

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: AB6368

Project Name	Dushanbe Water Supply Project II
Region	EUROPE AND CENTRAL ASIA
Sector	Water supply (100%).
Project ID	P118196
Borrower(s)	GOVERNMENT OF TAJIKISTAN
Implementing Agency	
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1. Country and Sector Background

A land-locked country, covered with mountains for over 90 percent of its surface, and dramatically affected by a civil war (1992-1997), Tajikistan is one of the poorest country in the ECA region. Notwithstanding the relative stability following the end of the war and an average economic growth rate of 8.6 percent per year between 2000-2008, 41 percent of the population lives below the poverty line, with a per capita GNI of US\$560. Achievement of the Millennium Development Goals (MDGs) is unlikely by 2015; the availability of sustainable drinking water and sanitation services, continues to remain a challenge in both urban and rural centers, only 59 percent of the population has access to public water supply (versus the 79 percent MDG target for 2015). In urban areas, approximately 50 percent of the population has house connections and 32 percent yard connections. In rural areas, only 20 percent have access to centralized water supply systems, mainly through public standpipes and yard connections. Water quality in most systems does not meet national drinking standards and service interruptions are frequent. Furthermore, only 14 percent of the population has access to centralized sanitation services (44 percent in urban areas and 3 percent in rural areas). Most of the infrastructure is of Soviet-era inheritance, hampered by fast deterioration, poor operation and maintenance, and weak institutional capacity.

Responsibility for the delivery of urban water and sewerage services has been decentralized to the municipal authorities (Hukumats). A central Government agency¹ provides oversight and operational support to all municipal operators, except for the capital city of Dushanbe where the Dushanbe water supply and sewerage utility, or Dushanbe *Vodokanal* (DVK), was established as

¹ State Unitary Enterprise “Khojagii Manziliyu Kommunalii” (KMK).

a “State Unitary Enterprise”, and operates under the direct control of the Municipality. World Bank-financed improvements to urban services in Tajikistan have been mainly focused on water supply delivery, through two ongoing operations, i.e. the *Dushanbe Water Supply Project (DWSP)*, and the *Municipal Infrastructure Development Project (MIDP)*, targeting provincial towns ongoing since 2006.

Dushanbe features fairly developed yet degraded water supply and sanitation (WSS) infrastructure. Decades of underinvestment and DVK’s limited technical and managerial capacity have caused levels of water supply loss (physical and commercial) and consumption (demand approaches 1000 l/c/d) to be extremely high. Poor quality surface water (representing about 50percent of DVK sources) is often distributed in parts of the system without sufficient treatment. Sewerage assets suffer extensive degradation, resulting in chronic sewer overflows. A decrepit secondary sewage treatment plant only provides marginal pollution reduction, with serious environmental impacts on the Varzob River.

Against this background, the IDA-funded DWSP, started in 2002 and due to close in June 2011,² has contributed, along with investments from other donors³, to significant but partial improvements in water supply reliability, safety and quality in the city. Almost 40 km of pipe network were replaced, pumping facilities for groundwater extraction upgraded, energy-efficient equipment installed, filter and chlorination systems partially renovated, and production and consumption meters purchased. With the premature termination of a public private partnership (PPP) under which the operation, maintenance and management of DVK had been contracted to private operator, the institutional capacity of DVK has not radically improved.

Vast infrastructure upgrade needs continue to be unmet in the water system, and possibly more importantly, in the sewerage system. A 2010 study assesses DVK’s overall WSS rehabilitation, renewal and expansion needs at up to about US\$400m by 2035 – including the development of new remote water sources and the extensive upgrading of the sewage collection and treatment systems⁴. Urgent needs for rehabilitation of water and sewerage infrastructure are so large that unfunded priorities over the period 2010-2017 have been assessed to exceed \$40m⁵. In this seven-year horizon, targeted rehabilitations are needed to strengthen the reliability and quality of water supply operations- among others the critical renewal of pumping and storage facilities in the area served by NAP water treatment plant (WTP) and the rehabilitation of the filtration capacity of the SAM WTP area are urgently required. More strategically, multi-year programmatic investments are needed system-wide to substantially reduce losses and wasteful water demands, and improve operational cost-efficiency, and foster long-term sustainability of DVK⁶.

2. Objectives

² The *Implementation Completion Report (ICR)* draw the lessons of DWSP.

³ Islamic Development Bank (IsDB).

⁴ Feasibility Study, GWCC, March 2010

⁵ Feasibility Study, GWCC, March 2010. The study assesses priority WS&S rehabilitation needs at \$36m, but incorrectly anticipates that IDB funding is already secured for rehabilitation of the SAM water treatment plant.

⁶ Including meter installation, repair and replacement of leaking mains, repair and replacement of condominal piping inside apartment buildings.

At the Client's request, the proposed IDA-funded DWSP II Repeater project will continue to focus on water supply services. This second Project aims at successfully combining investments for urgent rehabilitations with more strategic investments in demand management and institutional strengthening. With DVK's needs far in excess of available funds, Project scope and Project Development Objective (PDO) targeting must be selective so as to achieve measurable impacts. As such the PDO is *to improve utility performance and water supply services in selected areas of Dushanbe*.

This PDO is the result of long Project tailoring and maturation with the Municipality, and reconciles the city's pressing dual imperatives of safe public service and improved management performance. Achievement of the objective will be measured through improvements in water quality in selected areas of Dushanbe, improvement with service satisfaction and improvement of revenue collection and financial viability of the DVK. The objective is to be attained through (i) water treatment and distribution infrastructure upgrades to achieve water quality and service improvements noticeable by customers, (ii) metering programs and improved billing and collection systems to quickly enhance revenue generation while improving customer service, and (iii) technical assistance and capacity building activities to strengthen DVK's management and operational performance.

3. Rationale for Bank Involvement

Water, including the improved provision of water supply and sewerage services, remains a priority in the new Country Partnership Strategy (CPS) between Tajikistan and the World Bank, along with improvement of public service governance, for the period FY10-13. To date, the World Bank, EBRD and the Swiss Cooperation remain Tajikistan's main partners in the effort of rehabilitating the water supply and sewage system in the main urban areas.

A US\$12m IDA-15 grant, with US\$ 3m co-financing from the Municipality of Dushanbe, will finance selected DVK priority needs, and, optimally to leverage other donor resources. A preliminary discussion with EBRD confirmed interest and strong potential for parallel financing (Euro12m). Eurasia Bank has also expressed interest in parallel financing and could offer up to US\$20m to complement the scarce IDA resources. IDA's US\$12m grant could thus be leveraged into a project of about US\$50m. To date, commitments from other donors however have not been formalized by the GoRT.

4. Description

DWSP 2 supported components are summarized below:

Component 1. Metering and Demand Management (US\$ 6.14 million of which IDA US\$ 4.41 million): Consumption metering and bulk metering of water, for increased revenue, reduced wastage, and better tracking of losses, including: (i) supply and installation of 65,000 residential meters (i.e. approximately 40percent of DVK users) and installation of 1,500 apartment building master meters in selected areas of the city; (ii) rehabilitation of 1500 apartment building service connections; (iii) supply and installation of bulk flow meters at water production facilities; (iv)

supply and installation of a Network Information System (NIS); and (v) communication strategy and public awareness campaign to promote metering and demand management.

Component 2. Water Quality Improvement (US\$ 4.48 million of which IDA US\$ 3.22 million): System upgrades for improved quality of water, including: (i) partial renewal of filtration capacity at Samatechnaya WTP (SAM); (ii) network cleaning; (iii) installation of network rechlorination systems; and (iv) equipment for water quality monitoring units.

Component 3. Institutional Strengthening and Capacity Building (US\$ 2.62 million of which IDA US\$2.62 million): The component will finance activities to build institutional capacity and improve utility performance of the DVK, which includes (i) Carrying out an assessment of the DVK’s organizational and capacity-building needs; (ii) Installation of modern accounting, billing and water revenue collection systems; (iii) Provision of technical assistance to the management of DVK to improve its financial performance; (iv) Provision of technical assistance, and carrying out of studies to improve the water supply operations of DVK; and (v) Implementation of training programs for staff of the DVK..

Component 4. Implementation Support (US\$ 1.76 million of which IDA US\$ 1.76 million): Project Implementation support including (i) design and supervision of works; (ii) project management operating costs, and (iii) annual project audits.

5. Financing

Source:	(\$m.)
BORROWER/RECIPIENT	3.00
IDA Grant	12.00
Total	15.00

6. Implementation

At the request of the Municipality, intent on avoiding delays experienced under DWSP due to uneven DVK and PCU capacity, a dedicated technical assistance and capacity building to strengthen DVK capacity will be provided by an internationally recruited Project Management Consultant (PMC). The PMC will also be responsible for the oversight of all project activities; including overseeing the procurement of works, goods and consulting services for the project, as well as DVK’s FM of the project. It is expected that the PMC will also oversee the delivery of the following sub-contracted tasks under Component 3, namely – technical assistance to DVK to improve their financial performance, institutional assessment and staff training. DVK will be responsible for collecting all data required for the M&E of the project.

The overall project financial management function, including budgeting, accounting, reporting, internal control, funds flow and audit, will be the responsibility of the DVK with support of the PMC.. This arrangement differs from DWSP and its Additional Financing in which the PCU established by DVK and the Municipality is responsible for fiduciary responsibilities and implementation of the project. The Project will be implemented in an environment of weak

fiduciary management due to weak internal and external financial control systems. There will be limited ring-fencing of the fiduciary functions, including the use of dedicated Designated Account, maintenance of project-specific financial management system and independent audit by auditors satisfactory to IDA.

7. Sustainability

DWSP2 will build on the achievements and experience of predecessor DWSP to improve the sustainability of project investments and of DVK operations. The following include several dimensions of sustainability that are taken into account:

- a. *Sustainability of project investments:* Investments were prioritized to respect the client's paramount objective of increasing operational revenue, thus benefitting from a high level of client ownership. The quality of design and works will be improved by reliance on an internationally recruited PMC resident within DVK for the entire project duration. The operation and maintenance of the infrastructure, equipment and systems provided under the project will be relatively simple and manageable by duly-trained DVK personnel. The project will further promote adequate private sector involvement in tasks with more substantial "modernization" contents, such as the turnkey delivery and initial operation of rapid sand filters at SAM and the outsourcing of telephony-based billing, collection and payments systems.
- b. *Institutional sustainability and performance of DVK:* Despite some inefficiencies associated with the institutional capture of DVK by the Municipality exemplified by hands-on involvement in utility management and investment decision making, the project will not pursue institutional reform of DVK as a condition for performance improvement. By adopting simple and modest performance objectives focused on delivering potable water, on improving billing and collection, and on metering consumptions (objectives that are understood by DVK and the Municipality and are within their capabilities with outcomes that customers will feel immediately), the project opts to empower gradual self-improvement of utility performance. By providing advisory PMC technical assistance to DVK's management and operations, the project relies on client leadership to effect change in DVK through project-funded investments. A DVK-supplied OPIAP embodies DVK's and the Municipality's commitment to such discrete performance improvement steps. The project further assumes that increased managerial capacity, coupled with new performance incentives and relevant communication of performance goals, will not only result in service quality and performance gains but will also reduce the need for municipal interference. In the process, the frequent advisory support of Bank supervision missions will play an important role. Beyond DWSP2's strategic seeding, continued investment in DVK infrastructure, systems and capacity modernization will be essential to sustain and expand such gains. As a corollary activity to the project, the Bank will also seek to initiate and mobilize funding for a South-South knowledge transfer partnership between DVK and the St Petersburg Vodokanal.
- c. *Financial sustainability of DVK.* In addition to the above, the new project should afford a net gain in financial sustainability because its investments, although largely revenue generating, will be financed by a grant. The mobilization of substantial unbilled and uncollected revenues is expected to provide quick results for DVK, deferring the need for substantial tariff adjustments. On a more fundamental level, the project will introduce

systematic metering in parts of Dushanbe, initiating the transition to accountable water service—essential for the long-term financial sustainability of any utility.

8. Lessons Learned from Past Operations in the Country/Sector

There are several lessons to be learned from the first IDA financed phase of the project.

Governance Assessment: A Governance Assessment that was carried out by the World Bank as part of project preparation confirms a critical need to improve the DVK's institutional capacity and management quality if project outcomes are to be achieved in a timely manner in the short term but more importantly the sustainability of DVK and its future operations will be jeopardized if steps are not taken to improve its overall governance, particularly as it relates to instituting improved managerial accountability; operational transparency; staff incentives and internal/external communication. The Governance Assessment reveal the following issues plaguing DVK performance (Refer to Annex 8 for details) – i) poor management capacity; ii) lack of motivating performance incentives for staff; iii) accountability; iv) lack of access to information, v) non-payment or underpayment of user fees; and vi) lack of an M&E system. Within this context and given that the limited funding under the project it is pertinent that the Municipality and DVK commit to improving the governance and overall performance of DVK in parallel to implementing the project to ensure DVK sustainability in the future

Alternative approaches to promote DVK and Project performance. As raised above, DWSP2 success is understood as dependent on better DVK performance in areas of project implementation, utility management, and institutional governance. Based on client consultations, on DWSP supervisory experience, and on the findings of a specialized analysis of governance factors⁷, the Project design harbours different implementation arrangements and expectations than DWSP. With the express support of the Municipality, Project implementation will rely on a private Project Management Consultant (PMC) supporting DVK, as opposed to a Project Coordination Unit (PCU) of locally hired consultants reporting to the Municipality. Utility operations for their part will remain the full responsibility of DVK, with the support of limited advisory resident technical assistance provided by the PMC, and without introduction of a private public partnership with a management contract operator. DVK's empowerment and commitment to improve utility operations will be embedded in the OPIAP. Finally, the Project does not pursue any ambitious institutional reform of DVK to prevent Municipal interference with DVK's decision making, but rather seeks to promote transparency, capacity building and performance incentives for DVK managers and for DVK as a public service provider, so as to render hands-on Municipal involvement less justified.

9. Safeguard Policies (including public consultation)

DWSP 2 triggers OP 4.01 Environmental Assessment, Environmental Management Plans for the project were disclosed in country (January 14, 2011) and in WB InfoShop (February 2, 2011). The proposed repeater project is qualified as category B and would support only rehabilitation of water supply and sanitation network activities (for pumping station facilities and water

⁷ Supported by Governance Progress Facility in place for Tajikistan.

reservoirs; renovation of the chlorination facilities and of rapid sand filters; replacement of distribution network; and rehabilitation, replacement or installation of production water meters) which are not expected to generate significant environmental and social impacts.

DWSP 2 triggers the Involuntary Resettlement OP 4.12. Resettlement Policy Framework (RPF) has been developed to inform all activities involving land acquisition, restriction of access to land or services and loss of assets. The RPF has been disclosed locally (January 31, 2011) and in the InfoShop (February 2 2011). The completed pre-feasibility studies indicate that the project will largely be limited to rehabilitation of existing structures. As project design is further detailed, there is a possibility that some construction may exceed available land and may have to take place on sites not yet identified. Further, some land within residence compounds may have to be temporarily occupied for works such as excavation of trenches.

Since these detailed impacts will only be known once project implementation commences, and the possibility of land acquisition and restrictions in access cannot be ruled out at this stage, the borrower has agreed to develop a Resettlement Policy Framework (RPF). The RPF will identify the possible impacts from project activities, describe the range of potential impacts (temporary and permanent) to land use/access and structures and specify the compensation rates and procedures for the same. Where there is a gap between national and World Bank procedures, the latter will prevail for all activities financed under this project. The RPF will serve as a screening device to ascertain if there will be any impacts resulting from project activities. If any impacts are identified, the Borrower will develop relevant Resettlement Action Plans as described in the RPF which will detail the specific impact and compensation, and present it to the World Bank for approval. No civil works will commence until such plans are approved by the World Bank. The RPF will be implemented through the main Project Implementation Unit, with assistance from the Municipality.

DWSP 2 also triggers O.P. 7.50 “International Waterways” but exception to the notification requirements has been granted; and otherwise requires no policy exceptions and will comply with applicable Bank policies.

10. List of Factual Technical Documents

- Implementation Completion Report
- Project Appraisal Document
- Integrated Safeguards Data Sheet
- Resettlement Policy Framework
- Environmental Management and Monitoring Plan
- Feasibility Study, GWCC, March 2010

11. Contact point

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