems) at the local level. The provincial *vodokanals* are responsible for operation and maintenance (O&M) of WSS services throughout the province, while each *vodokanal* at the district level serve as a branch of the provincial *vodokanal*. UCSA became responsible for monitoring the performance of each *vodokanal* and developing its capacity. The government has also developed detailed investment plan, which has been supported by the development partners, who include ADB, the World Bank, the Islamic Development Bank, and the governments of different countries. The government approved the Sector Strategy Action Plan 2015–2019, road map, and investment plan for the WSS sector until 2020.

Component 2. Water Supply Development

Improvement in water supply systems in the city of Termez and seven districts of Surkhandarya province: Angor, Djarkurgan, Kizirik, Kumkurgan, Muzrabad, Sariasiya, and Shurchi were the aim of the project component. A total of 40 existing boreholes were rehabilitated and 14 new boreholes were constructed. Similarly, 53.3 km of existing trunk mains were rehabilitated and 24.9 km of trunk mains were constructed newly. A total of 20 existing reservoirs were rehabilitated and 7 new reservoirs were constructed. 10 existing water intake stations were rehabilitated. 12 existing pumping stations were rehabilitated and 1 new pumping station was constructed. Chlorination facilities were installed at all water distribution centers. Rehabilitation of 148.9 km of existing distribution networks and construction of 156.3 km of new distribution networks were accomplished. 288.8 km of service networks and 69,632 house connections (12,452 metered and 57,180 unmetered) were installed. The project component also includes structural improvements in the *vodokanal* office buildings and supply of O&M equipment.

Component 3. Sanitation and Hygiene

Provision of safe drinking water and ventilated pit latrines and septic tanks were accomplished in this component. Piped water supply were provided at all schools in the project area. *Makhalla* (local self-governing community) and mass-media channels were involved for hygiene promotional activities. Training materials such as pamphlets, brochures, and posters were developed and distributed. Stakeholders to support the activities include neighborhood *makhalla* activists, schoolteachers, and nongovernment organizations such as rural resident communities and women's committees. Health benefits were ensured by improving water supply, sanitation and hygiene services, which in turn prevents water borne diseases. The sanitation and hygiene component of the project was disseminated to households. Medical staffs were educated to address health problems related to school sanitation and hygiene. At schools, teachers were trained along with the formation of "health and sanitation club" to promote awareness about sanitation and hygiene among children. Community leaders, consumer representatives, project support groups, and journalists were also trained. A provincial resource center was established in Termez to conduct sanitation and hygiene trainings and develop awareness materials. The tutorial textbook on "practice-based education on basic hygiene and sanitation" was developed. Stakeholders facilitated the circulation and distribution of booklets and brochures. High level of local stakeholder participation and

ownership by the beneficiary communities were the outcome of the project component. Figure 4 shows improvement in water supply and sanitation amenities, accomplished through the project.

Figure 4: Improved Water Supply and Sanitation among public and school children in Uzbekistan (ADB, 2018)

Component 4. Capacity Development for Service Delivery

Improvement in management capacity and efficiency, fostering professionalism among the *vodokanals*, and development of better customer orientation to improve services were the broad aim of this component. The capacity development training program was prepared based on the needs of the *vodokanals* in close consultation with all stakeholders. Training workshops in O&M of WSS systems, social gender and public awareness, information technologies, and computerization systems, and a seminar on financial management and tariff policies were conducted. In order to understand national and international best practices in professional WSS delivery, study tours were conducted for key officials. Three national tours and international study tours to South Korea, France, and Spain were conducted, with the participation from the Ministry of Finance, the Ministry of Economy, UCSA, and the Surkhandarya provincial government. The officials were exposed to water supply enterprises and PPP projects in the countries visited. A workshop was also organized to receive feedback. A performance monitoring and benchmarking systems was established in the subproject *vodokanals,* whose management is computerized by the provision of furniture and office equipment.

Component 5. Project Implementation Assistance

The component was to assist the project management unit (PMU) and project implementation unit (PIU). Project Management Consultant (PMC) was appointed for the purpose of project management and monitoring, preparation of bidding documents and bid evaluation, financial management and accounting, construction supervision, and social, environment, and resettlement management and monitoring. The services of the PMC were availed from 2010 to 2014.

3 Financial brief

The total project cost, including interest charges and contingencies, was estimated at $40.00 million, comprising USD 10.25 million in foreign currency and USD 29.75 million in local currency. The ADB loan was envisaged to finance USD 30.00 million (75.0%) of the total project cost to cover the foreign exchange cost of USD 9.90 million, including USD 0.70 million for interest and other charges during construction, and USD 20.10 million of the local currency cost of components 2, 3, and 5. The MDTF-WFPF grant was envisaged to finance USD 1.5 million (3.7%) of the total project cost to cover the foreign exchange cost of USD 0.60 million and USD 0.90 million of the local currency cost of components 1 and 4. The government, including district governments, financed the remaining local currency costs of USD 8.50 million equivalent (21.3%). The loan agreement for SDR 19.357 million (USD 30.00 million equivalent) loan funds from ADB's Special Funds resources and the grant agreement for $1.50 million grant funds from Multi-Donor Trust Fund of the Water Financing Partnership Facility (MDTF-WFPF) were signed on 20 April 2009 and became effective on 27 July 2009 (ADB, 2009). The grant fund was used for hiring consulting services (including sector strategy development, capacity development, and study tours) and procurement of equipment and materials. The project cost by different component is presented in Table 2.

Table 2 Project Investment Plan

Item	Project component	Amount (USD million)
A.	**Base Cost**	
	1. Strengthening of Sector Strategy and Management	1.0
	2. Water Supply Department	29.9
	3. Sanitation and Hygiene	0.9
	4. Capacity Development	0.5
	5. Project Implementation Assistance	1.3
	Subtotal (A)	**33.6**
B.	**Contingencies**	**5.7**
C.	**Interest and Other Charges during Construction**	**0.7**
	Total (A+B+C)	**40.0**

At project completion, the civil works contracts amounted to USD 20.10 million. Actual mechanical and equipment expenditures was USD 6.81 million. Consulting services contracts totaled USD 2.58 million. Loan funds were reallocated between the categories, including the use of loan savings, upon ADB approval on 19 March 2014 to cover excess cost. Grant funds were also reallocated to purchase two water measuring devices, using savings from the category of consulting services. The actual project cost at completion amounted to USD 40.00 million. ADB financed USD 29.70 million (75.1%) through the Asian Development Fund and USD 1.50 million (3.8%) from MDTF-WFPF, while the government financed USD 8.30 million (21.1%). The government issued a resolution approving the project, which included an exemption from local taxes and duties for all goods, works, and services purchased under the project. Successful

implementation of the sectoral reforms and capacity development activities was possible through the use of grant funds.

4 Project Features

4.1 Technical and technological features (ADB, 2016)

1	WSS sector strategy, including PPP framework	1) WSS sector strategy was prepared in 2012. Government has been taking a phased approach in implementing sector reforms and has enacted a number of legislative documents. 2) Sector Strategy Action Plan, road map, and investment plan for the WSS sector in Uzbekistan until 2020 was approved. 3) Private sector participation in the WSS sector to be introduced in a phased manner.
2	WSS development road map and investment plan for 2020	1) Road map was prepared in 2012 and being adopted step by step. 2) RCMs were issued for comprehensive development and modernization of WSS systems and to materialize various strategy directions.
3	Rehabilitated water supply infrastructure in urban centers of seven districts and Termez	1) 20 reservoirs, 40 boreholes, 12 pump stations, 53.3 km of trunk mains, and 148.9 km of distribution networks were rehabilitated 2) 7 reservoirs, 14 boreholes, 1 pump station, 24.9 km of trunk mains, and 156.3 km of distribution networks were constructed 3) A total of 69,632 households were connected with water meters through 288.8 km of service pipelines (D=20–50mm). Of all, 12,452 meters were installed under the project.
4	Improved latrines (with handwashing facilities) in selected schools in project areas	17 schools were provided with improved latrine facilities and water supply
5	Innovative hygiene promotion activities in school communities in project areas	1) 65 schools in the project area: Termez – 20, Kizirik – 5, Angor – 2, Muzrabad – 16, Kumkurgan – 6, Jarkurgan – 7, Shurchi – 4, Sariasia – 4, and Surkhan WDC – 1 were provided with a piped water supply. 2) 1,145 people were trained, of whom more than 77% are women

6	Improved and well-maintained *vodokanal* offices, equipment, and infrastructure	All *vodokanals* received new furniture and equipment, along with customer care units.
7	Training program to improve operations, management, and customer relations skills developed, implemented, and evaluated	1) Consumer databases were developed and consumers registered in all *vodokanals* 2) Computerized financial management systems were adopted in all *vodokanals*. 3) An O&M manual has been developed for each *vodokanal* and adopted
8	Performance monitoring system for participating vodokanals	Performance benchmarking system with technical, financial, and institutional indicators established.
9	Study tours to places with good-practice examples	Three national and international study tours were conducted for *vodokanal* staff followed by a feedback workshop, with 32% women participation.

4.2 Economic and financial features

The project is efficient in financial and economic terms. The economic internal rate of return (EIRR) and financial internal rates of return (FIRR) are found to be satisfactory, taking into account factors such as time savings and the economic benefits of improved water delivery, improved health, and increased revenue. FIRR of the subprojects were reevaluated using discounted cash flow analysis. The cost streams include capital investment and O&M costs. Revenues are generated mainly from water sales. The FIRRs at project completion range between 5.4% and 6.3%, averaging 5.6%. The average FIRR at project completion is slightly higher than that 5.5% as envisaged. As actual subproject operating costs are higher partly due to cost inflation, while actual demand is lower than projected, corresponding tariff adjustments become necessary to ensure sustainable operations. 11 subproject exceeds the reevaluated weighted average cost of capital estimated at 4.30%, thus reaffirming financial viability. Full cost recovery was achieved for all subprojects. Operating ratios range between 0.29 (Termez) and 0.73 (Djarkurgan), while debt coverage ratios are higher than the minimum acceptable at 1.5 (except in Muzrabad in the initial years). The *vodokanals* have been applying the new per-capita tariff for non-metered consumers since 2013. With the tariff, all *vodokanals* have been able to attain positive net cash flows. The financial and affordability analyses showed that all beneficiaries, including poor households, could afford the tariff increases. The estimated EIRRs for the subprojects at completion range between 20.0% and 28.7%, averaging 23.5%. The recalculated overall EIRR is lower than the 32.1% estimated. EIRRs envisaged range between 24.4% and 39.7%. The reevaluated EIRRs are lower mainly due to the higher overall project cost and the longer implementation period. Nonetheless, the recalculated EIRRs for all subprojects exceed the threshold economic opportunity cost of capital of 12%, rendering the project economically viable (ADB, 2016).

4.3 Social and environmental features

The project interventions were found to have positive impact on the poor directly or indirectly. The project was categorized with a gender equity theme. A project-specific gender action plan was prepared to promote the equal participation of female and male stakeholders in project-related activities. Significant percentage of women was observed at project support group and public meetings. Gender-specific actions relating to sanitation and hygiene promotion developed a network of stakeholders to support the activities, including neighborhood *makhalla* activists, schoolteachers, rural communities, and women's committees. The capacity development component involved the participation of women: 30% of the persons trained on water supply management, 12% of the participants in the study tours, and 30% of the participants in community-level training activities were women. About 25% of the core positions at the *vodokanal* are held by women. Women are also hired to the position of customer care unit in each *vodokanal* to receive and address women's complaints. The project benefited about 340,000 people, of whom almost 50% were women. Improved sanitation practice and positive hygiene behavior among schoolchildren was accomplished. Overall, the living standards and public health was improved in the city of Termez and seven districts of Surkhandarya province

According to government rules and regulations, the project was classified in the "low risk environmental impact" category and had no significant adverse environmental impact. National environment protection measures were incorporated into the project design and bidding documents. The project was designed in accordance with ADB's Environmental Policy (2002), its Environmental Assessment Guidelines (2003), and national legislation. There was no negative impact on the environment due to the technology adopted, and project related activities were designed to mitigate any negative impact on the environment or to have a minimal impact. An environmental management and monitoring plan (EMMP) was also developed. Environmental mitigation and monitoring procedures were followed to avoid negative construction impacts. The activities included cleanup of construction sites, proper disposal of spoils, grading and revegetation of damaged lands, and protection of the public from excessive noise and dust during construction. An environmental monitoring group (EMG) was established in the year 2013.

Environmental concerns during construction were addressed through measures such as protection of water sources, proper collection and disposal of construction waste, provision of appropriate safe work conditions, improved sanitation and hygiene conditions, and increased awareness of local authorities, people, and contractors about the importance of protecting the environment. Engaging local authorities and nongovernment organizations were engaged in environmental monitoring and hygiene awareness programs. Scrap metals were stored properly and sent to a designated processing company for recycling, whereas old transformers were collected by a specialized electricity company to be disposed of in accordance with procedures for oil-containing power equipment. Land and surface water pollution was prevented through ventilated pit latrines with septic tanks and provision of safe drinking water in public schools.

5 Project Benefits

Project was intended to lead to improve living standards, environment, and public health in the city of Termez and seven districts of Surkhandarya province: Angor, Djarkurgan, Kizirik, Kumkurgan, Muzrabad, Sariasiya, and Shurchi. 90% of the population would be provided with safe and reliable water supply for at least 20 hours a day by 2020 and waterborne infections per 100,000 children under 14 years in Surkhandarya would be reduced by 40% by 2020. Thus, the primary focus of the project was improved water supply, which was intended to reach 340,000 urban residents by project completion. Equitable access to a safe and reliable water supply to urban and rural communities and vulnerable groups was ensured through this project. Out of all the beneficiaries, the poor comprised 32% of the 340,000 project beneficiaries. The beneficiaries comprised 3,079 low-income families, including 47% of households headed by women. The benefits include reduced drudgery, improved health, and reduced expenditure on health care. Existing gender issues in the water supply sector were incorporated into the project design.

Mid- and long-term vision and strategy for the WSS sector development in 13,235 rural settlements and towns and about 65 cities were established by the government. Safe drinking water and sanitation amenities such as new latrines were provided in schools covered in the project area. This leads to improved sanitation practice and positive hygiene behavior among the population in general and among schoolchildren in particular. Diseases are prevented and maximum health benefits are ensured from the improved infrastructure services. Development of Hygiene promotion activities, provincial resource center, tutorial textbook on “practice-based education on basic hygiene and sanitation”, stakeholder training etc., were realized. Improvement in management capacity and efficiency, fostering professionalism among the *vodokanals*, and development of better customer orientation to improve services through training, workshops, and national and international study tours were accomplished. The rehabilitated and newly constructed infrastructure saves on cost and time for purchasing water. These savings are significant, amounting to about 30% of family monthly incomes in rural areas. As indicated in Figure 5, the households receivedan increased water supply of 14.5 hours per day by 2017.

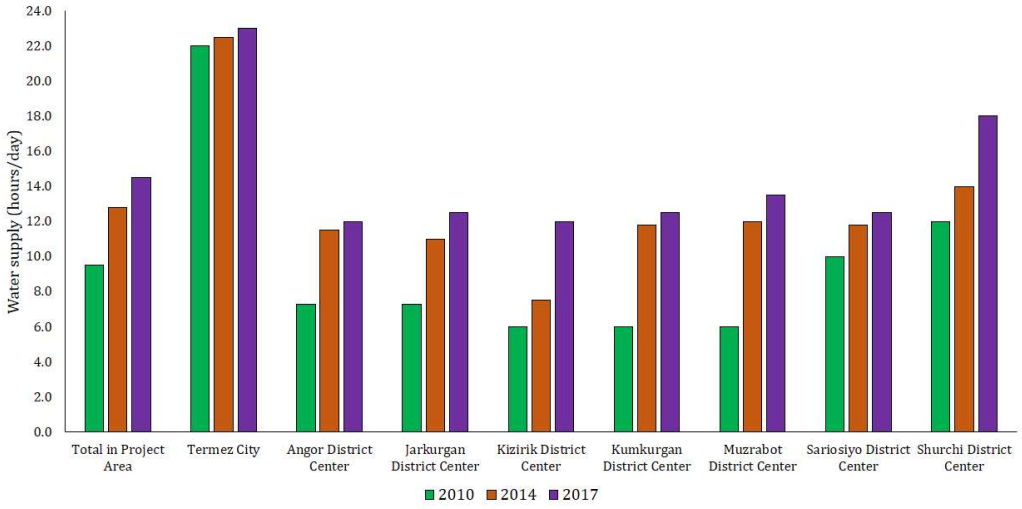

Figure 5: Comparison of household water supply through the years (ADB, 2018)

Strengthening of sector strategy and management was realized through this project. Project management support was also provided to the project management unit (PMU) and the project implementation unit (PIU) in implementing the project. Presently, the government is pricing water so as to allow the *vodokanals* to operate profitably. With adoption of the province-wide management structure, counter balancing the more profitable *vodokanals* to support the less profitable is possible. Tariffs have been increasing steadily and now are uniform across the province as presented in Figure 6.

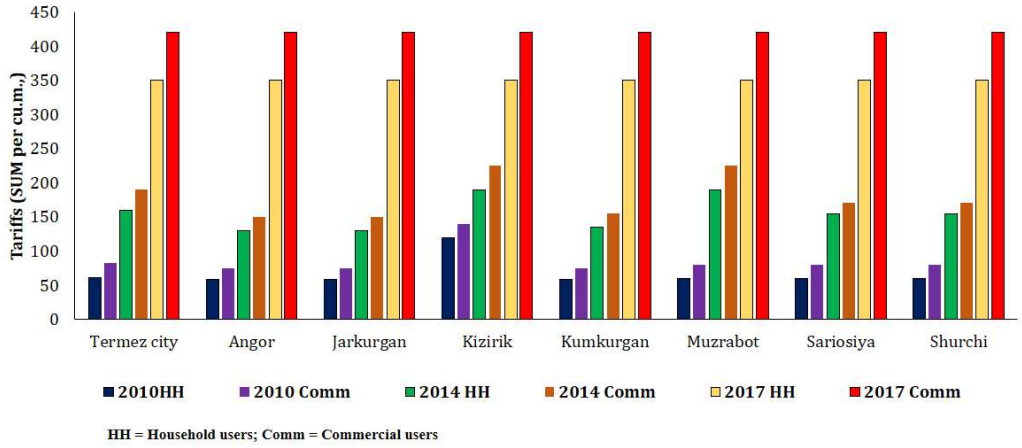

Figure 6: Tariffs (SUM per m³) from 2010 to 2017 (ADB, 2018)

6 Implementation status of the project

It was envisaged that the project would be implemented over 5 years, from early 2009 to March 2014. ADB approved the loan on November 2008 which became effective on July 2009. UCSA was

the executing agency and had overall responsibility for project coordination, implementation, and liaison with the relevant government agencies and ADB. At the provincial level, the Surkhandarya provincial government was the implementing agency whereas at the community level, a consumer representative and project support group was established. The appointment of PMC for detailed design, project implementation assistance, and sector strategy study were taken in early 2009. Accordingly, detailed designs and land acquisition and resettlement plans (LARPs) for Group 1 (Angor, Kizirik, and Muzrabad) and Group 2 (Djarkurgan, Shurchi, Sukhan, and Kumkurgan) were completed in 2010, and Group 3 (Sariasiya and Termez) was completed in 2011. Despite project startup delays, six civil works contracts, including three international competitive bidding (ICB) contracts for the Muzrabad, Djarkhurgan, and Surkhan subprojects, were awarded in 2010, while those for Shurchi, Sariasia, and Termez subprojects were awarded in 2011. The civil works for most of the subprojects were substantially completed in 2014. After the commissioning tests, the completed water supply systems were put into operation. The contracts of consultants were completed by September 2014 as originally scheduled. The project implementation arrangements designed were basically adequate to deliver the project outputs.

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