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Country Sector Assessments UNDP GoAL WaSH Programme

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

Volume 2 | Tajikistan



GoAL WaSH

Achieving the MDGs

UNDP Water Governance Programme – Adaptive Water Governance

UNDP's Water Governance Programme (UNDP-WGP) works in over 150 countries, providing policy support, capacity building and advisory services in three major strategic areas:

- Water Supply and Sanitation (\$170 m, 34%)
- Integrated Water Resources Management (\$111 m, 22%)
- Regional and Global Cooperation (\$216 m, 44%)

The Water Governance Programme also integrates four 'cross cutting' areas into its broader thematic work:

- Climate Change Adaptation and Water
- Human Rights Based Approaches (HRBA)
- Mainstreaming Gender into Water
- Capacity Development and Knowledge Management

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The Global Water and Sanitation Crisis

Globally, almost 1bn people lack clean drinking water. 2.4bn people have no access to hygienic sanitation facilities; 1.2bn lack any sanitation facilities at all. Each day, an average of 5,000 children die due to preventable water and sanitation related diseases. In 2000, through the Millennium Development Goals (MDGs), the international community committed to halving the proportion of people without access to clean water and basic sanitation by 2015. Overall, the world is on track to meet the water supply MDG, but there are major gaps in many regions and countries, particularly in Sub-Saharan Africa. On current trends, the world will miss the sanitation target by a staggering 1bn people.

Meeting the MDG water and sanitation targets is more than a health and dignity issue. The evidence is compelling that achieving the water and sanitation goals would trigger a major leap forward in human development:

- Water and sanitation are essential to achieving all of the MDGs.
- Investment in water supply yields an average economic return of \$4.4 to \$1.
- Investment in sanitation yields an average economic return of \$9.1 to \$1.
- Human development is more closely linked to access to water and sanitation than any other development driver, including spending on health or education, and access to energy services.

The crisis in water and sanitation overwhelmingly affects the poor. Availability of water is certainly a concern for some countries. But the global water and sanitation crisis is mainly rooted in poverty, power and inequality, not in physical availability. It is, first and foremost, a crisis of governance and thus governance reform must be a key pillar of any strategic approach to addressing the crisis.

UNDP's Response

UNDP promotes and facilitates equitable access to water and sanitation services as a fundamental contribution to enhancing human development. UNDP works together with government, civil society, private sector and other development partners to bring about the necessary improvements in water governance to scale-up water and sanitation services for the poor.

UNDP Supports:

- Coordination of country assistance by UN and other development partners.
- Incorporation of water and sanitation into national development planning.
- Governance and policy reform for enhanced water supply and sanitation access.
- Capacity building of institutions and practitioners.
- Special attention to fragile states, where water and sanitation challenges are greatest.

The GoAL WaSH Programme

GoAL WaSH is an innovative new UNDP programme that aims to accelerate achievement of the water and sanitation MDGs through strategically targeted interventions that strengthen governance of the water and sanitation sectors at appropriate levels. Specifically, GoAL WaSH focuses on:

- Countries with low water and sanitation coverage projected not to achieve the water, sanitation or both MDGs.
- Identifying gaps, needs, constraints and opportunities in national water and sanitation plans, strategies and capacities.
- Governance reform, leadership and policy advocacy.
- Incorporation of water and sanitation into national MDG and related poverty reduction strategies.
- Close coordination with governments and key development partners active in water and sanitation at country level.

This volume is the second in a series of national assessments of governance in the water and sanitation sectors in target MDG GoAL WaSH countries. These sector assessments are in turn informing the design and implementation of a series of UNDP capacity building and technical assistance projects to strengthen water governance and advance national progress on the water supply and sanitation MDGs (see inside back cover).

Sincerely,

A handwritten signature in cursive script that reads 'Andrew Hudson'.

Andrew Hudson
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Country Sector Assessments: Volume 2
UNDP GoAL WaSH Programme

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

Tajikistan

National Sector Assessment

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MDG Outlook

Is Tajikistan on the Right Track to Reach Water and Sanitation MDGs?

Tajikistan has a rapidly growing population of over 7 m. people of which 74% (more than 5 m.) live in rural areas characterized by a fragile and vulnerable environment. Roughly a quarter of the country is an unpopulated mountain zone (Pamir range) where there are no roads. Tajikistan is one of the poorest of the Commonwealth of Independent States (CIS) countries with annual income per capita of about US\$450. In theory, the country appears to be on track to meet MDG7, namely to reduce by half the proportion of people without access to clean drinking water and safe sanitation by the year 2015. However in practice, the achievement of MDG7 is proving to be extremely difficult. Despite the fact that Tajikistan has immense reserves of fresh water, access to safe drinking water is not a reality for a large part of the rural population.



To achieve the MDG 7 target on water supply, an extra 9% of the population needs to receive access to an improved water source by 2015 (raising the coverage level from 70% today up to 79%). In urban areas 94% of the population are served (an extra 1,5% need access) and in rural areas coverage has to increase from 61% to 72.5%. In the major cities, urban settlements and rayons (regional centres) coverage is 93%, while in remote rural areas it is no higher than 49%. Of the 2.07 million people without safe access to water, nearly all (1.96 million) live in villages. 52 of the 62 towns have a piped water supply system but only 28 of these have a sewerage system.

Piped water supplies reach 83% of urban citizens compared with only 40% of rural citizens. In Soviet times the rural areas had active *Rayselkomhozs* (regional agriculture communal economies). In 1996 Presidential Order No 522 transferred their funds to local *Khukumats* (local administrative authorities) to manage all communal property, including water supply facilities. But today, the small water supply and sewage systems of former *kolhozs* (collective farms) and *sovhozs* (beyond the coverage area of main State Department on Construction, Design and Exploitation (DCDEDW)) generally remain ownerless. As a result there are many small rural households that have no central water supply or piped services, and they take their drinking water from 'unimproved' sources (springs, wells with manual pumps, irrigation ditches, channels) that are inadequate in terms of sanitation and hygiene. There is practically no formal drinking water supply management system serving these people.

This state of affairs must be understood against the background of the major problems Tajikistan has had in managing and operating its water and sanitation networks. Most water supply systems were constructed between 1960 and 1980 with an operational life of 30–50 years, meaning they are now in a terminal state. Over the past 10–15 years these systems have received no maintenance, and as such, most of the infrastructure is deteriorating. The current water supply and sewerage enterprises have shown that alone they are unable to maintain their respective facilities. The lack of timely water fee payments is only making the situation worse, providing no money to cover maintenance costs.

At management level, the administrative breakdown of the Ministry of Communal Services was followed by a collapse in the administration of essential sectors, and their control of operations. The trend towards decentralization has also had a negative effect on rectifying problems in the system. Uncoordinated institutional and economic transformation has not only created severe financial shortfalls, but has also led to a number of other difficulties. There is no standard reporting requirement (except for tax and book keeping purposes) for data necessary to assess and maintain the system. Consequently, bodies responsible for regulating water supply and sewerage systems have no systematic data with relevant technical, technological, and financial indicators on which to base their analyses.

Water supply and sewerage systems are often considered an extension of the political capacity of a local authority, rather than a sector that should be run according to technically sound rules and the norms of efficiency. Local authorities exert control by determining who should be the directors of *vodokanals* (local water service providers) and by directing the distribution of subsidies, and capital and other investments. In turn, *vodokanals* are obliged to set tariffs, commonly at an artificially low level that do not reflect actual operational costs. Salaries of administrative and technical personnel reflect the low levels affordable by towns and *rayons* (regions). This combination of patronage, inappropriate skills, politically guided investments and inadequate tariffs has led to: low levels of service; poor decision-making in the allocation of newly available resources; and a general culture of popular hostility towards the water supply and sewerage enterprises.

With some 70% of all infrastructure requiring serious rehabilitation and reconstruction, there has been a significant deterioration in drinking water quality, with a consequent health threat to the population. Serious leakages in the public water supply (50–60% on average) not only decrease the level of coverage but also risk the infiltration of polluted ground water. Worn-out pipes also cause corrosion and leakages in the sewerage system. Inadequate treatment systems, a lack of equipment and resources, and the shortage of coagulants for water disinfection further contribute to the poor drinking water quality. Moreover, only 40–50% of treatment is effective. As a consequence, waterborne infectious diseases are prevalent in the rural areas and urban settlements with the poorest water supply conditions. In rural areas, water suppliers often operate in a manner that seriously violates the regulations, and frequent power outages and other constraints mean that the water supply is constantly interrupted, or scheduled for either only mornings or evenings. Under such circumstances, rural citizens are forced to pump dirty water from flooded well chambers, ditches, and readily permeable ground, at a great risk to their health.

The situation with regard to sewerage and sanitation is even worse. Only 23% of the population is served by piped sewers, of which only 5% are in the rural areas where 74% of the population reside. (Figures 1 to 5 and Table 1 illustrate further dimensions of the situation). As such, it is no surprise that 45–50% of intestinal infections in Tajikistan are waterborne (61% in villages and 39% in cities), attributable to limited access to clean drinking water and operational sewerage systems. The amalgamation of bad drainage systems, inadequate treatment, a water supply system in poor condition, limited access to safe drinking water, and an inadequate sewerage system, are resulting in the rise of acute intestinal diseases.

Figure 1: Levels of access to piped drinking water and sanitation (2002)

Source: National Report on Sustainable Development

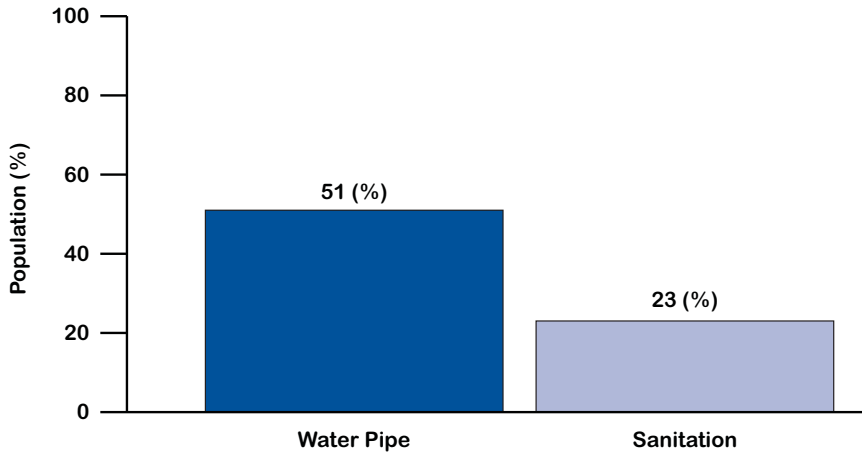


Table 1: Share of population with access to drinking water (%)

Source: Assessment reports on environmental problems in Central Asia, UNEP (2006)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2008
Tajikistan	52.0	48.5	43.8	43.8	43.7	44.3	47.1	47.3	46.9	47.4	59.0

Figure 2: Share of population with access to fresh drinking water (%) in 2002

Source: State Committee on Statistics (2003)

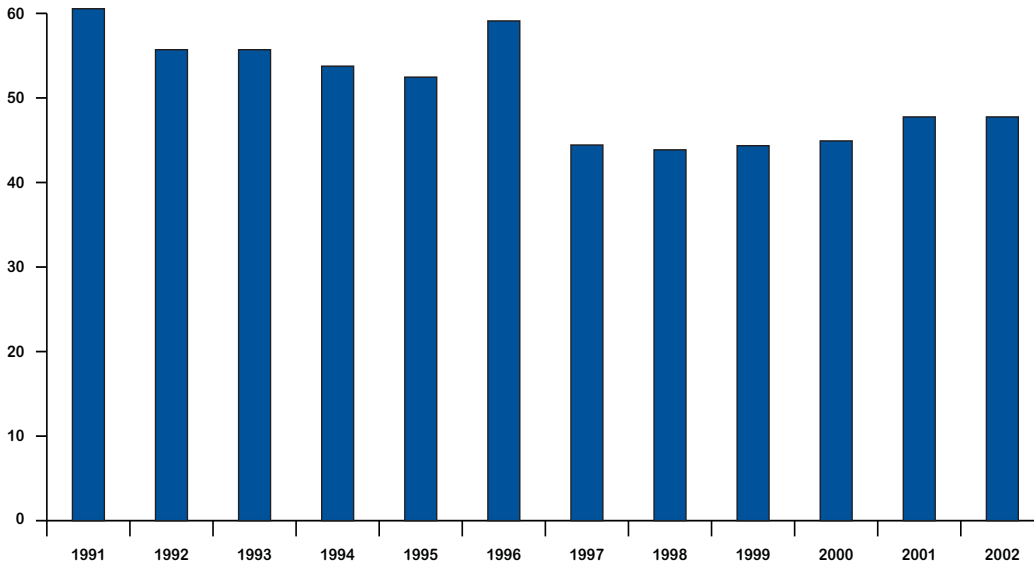


Figure 3: Water Use by Sector

Source: Vital Water Graphics, UNEP, Nairobi (2002)

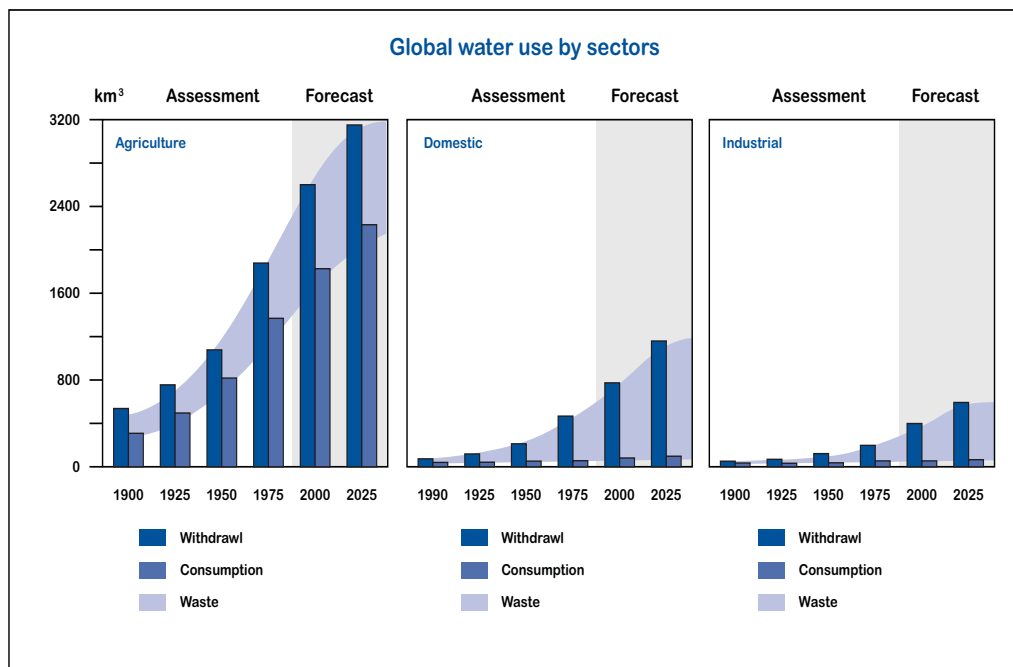


Figure 4: Provision of population with access to drinking water from the centralized sources of water supply (%)

Source: Tajikistan Ministry of Health (2004)

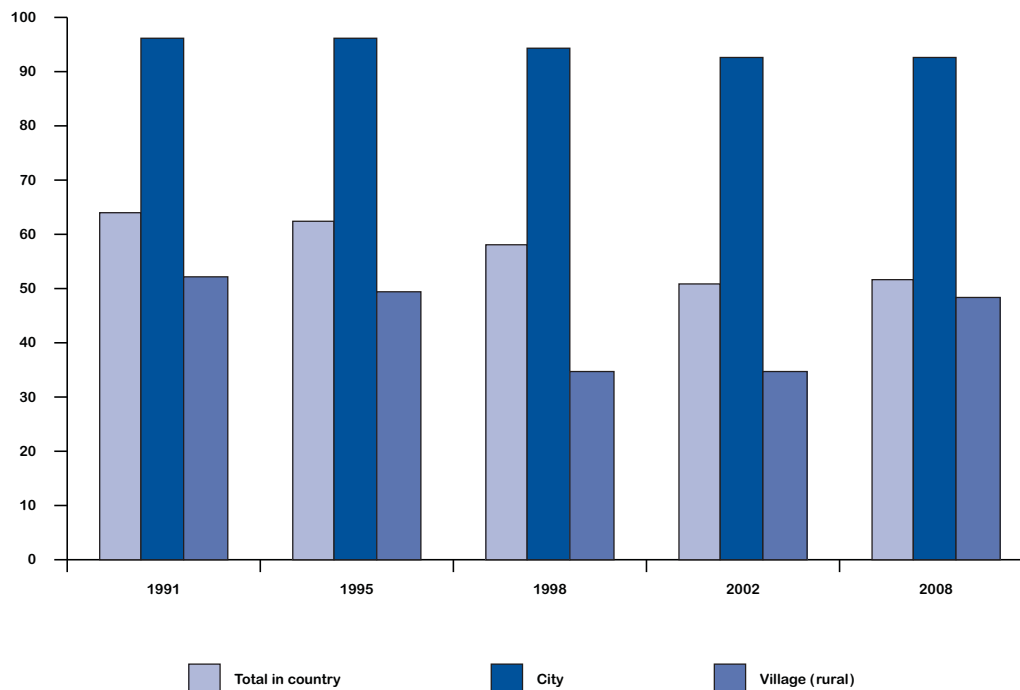
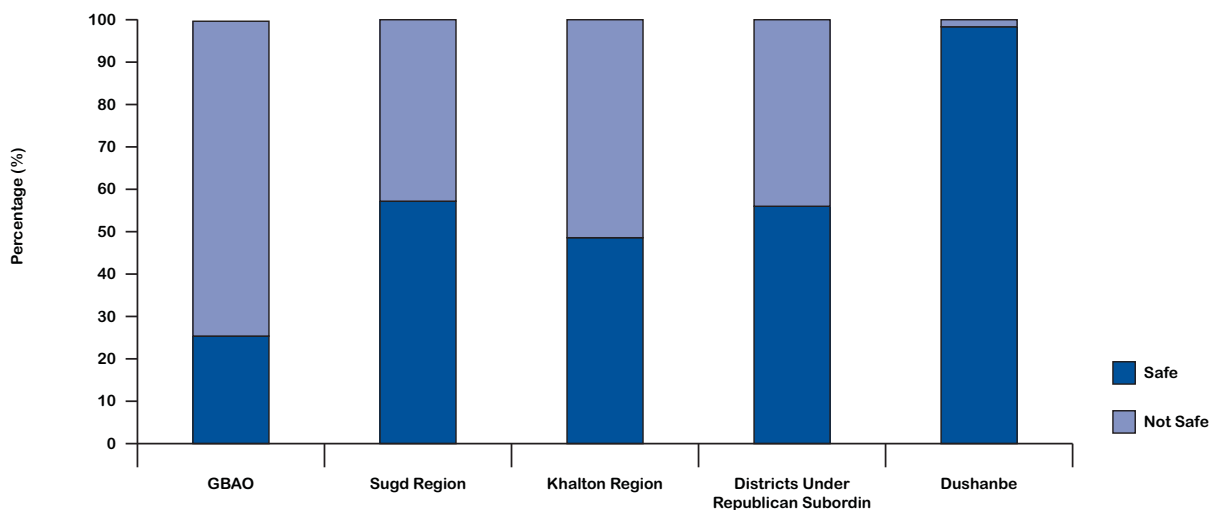


Figure 5: Access to sources of drinking water by regions of Tajikistan (% of total population)

Source: Estimated on basis of data from the Tajikistan government (2000), and UNICEF's multi-indicator cluster survey (MIKI, 2000)



‘The Right to Water’

A Human Rights Based Approach (HRBA) to development identifies rights-holders and their entitlements, and duty-bearers and their obligations and analyses the relationship between them. In the water sector in Tajikistan, duty-bearers include water suppliers and a plethora of government bodies at all administrative levels dealing with the water sector (see Figure 5 and Institutional arrangements). Rights-holders comprise *every* individual in the country whatever their gender, age, race and ethnicity; each person has a right to reliable access to clean and affordable potable water. The ‘right to water’ does not mean free water, or allow for unlimited use of water, nor entitle everyone to a household connection or to water resources in other countries. Rather, a ‘right to water’ means an affordable water supply providing sufficient water for personal and domestic uses, located within, or in close proximity to the household. In Tajikistan, extremely weak water governance and degrading infrastructure are impeding duty-bearers from fulfilling their water service delivery obligations to rights-holders in a satisfactory manner. Despite the fact that Tajikistan is one of the most water wealthy states in the world with 13,000 m³ of water available per capita¹, only 59% of the population has access to centralised water supply systems. The problem is one of governance, not availability.

- Rural Areas Deprived of Access to Safe Water and Sanitation:** The situation is worse for vulnerable and marginalised groups in rural areas. Compared with 93% access in urban areas, only 47% of the rural population have access to improved water sources. Of the estimated 2.9 m. in Tajikistan living without access to improved water sources, 2.8 m. are believed to be in rural areas. During Soviet times, most rural villages had functioning piped water supply systems operated by their collective farm operators. But with the break-up of the Soviet Union and these farms, and the lack of maintenance and damage sustained throughout the country’s long civil war (1992–1997), very few rural water supply systems are functioning today. As these systems have become increasingly abandoned, rural communities are forced to draw its water from alternative sources, including springs, wells, irrigation ditches, canals, and rainwater collection, which do not meet established public health and hygiene requirements, in turn contributing to the spread of infectious diseases². Moreover, these figures of access mask the fact that untreated water often flows

¹ UN (2005), ‘MDG Needs Assessment of Tajikistan’s Water Supply and Sanitation Sector’ p. 2

² Republic of Tajikistan (2007), ‘National Development Strategy’ p. 50

into the water pipes, and consequently as much as 40% of water consumed is not potable and 41% of the population uses water from public utilities that is of poor quality³. In many cases water supply and sanitation services could be said to be deteriorating in rural areas. Improving these services should be ‘the most important objective for the country’⁴, however at present most financing for the water sector comes from Official Development Assistance (ODA) targeted at urban areas.

Overwhelmingly, it is women and children, tasked with carrying water from source to household in rural areas whose rights are not being met. Children are arguably the most vulnerable group of the population suffering from poor water quality. They are the most frequent victims of gastric and intestinal infections caused by contaminated water. This situation is partly attributable to the fact that more than 50% of schools (1,976 of 3,694) do not have access to piped, safe drinking water⁵. The majority of medical institutions in country also lack access to proper sanitation and safe water.

- **Lack of Knowledge and Public Awareness:** A lack of civil society awareness regarding their water rights and the process through which they can claim their rights and hold duty-bearers to account poses an obstacle to improving the situation; a communication capacity gap. The vast majority of the population are unaware they have a right to affordable, safe potable water. The few that are aware are typically unaware of the redress mechanisms available to them when their access is denied. There is a grave need for consumers to be aware of when the water supplying companies are violating the law, to develop confidence to demand proper service and safe water from water suppliers and develop skills to file claims and demand compensation when appropriate⁶. However, most of the rights-holders affected are the poor and uneducated in rural areas who have little means or courage to claim their rights (often coined an authority capacity gap). Awareness is stronger among duty-bearers, such as the Ministry of Water Resources and Land Reclamation and Dushanbe Vodokanal, but institutional capacities are too weak to address the problem without the help of international organisations.
- **Weak Human Rights Support Structures:** Public grassroots organisations are the most important sector of civil society that permit citizens to voice their problems and concerns, but these are generally operating with scarce and limited resources. The Consumers Union of Tajikistan is the only organisation directly working to protect consumer rights, but their activities are at present restricted to urban areas. They argue that it is difficult to work in rural areas because there is no ownership of the water supply systems. The appointment of an Ombudsman is currently underway, which will offer an additional route via a trusted intermediary for citizens to claim their rights, and hold duty-bearers to account. In addition, Office of the High Commissioner for Human Rights (OHCHR) is in the process of recruiting a representative in country to work solely on the Human Rights Based Approach (HRBA) to environment, encompassing *inter alia* the HRBA to water.

These new appointments are a step in the right direction, for a new approach is evidently needed to tackle the many problems in the water sector. These include weak governance, degrading infrastructure, non-payment of services and the challenges arising from transition from the Soviet era when water was free, to a market economy where different rules apply. Tajikistan’s water sector is heavily aid dependent and has received over a decade of support from various international organisations and donors, including Oxfam, SDC, UNDP, UNICEF, USAID and the World Bank *inter alia* (see Annex 1 for details of their respective projects).

³ Republic of Tajikistan (2007), ‘Tajikistan Poverty Reduction Strategy paper for 2007-2009’ p. 11

⁴ UN (2005), ‘MDG Needs Assessment of Tajikistan’s Water Supply and Sanitation Sector’ p. 5

⁵ UN (2005), ‘MDG Needs Assessment of Tajikistan’s Water Supply and Sanitation Sector’ p. 2

⁶ Consumers Union of Tajikistan (2009) p. 2

- **Little Tangible Improvement on the Ground:** Previous projects have focused on physical infrastructure rehabilitation, hygiene education and awareness training, and the set up of Water User Associations. However, despite such a breadth of activities, there has been little tangible improvement on the ground in fulfilling the right to water for every individual. The situation remains dire, especially regarding rural water supply systems. The on-going lack of clear policies and confused governance surrounding the water sector, together with efforts that are too focused on physical infrastructure improvements and neglect building the community buy-in and operator capacity needed to sustain improvements are two commonly cited reasons for the lack of improvement. UNDP's HRBA is broadly and actively welcomed in Tajikistan as a new, innovative and promising approach for improving the situation of access and governance of water on the ground. Indeed, in a speech at a high-level event in New York in 2008, President Rahmon emphasised that the 'right to water' needs to be realised as vital for maintaining human dignity and as a precondition for the realisation of other human rights. It is paramount that UNDP complements existing work and cooperates with other actors in the sector to achieve the greatest impact on the ground.

Legislative Framework

Tajikistan has signed or ratified the following international human rights conventions and regional instruments relevant for the HRBA to improving water governance:

- International Covenant on Economic, Social and Cultural Rights (1966) (ratified 4th April 1999);
- Convention on the Rights of the Child (1989) (ratified 25th November 1993);
- Convention on the Elimination of all forms of discrimination against women (1979) (ratified 25th November 1993);
- Convention Against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment (1984) (ratified 10th February 1995);
- International Convention on the Elimination of all forms of Racial Discrimination (1965) (ratified 10th February 1995);
- UNECE Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (1998) (accession 17th July 2001);
- Kiev Protocol on Pollutant Release and Transfer Registers (2003) (ratified 17th July 2001).

In addition, national legislation to address water management and access issues include the Law on Water (2000), the Tajik Water Code (2002) and the country's recently signed and first ever Water User Association Law (2008). However, the Water Code does not sufficiently deal with the issues of water supply and sanitation. Moreover, the Constitution formally recognizes the 'right to water', but only indirectly in Article 18 that states, "Every person has the right to life". A draft national law on drinking water has recently been developed and is currently under the government's consideration. In the absence of it, the 1982 Soviet Standard GOST 2874-82 remains the valid drinking water legal reference.

Tajikistan has signed or ratified the following conventions and agreements related to transboundary water:

- Convention on the Law of Non-Navigational Uses of International Watercourses (1997);
- Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (1988);
- Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (1988).

But is neither a signatory nor party to:

- UNECE Convention of the Protection and Use of Transboundary Waters and International Lakes (1992);
- Convention on the Transboundary Effects of Industrial Accidents (1992);
- UNECE Protocol on Water and Health (1992);
- Council of Europe Convention for the Protection of Human Rights and Fundamental Freedoms (1970);
or
- Council of Europe Framework Convention for the Protection of National Minorities (1995).

As such, the legislation to deal with water and sanitation rights and responsibilities is sufficient to an extent, but needs improving. A specific water supply law is needed, and the country's legislation should be better harmonized with international law⁷. Drinking water standards also need to be established to ensure decent water quality and the reduction of water-related diseases. Moreover, existing and newly established legislation must be properly implemented and enforced to protect human rights; this is proving to be a major challenge at the moment.

Main Issues to be Addressed

- **Institutional disintegration and limited coordination:** The officially published and adopted strategies of the Poverty Reduction Strategy Paper (PRSP) (2007) set out specific sector priorities and an institutional framework. These are broadly appropriate, but WSS in Tajikistan continues to be characterized by a diversity of sector organizations and agencies, some of which operate in parallel with overlapping responsibilities. Coordination between stakeholders in Tajikistan's water sector is also inadequate. There is a need to improve stakeholder dialogue, by developing sector-wide approaches (SWAp), clarifying respective stakeholder responsibilities during project implementation.
- **Financial Difficulties:** Financing for Tajikistan's water sector has been significantly reduced because of the civil war (1992–1997) and the collapse of the Soviet Union. At present financial resources are beginning to increase gradually. But there is still a large shortfall in the resources needed in order to meet the MDGs and rehabilitate the old and poorly functioning infrastructure. Poverty, low tariffs and a weak tariff collection system limit the flow of revenue, whilst households make big investments in their own local supply mechanisms. Sector financing flows mainly directly to local water service suppliers (or centralized budget financing comes from the central department) thus further weakening the capacity of local executive bodies.
- **Insufficient Capacity of Local Executive Bodies:** Insufficient capacity and resources for development and efficient service provision at the local level are serious impediments in towns, rayons and villages. The private sector has only a limited involvement and many NGOs have deficient capacity themselves. The reform of urban agencies is gaining pace slowly, but strategies on the delegation of rights and responsibilities have not been implemented.
- **Outdated Sector Assessment and Weak Monitoring System:** Sector information provided by different bodies is rarely comparable, data is weak and unreliable, and databases are incomplete and inconsistent. Gaining a clear picture of the situation in the water sector at any time is virtually impossible, because the monitoring system is in decline and data is collected by various agencies independently without inter-agency coordination. Sector monitoring systems need to take into account levels of access to

⁷ National Development Strategy (2007) p. 7

and quality of water, and link services with funds. Data collection for financial flows should also be prioritized, given this information is important in decision-making but is currently unavailable at both the regional (*rayon*) and national levels.

- **Inadequate Attention to Water Resources Management and Water Quality:** Tajikistan is the 5th most water-rich country in the world, but is also extremely vulnerable to flooding, natural disasters and climate changes. The water sector needs investment in infrastructure, institutional capacity and knowledge of water resource management in the context of water and sanitation. Water quality in both rural and urban areas is well below the national GOST standard, usually because of the inadequate treatment of sewage. Water resource management is also difficult due to the multiplicity of users and types of usage, and Tajikistan's mountainous topography and frequency of earthquakes and flooding further complicate the situation, making the development of an appropriate management system and infrastructure even more urgent.
- **Disintegrating Infrastructure:** The post-Soviet economic transition in general, and the civil war (1992–1997) in particular, has imposed a heavy toll on the water supply and sewerage infrastructure. 70% of the water distribution network is in a poor (and deteriorating) condition resulting from a lack of regular maintenance, and the number of accidents in the water supply and wastewater collection networks has increased considerably as a result. Approximately 25% of water supply systems are not functioning, and half do not meet sanitary requirements, while those that are operational typically experience regular outages and do not ensure regular and sustainable access to safe drinking water. 80% of wastewater treatment plants are also out of operation because of ineffective management and physical deterioration. The 20% of wastewater treatment plants that are operational are generally sub-standard.
- **Ensuring Each Individual's Right to Water:** Public awareness about proper water use and sanitation practices and their water rights and responsibilities is low and needs to be raised. The capacity of public institutions dealing with human rights needs strengthening, specifically with regards the right to water. To ensure each individual's right to water is met, women and children in rural areas need to be prioritized in HRBA development projects aiming to increase access to safe water and sanitation. The procedural rights of transparency and participation also need to be better realised by inter alia, improving civil society's access to relevant information and better facilitating their participation in related decision making. To further ensure *every individual* has access to safe potable water and sanitation, the Protocol on Water and Health (1999) to the UNECE Convention of the Protection and Use of Transboundary Watercourses and International Lakes (1992), which entered into force in August 2005, needs to be promoted. Government should ratify the convention and protocol in the light of the benefits that would ensue.

The State Unitary Enterprise (SUE) believes water sector reform will be unsuccessful without a parallel, or even preliminary, reconstruction of the infrastructure to create opportunities for better service provision. They estimate the cost of full restoration of water utilities to be US\$380m.

Distinctive Achievements

The single major achievement has been acknowledgement at the level of national planning of the deeply flawed and inadequate physical and human infrastructure for the water sector (see next section). However the implementation of these plans has yet to be set solidly in motion. There are also a number of major projects under implementation or in the process of preparation (see below and Annex 1).

Sector Preparedness Overview

National Strategies

Following Resolution No. 96 of the Government of the Republic of Tajikistan (GoRT) of 12 February 1997, the Ministries of Health and Nature Protection developed a National Nature and Health Protection Action Plan (NNHPAP, 1999). The NNHPAP was based on the GoRT's Strategy for Health Care of the Population up to 2005, papers of the Consultative Meeting on the Development of National Action Plans for Hygiene and the Environment (Sophia, 1995), and the Review of WHO's European Experience (WHO, Copenhagen, 1995). In particular, the NNHPAP in Tajikistan set out as a priority for the period 2000–2005 the development and initiation of a National Programme for improving the supply of drinking water to the population.

The PRSP (2007–2009) considers water and sanitation to be one of the most crucial mid-term strategies. The PRSP overall aims to provide drinking water that meets government standards for 96% of the urban population and 51% of rural residents, and increase access to 'improved' sanitation by up to 50% in urban areas and up to 65% in rural areas by the end of 2009. It notes that since urban areas already have broader access to water infrastructure, policy should focus on improving water service delivery in rural areas. However, little progress has been made in this direction to date. The main priorities set out for the water sector up until 2009 are as follows:

- Construction of water intake facilities in the rural areas;
- Improved quality of water and water treatment (in compliance with the GOST);
- Establishment of sanitation protection zones and head water intake facilities;
- Assessment of existing water resources;
- Rehabilitation of existing water supply systems in urban and rural areas, including agricultural water supply systems, internal water supply systems of condominiums and guaranteed supply to consumers through current systems;
- Rehabilitation of public and individual toilets, collection and utilization of solid domestic wastes (SDW);
- Development and adoption of the Law of the Republic of Tajikistan "On Drinking Water and Water Supply"; and
- Elaboration of norms and standards for drinking water quality.

Tajikistan's National Development Strategy (NDS) (2007), the country's principal strategic document notes that water supply and sanitation are essential to economic growth and improvement of living conditions. The main priorities for the water sector in the NDS are as follows:

- Reform the existing water supply and sewerage system through the improvement of sectoral policy and the creation of new ownership entities;
- Make the sector more attractive to investors; and
- Make effective use of the sector's existing potential.

More specific to the water sector, the National Water Sector Development Strategy (2005) covers a ten-year period up until 2015. The strategy focuses on five main building blocks:

- Increasing financing—a big priority of the government is increasing investment for the rehabilitation of water supply systems, specifically in rural areas that are currently neglected.
- Improving management of municipal activities—low wages and migration have reduced the personnel capacity at both management and technical levels.

- Implementing legal and regulatory reforms—aimed at increasing the efficiency of overall water system performance.
- Achieving cost-recovery—requires modernization of technical and administrative resources for water supply control, definition of fees for water users and a system for collection from consumers that is currently a major problem.
- Rationalising water consumption—in addition to reducing losses from leakages and physical outflows, incentives for consumers to reduce their excessive consumption are needed.

GoRT has also approved the 2001 National Concept on Rational Use and Protection of Water Resources. This emphasizes the need to minimize waste and strengthen conservation of national water resources. More recently (2008) the government has approved a programme to increase the number of persons with access to potable water by 2020, which is expected to cost TJS 3.33 bn. (US\$966.52 m.). Of this, 15% will be derived from the central budget, 10% from local budgets, 5% from funds supporting related economic activities, and 70% from investments. As a result of the programme it is hoped that by the year 2020 7.7 m. people will have sustainable access to potable water.

Generally, most stakeholders have formally adopted these national strategies and policy frameworks, but many components envisaged by the national strategic papers have not been implemented. Considerable gaps remain between the rhetoric and reality. Ultimately, progress will depend on the government's ability to translate its strategic vision into specific, well-implemented actions, and for Tajikistan and its international partners to meet resource needs for development in the sector.

Aid Coordination

Tajikistan's water sector is heavily dependent on aid and cooperation from international organisations including UNDP, USAID, JAICA, UNICEF, the European Union, German Agroaction, OXFAM, DFID, SECO, ADB, WB, and EBRD. Several other agencies support the activities of these main partner organizations. The World Bank has financed three big projects: Water Supply and Sewage Project; Municipal Infrastructure Development Project; and Lake Sarez Risk Mitigation Project. Under the World Bank's support grant of US\$15 m. the Municipal Infrastructure Development Project (rehabilitation of water supply, canalization and utilization of solid urban wastes) is under implementation for 8 cities of Tajikistan (Vahdat, Garm, Dangara, Vose, Kulyab, Kurgan-Tjube, Istaravshan, and Kanibadam). The Japanese government has also provided grant funding of US\$9.5 m. for the Water Supply to the Mir Said Alii Khamadoni District Project, which is currently under implementation.

The Asian Development Bank (ADB) is focusing on the rehabilitation of the irrigation and water infrastructure in the poorest districts of the country. ADB also provides assistance for capacity building and the development of water sector strategies and policies. Together with the World Bank (WB), the ADB is preparing a number of other important water supply and sanitation projects, as envisaged in the PRSP that may contribute towards the achievement of the MDGs.

UNDP's Community Water Projects are aimed at ensuring safe potable water and sewage services and irrigation systems to the most vulnerable communities. UNDP has also coordinated contributions from various donors for potable water projects, especially in rural areas. These projects include training on hygiene issues and rational water use (see Annex 1).

A number of humanitarian organizations also provide services to rural communities, including those covered by centralized water supplies. Steps taken by most of these organizations include the construction and rehabilitation of shallow wells with hand-operated pumps, as well as unlined hand-dug wells, of which some 8,000 have been constructed to date. Unfortunately, in most places the quality of water in shallow wells is very poor, and seasonal changes in groundwater levels (caused for example by clearing open drains, the end of the rainy season, and changes in the irrigation regime) often cause wells to dry out. Following requests by environmental protection bodies, humanitarian organizations are shifting to deep well technology that should ensure a more sustainable and better quality water supply. However, the number of these projects is at present insufficient to provide a sustainable alternative to the DCDEDW systems which service the bulk of the population.

At present, the SDC is financing implementation of two small water supply and sanitation projects:

- Rural Social infrastructure rehabilitation Project Component (districts of Kistakuz and Andarak), implemented by the RRDP/UNOPS;
- Co-financing (with AMPK) for the Watershed Community Management Project implemented in Ferghana Valley by the International Water Secretariat (Canada) (Ferghana area of Uzbekistan and Osh area of Kyrgyzstan).

SECO has also agreed to develop new water supply and sanitation projects in Tajikistan. Possible options for their participation will be analyzed and the appropriate projects will be agreed focusing first on developing water supply and sanitation projects in the Tajikistan part of Ferghana valley, and as a second priority in southern Tajikistan. Possible projects might include components to protect and conserve land and water resources, and promote IWRM and rational water use. Priority regions for the further assessment are Sughd and Khatlon regions.

Key Measures to Improve Aid Coordination

- Wider coordination and cooperation with international organizations and donors will support increased access to safe drinking water and sanitation, and help achieve the MDGs and overall poverty reduction in Tajikistan.

Institutional Arrangements

In the Republic of Tajikistan, various agencies and government bodies have obligations with regard to water supply and sanitation service provision. At the state level, the parliament of Tajikistan is responsible for adopting a relevant legislative framework to ensure access to safe drinking water and sanitation, and the government has overall responsibility for ensuring national drinking water supply. The Ministry of Water Resources and Land Reclamation is responsible for national policy and planning in water sector. The MWRLR manages the irrigation networks and rural systems of water supply, but operational responsibilities for water delivery to municipal and commercial sectors were passed to local city authorities/*khukumats*. The Ministry of Finance allocates public finance to the appropriate sectoral agencies, the Ministry of Health is responsible for quality control of drinking water, and the Ministry of Agriculture is tasked with preventing contamination of water from insecticides and agricultural activities in general. An important stakeholder is the Ministry of Water Resources and Land Reclamation, responsible for the provision of potable water to the rural population; where needs are greatest. Under the Ministry is the State Department on Construction, Design and Exploitation (DCDEDW), responsible for the rural water pipe network and for irrigation and flood control of grazing land. The DCDEDW covers 24 districts of 1.2 m. people, provides potable water to farm livestock, and also operates a separate water canal belonging to SUE “KMK”.

In Soviet times the rural areas had active *Rayselkomhozs*, the main funds of which were transferred to local *Khukumats* (local administrative authorities), being communal property (Presidential Order No. 522 1996). The non-centralized water supply and sewage systems of former *kolhozs* (collective farms) and *sovhozs* (beyond the area of DCDEDW) generally remain ownerless. There are many small rural households that have no water supply or canalization services from the central system. Drinking water is taken from rivers, springs and irrigation canals. For this part of population there is practically no drinking water supply management system, and as a result some 80% of the rural population have no access to clean potable water.

The State Unitary Enterprise (SUE “KMK”) is the next biggest player in potable water supply and canalization after the DCDEDW. It reports to the GoRT and is a successor agency of the now transformed Ministry of Community Facilities and Housing Services (MCFHS). It services more than 830,000 people in 15 cities and 40 district centers, of which 403,000 use sewage services and 430,000 use systems of centralized water supply (6.1% population of RT). SUE at present signs contracts with *Vodocanals*. These cover the services provided to *Vodocanals* as well as other elements of interdependence, such as fixed charges flowing to SUE, and the responsibility of *Vodocanals* to submit reports to SUE for approval. This reveals that the interdependence has changed little since the times when *Vodocanals* were controlled by the MCFHS. In practice the work of the SUE has hardly changed since the days when it was a Ministry controlling *Vodocanals*.

Tajik *Vodocanal* is an agency that in the past operated under the MCFHS and undertook the systematic supervision of *Vodocanals* at city and district level, as well as providing management with material resources. It has now collapsed. Based on the experience of the past 10 years, and taking into account Government policy and in particular the adoption of the National Program with its commitment to ensure drinking water for the whole population by the year 2020, the functions of this body should be resuscitated.

Seven cities (Dushanbe, Khujand, Chkalovsk, Rogun, Kairakkum, Nurek, Sarband) and two districts (Varzob and Spitamen) are provided with services from the water supply and canalization agencies (*Vodocanals*), which are deemed to be structural sub-departments of local administrations (*Khukumats* of the above cities and districts). Other villages (small cities, district centers) are serviced by water supply and canalization sub-departments based on the contracts with SUE “KMK”. In 18 small cities and regional centers there is no sewage disposal. This includes Kabadiyan, Pyanj, Khamadoni, Vose, Muminabad in Khatlon region, Ganchi, Shakhristan and Maschoh in Sogd region, Rasht, and Shahrinav in RRP. In GBAO, except for the regional center, no districts have any sewage systems.

Tajikistan’s Geology Department issues confirmation on availability of underground waters and the Environment Protection Committee regulates the use and protection of waters and the issuance of permits (licenses) for special water usage. The Architecture and Construction Committee provides technical policy advice for water supply and sewage systems, including construction and design standards, contract standards and rules, and regulates project and construction activities. “TajikGosstandart” establishes drinking water standards for water quality (instead of former GOST), and the State Statistical Committee is responsible for collecting, filing and delivering data on drinking water supply and sanitation, based on an obligatory Reporting Form «1-waterpipe» and «1-sewage», approved by the State Statistical Committees’ Resolution No. 14. dated 30 August 2001.

Table 2: Main functions of water sector organizations based on the PRSP (2007-2009)

SUE Khojagii Manziliju Kommunalii: Rehabilitation, reconstruction and construction of water supply systems, sanitation (SUW)

SUE «DushanbeVodocanal»: rehabilitation, reconstruction and construction of water supply systems and assembling of water meters; replacement of internal water supply systems in the houses; rehabilitation of filtering stations and daily runoff ponds (DRP).

SUE «Khujandvodocanal»: rehabilitation, reconstruction and construction of water supply systems, plus procurement of cars and communication equipment, water-lifting pumps and training for personnel and propaganda campaigns.

«TajikSelhozVodoprovodstroy»: rehabilitation, reconstruction and construction of water supply systems

The division of responsibilities between the GoRT and local executive branch bodies is as follows:

Government of the Republic of Tajikistan:

- Overall responsibility for ensuring the national drinking water supply, and coordination of ministries, agencies and organizations holding executive functions in the water sector;
- Preparation, adoption and implementation of purposive state programs for development of potable water supply systems;
- Establishment and regulation of tariffs to pay for water supply, and implementation of one common public investment policy;
- Restructuring ownership and management, and establishing norms and limits for water-use;
- Ensuring state control and monitoring and providing public information;
- Establishing special regimes for water use in emergency areas and making orders for the issuance permits for certain water usages; and
- Implementing any other necessary measures, including decisions as to which organizations should be authorized to undertake water supply management.

Local Executive Branch Bodies:

- Regulation and control of drinking water usage and other issues envisaged by legislation to ensure drinking water supply;
- Protection and development of centralized/decentralized water distribution systems to the consumers within the competences determined by the legislation of Tajikistan;
- Deciding on the location of, and bringing into service, new water supply facilities; and
- Recording and assessing water quality and organizing events to maintain and improve water sources.

Key Measures to Improve Institutional Arrangements

- The PRSP sets out an appropriate framework for improvement. The post-Soviet institutional reform process needs to be systematically followed through.
- A body providing oversight and management support to all *Vodakanals* should be put in place.

- Establish a Joint Republican Special Group of highly qualified specialists in water supply and sanitation matters, with powers to establish Water and Sanitation Committees in rural districts and train technical personnel; develop agreements for ensuring appropriate water quality standards of sources located in frontier areas; carrying out a national inventory of drinking water supply and sanitation resources based on a common methodology for defining and identifying ‘ownerless’ assets, and establishing the funding requirement for the rehabilitation, maintenance and protection of these resources; and ensuring rational use of drinking water through assembling water meters, introducing contract system with every household to increase interest and water use culture, optimizing consuming norms, using technologies saving drinking water.
- Establishment at district level of training centers and programmes for the training of trainers; rehabilitation at state and regional level of departmental training centers, industrial and technical schools, and educational programs.
- Legalization of the location of property for water supply systems of villages along with approval of management typical structure and legalization of powers. This especially concerns areas outside the control of DCDEDW and KMK SUE.
- Increase in the priority status of all drinking water supply resources that consume electricity; use of efficient energy-saving technologies; use of reserve transmission lines and alternative energy sources.
- Ensuring water quality in accordance with the current state standards through strengthening monitoring systems, increasing local levels of responsibility, publishing normative documents, training operating personnel, increasing public awareness of water rights and responsibilities, establishing and strengthening of laboratories for Sanitary and Epidemiological Supervision, and enhancing departmental control.
- Improvement in the quality of the preparation of projects; further development of the documentation on the current norms for designs and estimates; establishment of joint recording and reporting system, including rural areas; preparation and spreading of common forms for intake and water supply services.
- Establishing database and strengthening informational system of drinking water supply under the Ministry of Melioration and Water Resources Management with participation of district *Khukumats*.
- Development of use of new progressive technologies for purifying drinking water coupled with rehabilitation, reconstruction and construction of drinking water supply systems, supported by appropriate technical and economical assessments/feasibility studies.

Sector Financing

Forward Cost Estimates

The financial cost of improving the water and sanitation sector is presented in Tables 3 and 4 (which include allowances for inflation). The planned expenses up until 2015 total US\$998,237 m. The effective implementation of these set objectives will provide sustainable access to drinking water for 653,500 people in urban areas and 445,500 people in rural areas.

Table 3: Estimated costs for the water and sanitation sector 2006-2015

Source: *Water Sector Development Strategy (2006)*

	2006 (thousand US\$)	2006–2008 (thousand US\$)	2006–2010 (thousand US\$)	2006–2015 (thousand US\$)
Water Supply:	43,605	159,084	352,376	636,309
– Urban	36,810	134,484	297,699	511,309
– Rural	6,795	24,600	54,677	125,000
Sanitation (canalization):	30,819	89,724	157,656	361,964
– Urban	27,519	87,624	155,156	324,464
– Rural	3,300	2,100	2,500	37,500
Total:	74.424	248,967	510,032	998,273

Table 4: Funding sources in the water and sanitation sector 2006-2015

Source: *Water Sector Development Strategy (2006)*

Funding Sources	2006	2006–2008	2006–2010	2006–2015
Total in US\$ thousand	74,424	248,967	510,032	998,273
– Urban households	2,786.00	8,582	11,802	35,832.00
– Rural households	80	656	2,292	7,264
– Government of the RT	4,121	10,915	16,702	31,028
– External investments	36,618	78,931	121,580	232,185
– International donors	7,700	7,700	7,700	84,700
– Funding deficit	23,119	14,2183	349,956	607,264
– Funding deficit percent	31.6%	57.1%	68.6%	60.8%

Tariffs and Fees

Funding flows for the sector (Figure 6) reveal that it is a complex system with one major missing component—user tariffs. At present, very few households keep records of their water consumption. To improve the situation, *Vodokanals*/water utilities of SUE undertook a campaign to have meters installed in every home, with the help of USAID. SUEs are currently in negotiations with the Russian Federation to obtain a license to produce meters inside the country. It is estimated that installing such water metres will reduce individual water consumption from approximately 800–1000 l/day to 250–300 l/day or even less. However, the low level of payment by government agencies (from where traditionally most funding has come) is the main reason for the financial crisis in the water sector.

As of the 19th May 2008, tariffs (in Tajik Somoni) in Dushanbe have increased in accordance with Order No. 16/1 of the Ministry of Economic Development and Trade, largely for mechanical irrigation. Tariffs in SUE “Khojagii Manziliju Kommunalii” and DCDEDW’s systems have also been increased, so much so that the increased DCDEDW system tariffs in 2008 amounted to 3.3 to 31.5 dirams per 1 m³. However, tariff increases up to 40 dirams per 1 m³ are being planned.

A structure of fees has been approved for the use of water resources within established limits to encourage responsible use and discourage wasteful practices. Payment for services such as water storage, transportation and cleaning, as well as payment for obtaining permits for special water use is also being planned. Water supply and sewage tariff rates are approved by the Ministry of Economic Development and Trade. The poor water quality in Dushanbe has occasionally lead to misunderstandings between customers and *Vodokanal* service providers, and people refuse to pay high tariffs. Moreover, it is proving a challenge to change citizen behaviour from the old Soviet system in which they did not have to pay for water, to the market economy where payment is required and different rules apply. There remains a perception among the public that water is a natural resource provided by God for which they do not have to pay.

Tariff rates for drinking water and sanitation are developed by interested organizations and agreed with the Ministry of Finance and the Ministry of Economic Development and Trade of Tajikistan. On the whole, water and sanitation is not funded in full. Payment for water in rural areas is based on measurements of the total volume of water, which is divided proportionally among population in each system, so that everybody pays the same regardless of how much they use. However, the payment rate is typically only 15% of the required amount by DCDEDW (2–10 diram/1–3 cents per m³), and government subsidies are approximately half of the amount of all money collected. Consequently, the amount of funds available for maintenance of the system is a mere 25% of estimated requirements. Moreover, due to their inability to pay, some rural communities are commonly asked to reduce their water supply to a couple of hours a day. This is despite the fact many of the operating costs are fixed, and do not depend on the duration of water delivery.

Proposed Reforms for SUE and DCDEDW

It has been proposed that radical changes need to be made in the way in which SUE and its rural counterpart, DCDEDW, are funded. The basic principles of these reforms are as follows:

- Shift to self-financing;
- Ensure essential Government support;
- Make gradual transition to new tariffs;
- Attract long-term loans to support infrastructure upgrades;
- Widespread introduction of water meters;
- Tendering and contracting for the provision of services on a competitive basis;
- Regulate tariffs on the basis of reasonable costs for work required to provide and improve services;
- Revision of the existing cross-subsidies with a view of enhancing the participation of households in the financing of services;
- Provision of social safety nets for the poor.

SUE believes that the reform will be unsuccessful without a parallel, or even preliminary, reconstruction of the infrastructure to create opportunities for better service provision. SUE estimates the cost of full restoration of water utilities to be US\$380m.

Further proposals for the reform of financing community water supplies, arising from the SDC report⁸, include the following:

- Develop a methodology for determining differential fees for drinking water according to water use and social status of consumers, and uniform rules of payment.
- Adopt real tariffs for drinking water according to market conditions, and develop a system of social protection for the poor, including drinking water supply risk insurance.
- Strengthen mechanisms for attracting investments and public funds by creating a favourable environment for investors; implement economic and financial benefits that were foreseen by the Water Code (2001), and create opportunities for transferring money according to real tariffs through the banking system.
- Strengthen drinking water payment discipline by introducing a water tracking system and concluding agreements with every entity; implementing relevant arrangements related to cash calculation; applying sanctions and restricting, limiting and stopping water delivery to debtors until they actually pay. In addition, the public should be informed about the pricing, timing of payments and penalties.
- Organise a planning system at *Jamoat* level with broad public participation for discussion and development of water supply plans.
- Create a positive attitude towards drinking water supply through advocacy with *Jamoats* and the media, carrying out training sessions and developing a legal system of responsibility.
- Conduct a regular inventory and install water columns and meters in households.
- The Government should prioritize financing the water supply programme (2008–2020) by introducing relevant procedures in legislation relating to the formulation and implementation of centralized, departmental and local budgets.

⁸ Swiss Agency for development and Cooperation (SDC) and UNDP Report “Problems and recommendations on community level for drinking water supply”, February, 2009. Project title: “Development of cooperation between the government institutions, donors and organizations to increase the responsibility, sustainability and effectiveness in rural drinking water supply”.

The Need for Further Investment

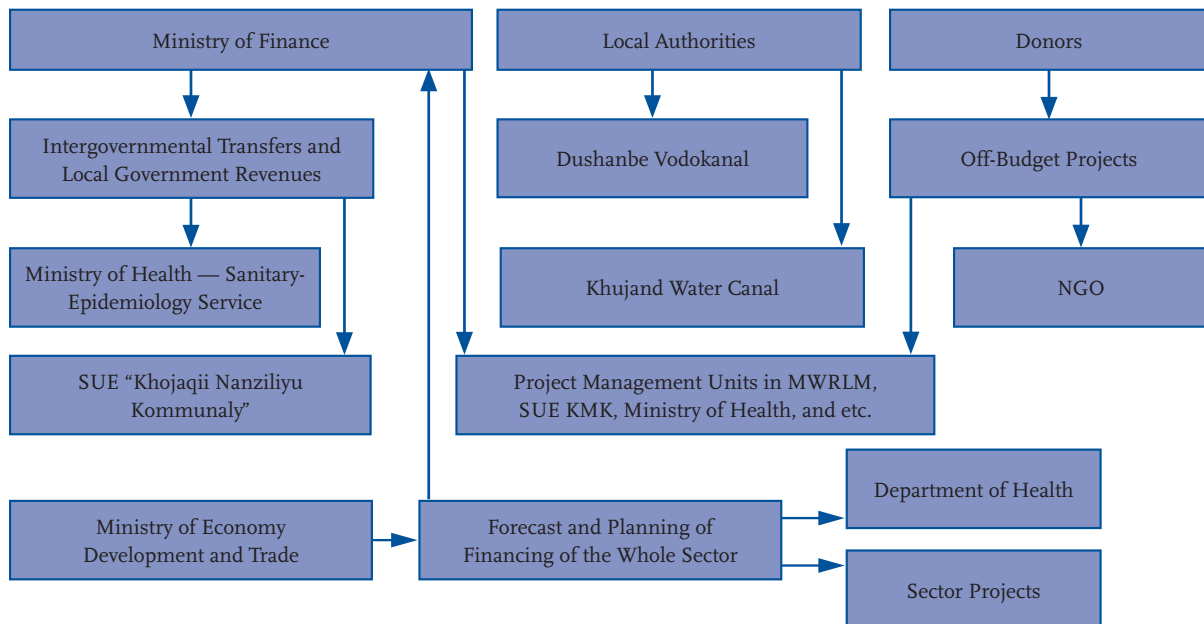
According to a study conducted by the State Statistics Committee in 2005, costs for water supply services amount to 1.5–2% of total expenses. In order to resolve the obstacles preventing more people from accessing clean drinking water, the GoRT approved a programme for 2008–2020 costing 3.3 bn. Tajik Somoni. The amount is to be financed by the following sources:

- Republican budget: 498.73 m. Tajik Somoni (15% of total amount);
- Local budgets: 332.5 m. Tajik Somoni (10%);
- Economic activity: 166.24 m. Tajik Somoni (5%);
- Investments: 2.327 bn. Tajik Somoni (70%)

An analysis of the first year of implementation of the programme (2008) reveals that only a third of the funds required for that year were raised. The smallest contribution came from local budgets (3.2%), investments 37.2%, central budget 27.4%, and the remaining 21.9% came from economic activity. For rural water supply, the Government provided only 15.8% of the prescribed amount for the year. Local *Khukumats* did not deliver anything but sent more funds to district centres.

It is therefore clear that implementation of activities to achieve the MDGs will not be possible without international investment. To date, the most important partners in Tajikistan include ADB, EBRD, EU, Government of Japan, GTZ, Mercy Corps, MERLIN, OSCE, OXFAM (UK), SECO, UNDP, UNICEF, USAID and WB. Over the past decade, international organizations have provided over US\$150 m. through investment projects for reconstruction and development of irrigation infrastructure and water and sewage systems. Projects vary in nature and size from several major projects with significant budgets to a plethora of small projects in local communities.

Figure 6: Funding flows under water-supply and sanitation



Key Measures to Improve Sector Financing

- A comprehensive sector finance study should be undertaken to better determine gaps and inefficiencies, and provide a sound basis for developing sector financial strategies at national and local levels to ensure that the MDGs are met and to meet capital shortfalls and address operational effectiveness;
- Ensuring proper and efficient use of budget resources allocated for water supply and sewerage systems needs, as well as diligent coordination and use of loans, grants and other funds;
- Tajikistan should examine fiscal transfer and financing mechanisms which encourage efficiency in use of public sector finance and improve targeting (such as smart investments, local investment funds and output based aid);
- Strengthen mechanisms for cost recovery of potable water and sanitation services to consumers (the strategy should ensure that poor people's access to water and sanitation is not hampered by unduly high tariffs);
- Improve fee collection for drinking water and sanitation.

Sector Monitoring

Tajikistan's water sector has strong project monitoring systems but weak sector-wide monitoring. There appears to be a significant gap between the picture emerging from monitoring statistics and that actually experienced on the ground. State statistical bodies and various public structures collect information on water supply and drainage systems in the Republic. These include the State Statistical Committee, the Ministry of Land Reclamation and Water Resources Management, the Committee on Environmental Protection, Ministry of Health, *Tajik-geology* and SUE housing and communal services. The State Statistical Committee (*Goskomstat*) collects information on water supply and sewerage systems using mandatory public reporting forms and sample surveys, and subsequently stores and disseminates the information. Despite the wealth of organisations directly or indirectly involved in data collection and processing, there is no single reliable source of information pertaining to the state of water supply and sewerage systems. Since 2002, data is collected once a year according to 2-TP (*vodkhoz*) Forms, but this is not currently done in an adequate manner.

In terms of assessing water quality, information on the degree of compliance of laboratory water samples with national water quality standards is often fragmentary and incomplete, due to a lack of laboratories and specialists. Such information was provided for the republican and territorial administrative levels to the state Sanitation Epidemiological Surveillance (SES), but only for the period 1996–2004. According to this data, approximately 30% of samples nationwide do not comply with national microbiological standards then in force. Indeed, virtually every report written by an international organization highlights the extremely high morbidity rates and number of water-related diseases directly resulting from very poor water quality.

Water resources monitoring in Tajikistan is conducted by six different agencies⁹:

1. State agency on Hydrometeorology of the Environmental Protection Committee under the GoRT manages the Hydrological Observation Network and conducts water quality and quantity monitoring;
2. The regional and district offices for Nature Conservation of the Committee on Environmental Protection under the GoRT are responsible for monitoring water pollution sources and adopting punitive sanctions if concentrations exceed allowable levels;

⁹ *Environmental Effectiveness Review, Tajikistan*. UNECE, 2004

3. The Sanitary Epidemiological Surveillance laboratories under the Ministry of Health monitor drinking water bacteriological quality, and take administrative measures for cases of contamination;
4. The Ministry of Land Reclamation and Water Resources Management compiles the State water cadastre on the basis of data for water intake from natural water sources, use of water for different needs, volume of reversal and consequent water supply; discharge of pollutants, loss of water during transportation, and other gazetted indicators on water quality and quantity.
5. Tajikgeology carries out the monitoring of the quality and quantity of groundwater at a depth of 15m, and also state cadastre of groundwaters;
6. Water utilities in urban and rural areas are required to conduct surveys on drinking water quality. However this is largely not done, owing to manpower and laboratory shortages.

In addition, the Department of Epidemiology of the Medical University has been monitoring the quality of water in river basins used by people as a water supply source. Various statistical sources, surveillance maps focusing on disease epidemiology and results of physicochemical, bacteriological and virological surveys are utilized. However, such information was extremely hard to obtain during the Civil War years of 1992–1997 and did not cover territories where combat operations were taking place. As such, available information is neither comprehensive nor fully accurate.

Prior to 1991, operational laboratories assessing the water and sewerage quality were attached to larger organizations that delivered water to users and/or received sewerage waste. However, rural areas lack monitoring and no regular control of water and sewerage quality in rural areas exists. Moreover, there are numerous settlements, predominantly in rural areas, where women and children are responsible for collecting water from sources situated 5km (or more) away from their place of residence. However, information on the distance between households and water sources is not collected at present.

Mandatory state reporting forms such as ‘1-water supply system’ and ‘1-sewerage system’ are used, whose current version was approved by Resolution No. 14 of the GoRT on August 30th 2001. These statistical reporting forms contain information on the water supply system (including the amount of water intake per street and capacity of constructions), on water supply services over the past year (including the volume of water that passed through the network and sewage treatment plants, the number of accidents and the extent of leakages), as well as financial information relating to water supply services. Form 1 provides information on sewerage systems, such as the network length and capacity, details of annual operations and financial data. However, the forms do not provide information about the percentage of the population with access to the centralized water supply, or about the numbers who collect water from pumps.

Key Measures to Improve Sector Monitoring

- A large-scale sectoral monitoring systems needs to be developed for assessing the accessibility and functionality of services;
- The information management system relating to water resources needs to be radically reformed and restructured according to the primary water consumers — agricultural organizations;
- Information on population numbers with access to the centralized water supply system and pertaining to the extent of water supply and sanitation networks should be included in the state reporting form. Training materials and seminars will need to be prepared on calculating the new indicators;
- Old hydrological stations should be restored and new ones created;
- Monitoring services should be provided with modern means of communication;
- Staff involved should receive thorough training on all types of water monitoring;
- Identify drainage zones prone to flooding and erosion and ensure drinking water intake stations and installations in these areas are secure.

Sector Capacity

Improving water sector capacity at municipality and region level is a key measure to enhance the development of the sector nationwide. The capacity of local district governments is especially weak, and for well-known reasons: the collapse of the old Soviet system, the civil war (1992–1997) and the outflow of professionals (“brain drain”). Weak water governance is a serious problem in Tajikistan. Many, including ministries, are aware of this fact, but without funding and technical support from international organisations and donor countries, they lack the capacity to rectify or improve the situation. Moreover, keeping record of water consumption is problematic, since most of the population has no water meters installed. The average level of drinking water consumed by the cities and district centers of Tajikistan in 2007 amounted to 198.7 l/day, with water abstraction at 82.6 l/day per person. In the rural areas, water derived from sources other than the piped network comprises approximately 50–120 l/day per person.

With regard to hygiene education, the Sanitary Epidemiological Service (SES) has a branch in every *oblast*, including environmental sanitation (water supply, sewerage and sanitation) and children and adolescent hygiene departments. Whilst various public health units were established in 1994, the Ministry of Health stated in its ruling of 2000 that such units need to be recreated. These units do not have financial resources, besides employee salaries, to be able to work efficiently. An insufficient number of laboratories doing the analysis of water samples, and a lack of specialists able to implement the relevant works are the main problems of the sector.

The SES estimates that US\$20 m. is needed to control the quality of water for household use. This would be utilized for the training of specialists, construction and rehabilitation of laboratory buildings, the provision of laboratory equipment and means of communication¹⁰. Much of the expertise in public health education now lies in the private sector in Tajikistan, as well as in international and local NGOs.

Key Measures to Improve Sector Capacity

- The water sector needs a clear strategy to improve municipal and local authority capacities. This should clearly define their roles and responsibilities.
- Training of stakeholders and staff at all levels should be undertaken to build the capacity and efficiency of the sector.
- The installation of water metres needs to be made a priority in forthcoming water projects. It should be a requirement that all projects in the sector should include a component covering the installation of drinking water meters.

Key Measures to Improve Sector Sustainability

- Policies for sustainable agriculture and urban water supply should be reviewed in terms of sectoral sustainability and management effectiveness.
- Sector wide strategies for financing and reimbursement should be developed (improved) together with clear policies and arrangements for resolving financial gaps and reimbursing operation and maintenance expenses, to help achieve system cost-recovery.
- A strategy and legislative framework for urban services should be created so as to attract businesses and achieve full cost recovery.

¹⁰ K. Nuraliev, M. Abdusamadov, R.Latipov “Problems of water supply and bank strengthening in Tajikistan”, Dushanbe, 2008

Annex I.

International Aid – Water Projects and Programmes in Tajikistan

Oxfam—Oxfam’s work in the WASH sector involves information gathering, fieldwork in Khatlon Oblast on water supply and sanitation, and advocating for sector policy reform. Oxfam is widely recognized as an international humanitarian organization that has made consistent and high-quality contributions to the sector in Tajikistan.

SDC—has a lead role supporting the water supply sector. Activities include promoting policy dialogue with relevant ministries, with the goal of leading to sector-wide reforms; encouraging networking of relevant organisations; and piloting a model to sustainably expand piped water access in rural areas that includes setting up a District Trust Fund. SDC’s efforts include an on-going project (started in 2008) in rural Sughd Oblast rehabilitating a defunct water system and building new ones.

UNDP—In the past, UNDP focused mainly on “hard” infrastructure projects for rural WSS damaged during the civil war, through which it received funding from the European Commission Human Affairs Funds. However, the funding ended in 2007, and since then UNDP has taken a more “soft” approach, focusing on capacity development. Today, a significant amount of UNDP’s work in the water sector is implemented through its Communities Programme, which focuses on three strategic areas: *Transforming Livelihoods, Redistributing Responsibilities and Overcoming Mountains*¹¹. Since its beginning in 2004, with the realization that rebuilding infrastructure alone was insufficient, the focus of projects has shifted from infrastructure to health/hygiene practices, to water disease morbidity monitoring, to capacity building of owners and most recently has involved the SDC joint funded “Water Collaboration project”. In touching all levels of decision-making, the latter has been very successful. The project was completed in September 2009, with the next phase to begin in early 2010 to include a HRBA/GoAL WaSH component. UNDP has had great success in utilising mobile theatres at the *Jamoat* level¹², operated by UNDP set up *Jamoat* Resource Centres, to penetrate important messages into rural areas¹³. UNDP’s work on Human Rights included the project “Enhancing Peace and Promoting Human Rights in Tajikistan” which ended in 2008, and included broad human rights education in secondary schools, yet not specifically related to the ‘Right to Water’. Over the last 2 years, in collaboration with OHCHR, UNDP has also been working to establish an Ombudsman in Tajikistan and create an adequate legal framework.

UNICEF—has led the Water, Sanitation and Hygiene Sector for numerous years in Tajikistan. In this role, it has periodically convened government, donors and international humanitarian organizations working in the sector and conducted evaluations of the sector. However, it has not played a particularly key role of late, and its field activities (hygiene promotion and latrine construction in schools) form only a sub-component of its education programme.

¹¹ See UNDP (2008) UNDP Tajikistan Communities Programme Annual Project Report for more information.

¹² Local governance body in villages and settlements.

¹³ See UNDP Tajikistan and Finland joint-funded video on ‘*Mobile Theatres of Khatlon*’ (2008).

USAID—has supported many water and sanitation activities as part of its humanitarian assistance in recent years. Currently, the primary project contributing to increased access to improved water supply is the Local Governance Community Participation Programme (LGPC). The Urban Institute is implementing this project that provides training and technical assistance, and funds (using small grants of US\$20,000 or less) basic water supply systems in rural areas. The project also helps improve solid waste management in both cities and towns. Urban Institute performs hydraulic modelling of distribution systems and uses modern leak detection equipment to identify leaks and focus repairs in village water systems.

World Bank—It is one of the main sponsors of efforts to improve water supply and sanitation in urban areas. Besides its on-going grant support for improvements of the Dushanbe Vodokanal, the World Bank currently support a US\$15 m. grant programme for 11 cities in the 20,000 to 50,000 population range. The project has two primary components, physical improvements (pipeline replacement, furnishing vehicles and equipment, leak detection and repair), and institutional strengthening of the *vodokanals* in each city.

Annex 2.

Progress of the programme to increase the number of persons with access to potable water (2008–2020), December 25th 2008. Percentages refer to the first two ‘Totals’ columns: Programme and Execution totals.

No.	Name	Execution	Source of financing (in Thousand Tajik Somoni; US \$1 = TJS 23)							
			Republican Budget		Local Budget		Investments		Economic Activity	
			Programme	Execution	Programme	Execution	Programme	Execution	Programme	Execution
	Totals in Tajikistan	59,928	28,446 (15.0%)	7,804 (13.0%)	18,964 (10.0%)	610 (1.0%)	132,749 (70.0%)	49,428 (82.5%)	9,482 (5.0%)	2,085 (4.8%)
1	Including: Tajikselhozvodoprovod	1,242	6,677 (15.0%)	1,053 (84.8%)	4,451 (10.0%)	0 (0.0%)	31,159 (70.0%)	145 (11.7%)	2,225 (5.0%)	43 (3.5%)
2	SUE “KMK”	16,088	5,927 (15.0%)	2,129 (13.2%)	3,951 (10.0%)	550 (3.4%)	27,660 (70.0%)	12,214 (75.9%)	1,975 (5.0%)	1,194 (7.4%)

Acronyms

Tajikistan

ADB	Asian Development Bank
CIS	Commonwealth of Independent States
DCDEDW	State Department on Construction, Design and Exploitation
DRP	Daily Runoff Ponds
EBRD	European Bank for Reconstruction and Development
EU	European Union
GoAL WaSH	Governance, Advocacy and Leadership for Water, Sanitation and Hygiene
GoRT	Government of the Republic of Tajikistan
GOST	Set of technical standards maintained by the Euro-Asian Council for Standardisation, Metrology and Certification
GTZ	The Deutsche Gesellschaft für Technische Zusammenarbeit
HRBA	Human rights based approach
JMP	Joint Monitoring Programme
khukumats	Local administrative authorities
kolhozs	Collective farms
LGPC	Local Governance Community Participation Programme
MCFHS	Ministry of Community Facilities and Housing Services
MDGs	Millennium Development Goals
MERLIN	Producer of water purification systems
MIKI	Multi-indicator cluster survey
MPPW	Ministry of Physical Planning & Works
NDS	National Development Strategy
NGOs	Non-Government Organisations
NNHPAP	National Nature and Health Protection Action Plan
NPC	National Planning Commission
ODA	Official development assistance
OHCHR	Office of the High Commissioner for Human Rights
OSCE	The Organization for Security and Co-operation in Europe
PRSP	Poverty Reduction Strategy Paper
rayons	Regions
SDC	Swiss Agency for Development and Cooperation
SDW	Solid domestic waste
SECO	State Secretariat for Economic Affairs
SES	Sanitation Epidemiological Surveillance
SUE “KMK”	State Unitary Enterprise with responsibility for WSS
SWAp	Sector-wide approach
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNICEF	United Nations Children’s Fund
vodokanals	Local water service providers
WASH	Water, Sanitation and Hygiene
WB	World Bank
WHO	World Health Organisation
WSS	Water Supply and Sanitation Sector

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