UNDP GoAL-WaSH Programme:
Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

And

UNDP Human Rights Based Approach (HRBA) to Water Governance Programme.

TAJIKISTAN SECTOR ASSESSMENT

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Ura-Tuybe
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Pik Kommunizma 7495 m
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KAZAK
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A: MDG OUTLOOK

1. Is Tajikistan on the right track to achieve MDG7 for water and sanitation?

Tajikistan has a rapidly growing population of over 7 million people of which 72% (more than 5million) live in the 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 CIS countries with an annual revenue per capita of about $450. In theory, the country appears to be on track to meet MDG7: to reduce by half the number of people without access to clean drinking water and safe sanitation by the year 2015. However in practice, the achievement of the MDG7 is proving to be extremely difficult. Despite the fact that Tajikistan has immense reserves of saline-free water, access to safe drinking water is still not a reality for the majority of the rural population.

To achieve MDG7, coverage of the centralized water supply needs to increase from 22% to 79%. In urban areas coverage needs to rise by 5% to reach 95% of the total urban population by 2015. In rural areas, centralized water supply service needs to reach a further 27% so that by 2015 year it serves 71% of the total rural population. Currently, approximately 4 million (59%) of the population have access to drinking water. In the major cities, urban settlements and *rayons* (regional centres) coverage is 93%, while in rural areas it is no higher than 49%. Of those without regular access (2.9m) nearly all (2.8m) live in villages. 52 of 62 towns have a centralized water supply system and only 28 of these have a sewerage system. 87% of urban citizens receive water from a centralized water supply system, compared with only 20% of rural citizens. 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). Today, the non-centralized water supply and sewage systems of former *kolhozs* (collective farms) and *sovhozs* (beyond the area of DCDEDW) generally remain ownerless. (For further details on institutional arrangements, see B3 p.19 below). There are many small rural households which have no water supply or canalization services from the central system. Drinking water is taken from 'unimproved' sources (springs, wells with manual pumps, irrigation ditches, channels, rainwater collection) which are inadequate in terms of sanitation and hygiene. For this part of population there is practically no drinking water supply management system.

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 they are alone unable to properly 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 it became impossible to control their 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 which 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 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. As such, 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 some 20% of the population are covered, of which only 5% are in the rural areas where three quarters of the population reside. (Figures 1 to 6 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 the 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 an ever-increasing number of acute intestinal diseases.

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

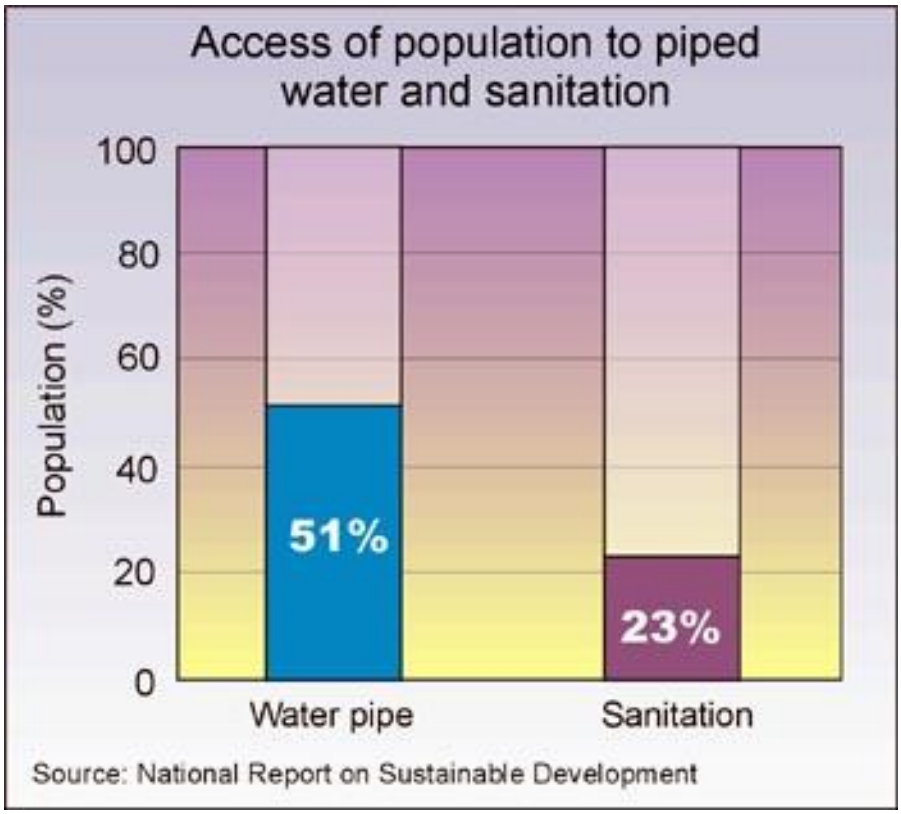

Table 1: Share of population with access to drinking water (%)
Source: Assessment reports on environmental problems in Central Asia, UNEP (2006)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2008
Tajikistan	52,0	48,5	43,8	43,3	43,7	44,3	47,1	47,3	46,9	47,4	59

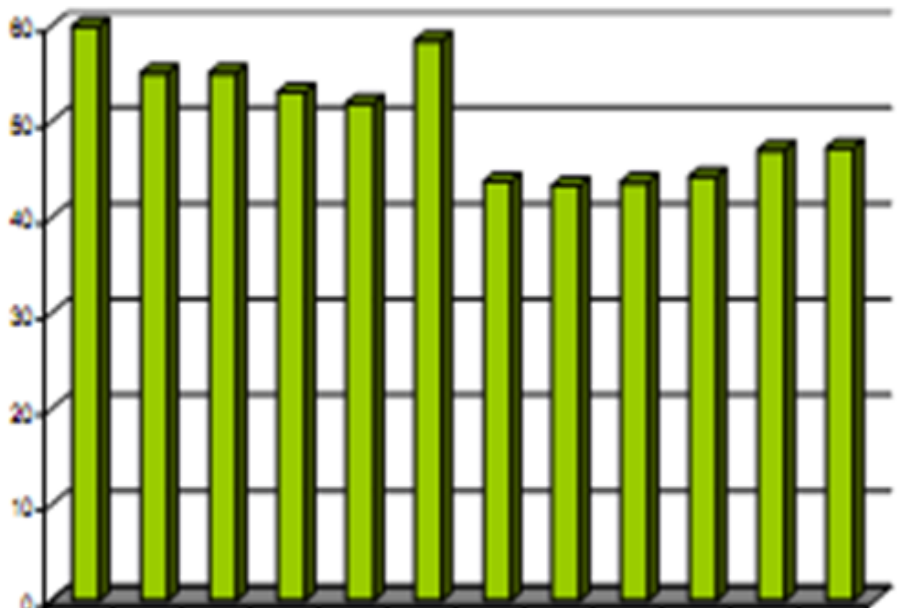

Figure 2: Share of population with access to fresh drinking water (%) in 2003
Source: State Committee on Statistics (2003)

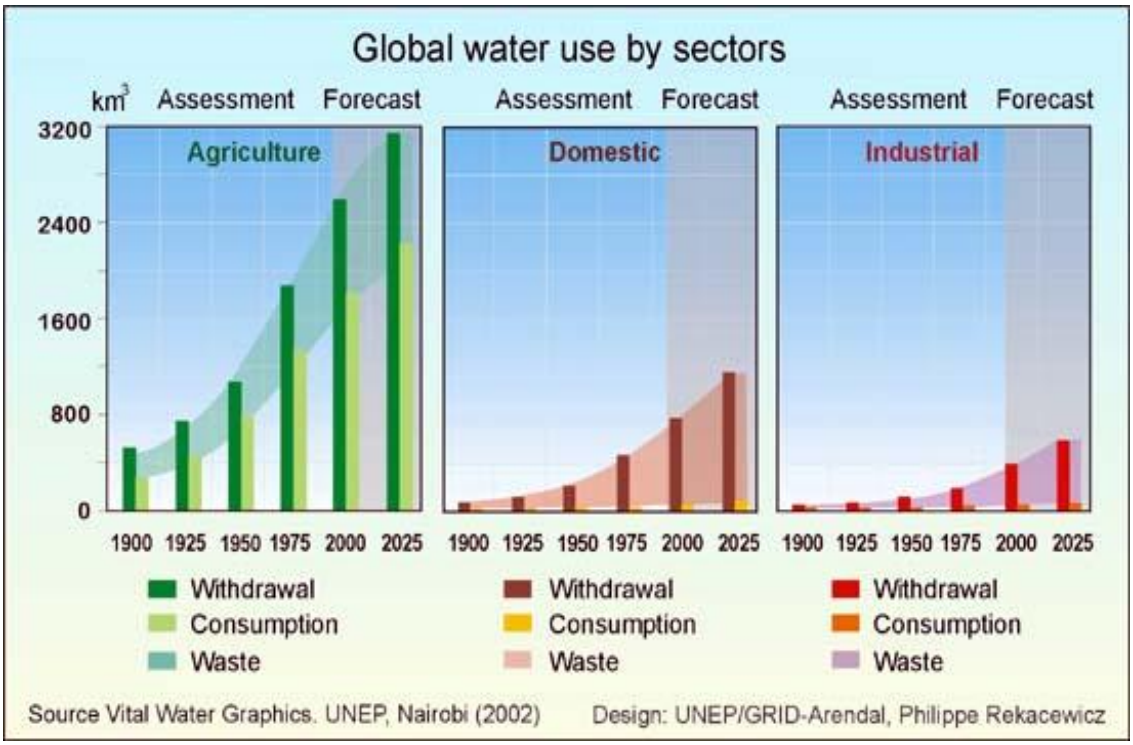

Figure 3: Water Use by Sectors. *Source: State of the Environment (2002)*

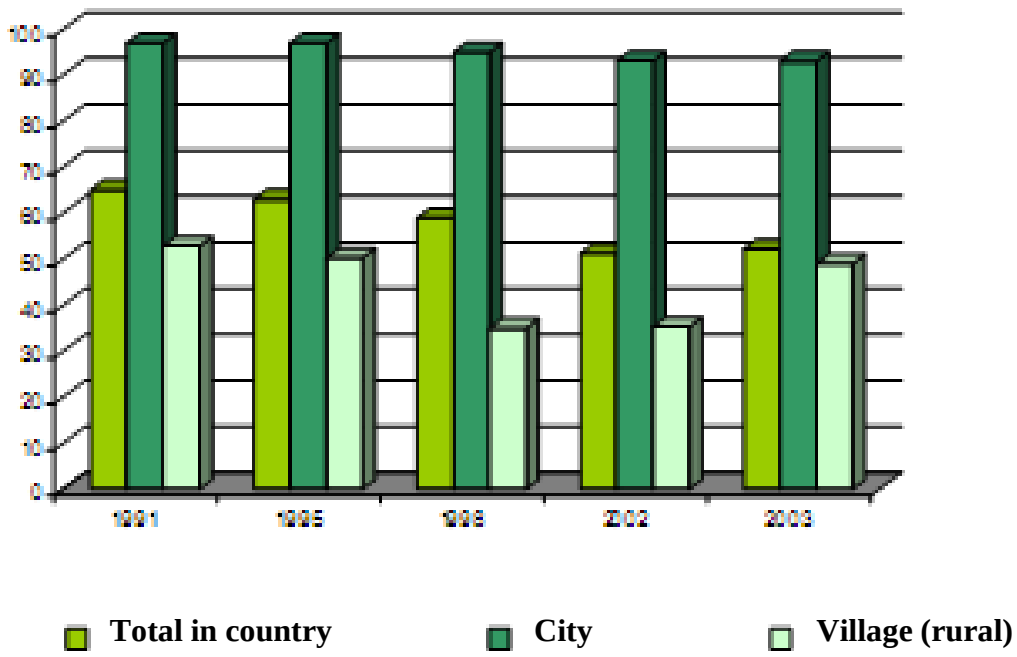

Figure 4: Provision of population by drinking water from the centralized sources of water supply (%) *Source: Ministry of Health (2004)*

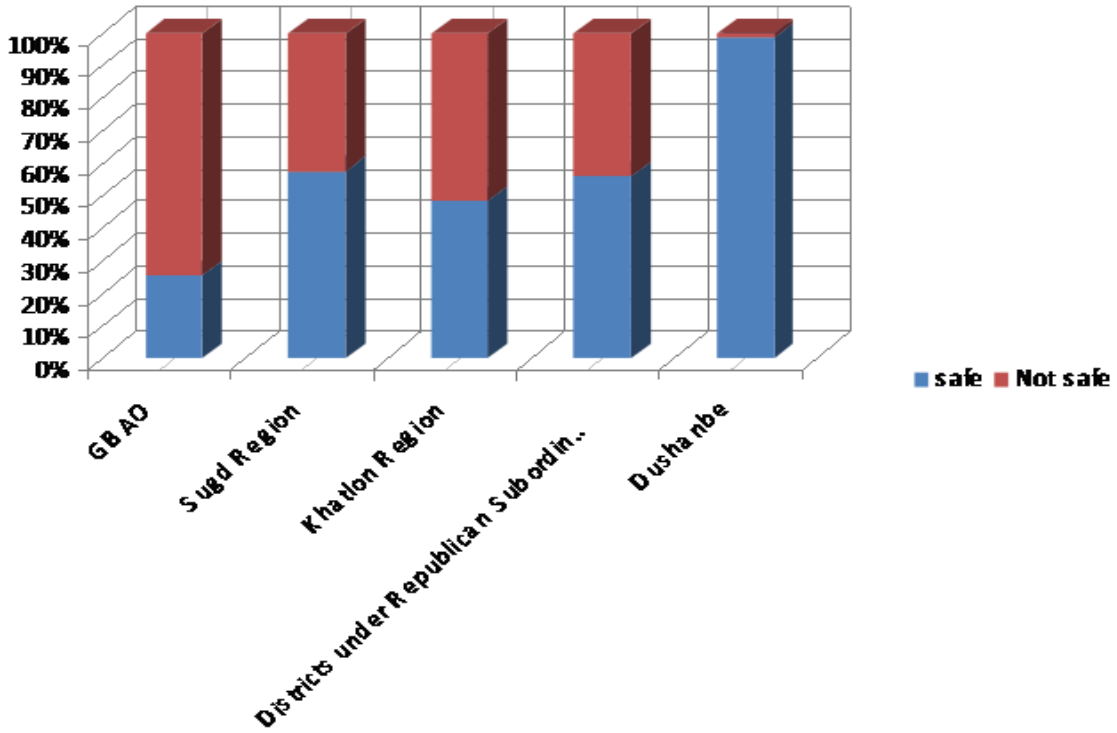

Figure 5: Access to sources of drinking water by regions of Tajikistan (% of total population) *Source: Estimated on basis of data from the Government (2000), and UNICEF's multi-indicator cluster survey (MIKI, 2000).*

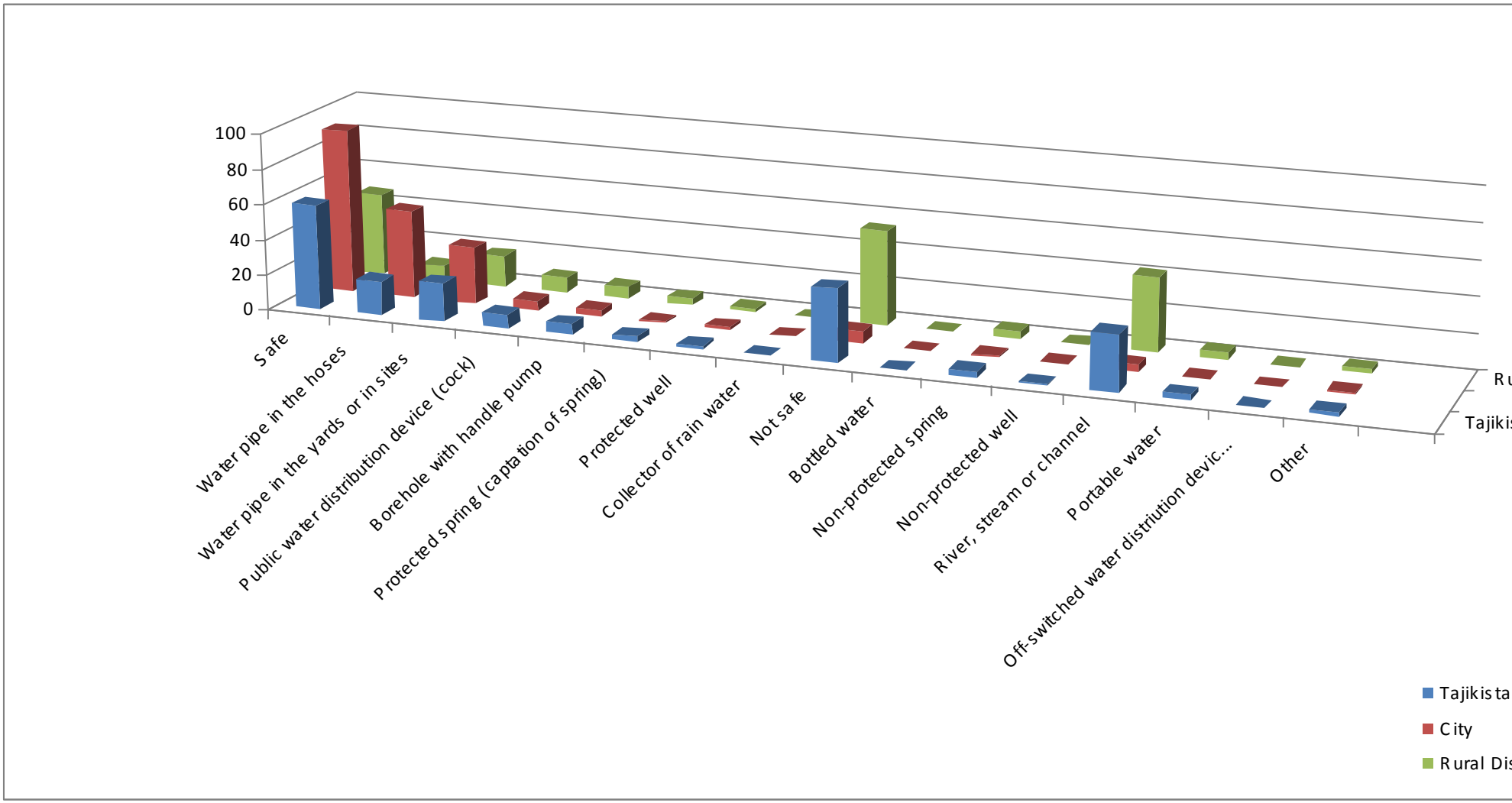

Figure 6: Access to improved sources of water (2000). *Source: UNDP Report on assessment of achievements of MDG (2002)*

2. '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 the plethora of government bodies at all administrative levels dealing with the water sector (see Figure 7 and B3). 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 Tajikistan is one of the most water wealthy states in the world with 13,000 cubic metres of water available per capita[1], only 59% of the population has access to centralised water supply systems. The problem is one of governance, not availability.

2.1. 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 million in Tajikistan living without access to improved water sources, 2.8 million 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 diseases.[2] Moreover, these figures of access mask the fact that untreated water often flows 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 quality.[3] 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 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 unarguably the most vulnerable group of the population suffering from poor water quality. They are the most

[1] UN (2005), 'MDG Needs Assessment of Tajikistan's Water Supply and Sanitation Sector', p2.
[2] Republic of Tajikistan (2007), 'National Development Strategy' p50.
[3] Republic of Tajikistan (2007), 'Tajikistan Poverty Reduction Strategy paper for 2007-2009', p11.
[4] UN (2005), 'MDG Needs Assessment of Tajikistan's Water Supply and Sanitation Sector', p5.

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 water[5]. The majority of medical institutions in country also lack access to proper sanitation and safe water.

2.2. 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 appropriate[6]. 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.

2.3. Weak Human Rights support structures

Public grassroots organisations are the most important sector of civil society which 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, OHCHR expects to have a recently recruited representative in country by the end of July 2009 to work solely on the 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 plethora of 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).

[5] UN (2005), 'MDG Needs Assessment of Tajikistan's Water Supply and Sanitation Sector', p2.
[6] Consumers Union of Tajikistan (2009), pg.2.

2.4. 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.

2.5. 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 which 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 law[7]. 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 proper implemented and enforced to protect human rights; this is proving to be a major challenge at the moment.

[7] National Development Strategy (2007), p7.

3. Main Issues to be Addressed

3.1. 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 the WSS sector 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, clarifying respective stakeholder responsibilities during project implementation.

3.2. 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.

3.3. 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 slowly being to gain pace, but strategies on the delegation of rights and responsibilities have not been implemented.

3.4. Outdated Sector Assessment and Weak Monitoring System

Sector information provided by different bodies is rarely comparable, data are 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 any coordination between them. Sector monitoring systems need to take account of actual levels of access to 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.

3.5. 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.

3.6. Degrading Infrastructure

The post-Soviet economic transition in general, and the civil war (1992-1997) in particular, have 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 which 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. 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 $380m.

3.7. 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.

4. Distinctive Achievements

The single major achievement has been that the deeply flawed and inadequate physical and human infrastructure for the water sector has at least been acknowledged at the level of national planning (see next section). However the implementation of these plans has hardly as yet been set in motion. There are also a number of major projects under implementation or in the process of preparation (see section B3 below and Annex 1).

B: SECTORAL PREPARATION REVIEW

1. National Strategies

Following Resolution No. 96 of the Government of the RT 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 RT'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:

1. Reform the existing water supply and sewerage system through the improvement of sectoral policy and the creation of new ownership entities;
2. Make the sector more attractive to investors; and
3. 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, which 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.

The Government of Tajikistan 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 billion (US$ 966.52m). 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 million people will have sustainable access to potable water.

Generally, these national strategies and policy frameworks have been formally adopted by most stakeholders, 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.

2. 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 $15m 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

$9.5m for the Water Supply to the Mir Said Alii Khamadoni District Project, which is currently under implementation.

The Asian Development Bank 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, the ADB is preparing a number of other important water supply and sanitation projects, as envisaged in the PRSP which 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 8000 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 which 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.

3. 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 1.2m 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 which 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 Government of Tajikistan 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 which 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.

SUE Khojagii Manziliju Kommunali: 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. 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

Table 2: Main Functions of Water Sector Organizations based on the PRSP (2007-2009)

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

Government 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 which 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 data base 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 cleaning and disinfection of drinking water while rehabilitation, reconstruction and construction of drinking water supply systems, along with appropriate technical and economical assessments/feasibility studies.

4. Sector Financing

4.1 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 $998,237 million. 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.

	2006 (thousand USD)	2006-2008 (thousand USD)	2006-2010 (thousand USD)	2006-2015 (thousand USD)
Water supply:	43605,0	159084.0	352376.0	636309.0
- urban	36810.0	134484.0	297699.0	511309.0
- rural	6795.0	24600.0	54677.0	125000.0
Sanitation (canalization):	30819.0	89724.0	157656.0	361964.0
- urban	27519.0	87624.0	155156.0	324464.0
- rural	3300.0	2100.0	2500.0	37500.0
Total:	74424.0	248967.0	510032.0	998273.0

Table 3: Estimated costs for the water and sanitation sector 2006-2015
Source: Water Sector Development Strategy (2006)

Funding sources	2006	2006-2008	2006-2010	2006-2015
Total in USD thousand	74424.0	248967.0	510032.0	998273.0
- urban households	2786.0	8582.0	11802.0	35832.0
- rural households	80.0	656.0	2292.0	7264.0
- Government of the RT	4121.0	10915.0	16702.0	31028.0
- External investments	36618.0	78931.0	121580.0	232185.0
- International donors	7700.0	7700.0	7700.0	84700.0
- Funding deficit	23119.0	142183.0	349956.0	607264.0
- Funding deficit percent	31.6	57.1	68.6	60.8

Table 4: Funding sources in the water and sanitation sector 2006-2015
Source: Water Sector Development Strategy (2006)

4.2 Tariffs and Fees

Funding flows for the sector (Figure 7) 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 № 16/1 of the Ministry of Economic Development and Trade, largely for mechanical irrigation. Tariffs in SUE "Khojagii Manziliju Kommunali" 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 $1m^3$. However, tariff increases up to 40 dirams per 1 m^3 are being planned.

A structure of fees for the use of water resources within established limits and for excessive and irrational use of water resources has been approved. 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 m^3), 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.

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4.3 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 $380m.

Further proposals for the reform of financing community water supplies, arising from the SDC report[8], 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.

4.4 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 Government of Tajikistan approved a programme for 2008-2020 costing 3.3bn Tajik Somoni. The amount is to be financed by the following sources:

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

- Republican budget: 498.73 million Tajik Somoni (15% of total amount);
- Local budgets: 332.5 million (10%);
- Economic activity: 166.24 million (5%);
- Investments: 2.327 billion (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 MDG targets will not be possible without international investment. To date, the most important partners in Tajikistan include ADB, EBRD, EU, Government of Japan, GTZ, Mercy Corpus, MERLIN, OSCE, OXFAM (UK), SECO, UNDP, UNICEF, USAID and the World Bank. Over the past decade, international organizations have provided over 150 million USD 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.

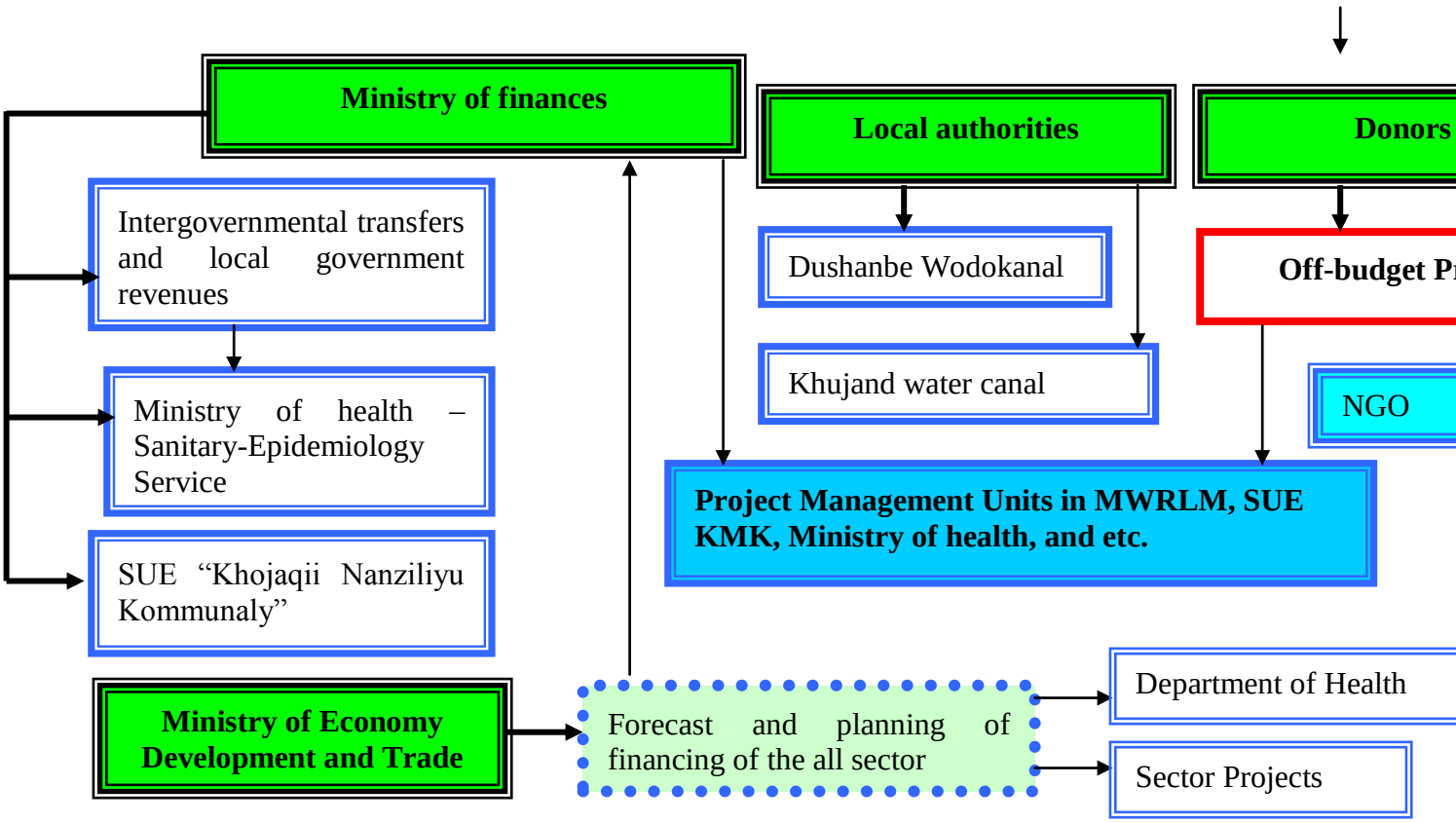

Figure 7: Funding flows under water-supply and sanitation

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.

5. 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-glavgeology* 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 agencies[9]:

1. State agency on Hydrometeorology of the Environmental Protection Committee under the Government of the Republic of Tajikistan 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 Government of the Republic of Tajikistan are responsible for monitoring water pollution sources and adopting punitive sanctions if concentrations exceed allowable levels;
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 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, for rural areas have largely been neglected of this monitoring; 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 № 14 of Government of the

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

Republic of Tajikistan of 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.

6. 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 $20m 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 communication[10]. 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 1. 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. They are widely recognized as one of the international humanitarian organizations 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 access 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 largely focused 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 dried up in 2007, and since, 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 3 strategic areas: *Transforming Livelihoods, Redistributing Responsibilities and Overcoming Mountains*[11]. Since its beginning in 2004, the focus of projects has shifted from infrastructure, to health/hygiene practices on realisation rebuilding infrastructure alone was insufficient, 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 is due for completion in September 2009, but the next phase to begin in early 2010 is currently being designed, including a HRBA/GoAL Wash component. UNDP has had great success in utilising mobile theatres at the Jamoat level[12], operated by UNDP set up Jamoat Resource Centres, to penetrate important messages into rural areas[13]. 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 have 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, they have periodically convened government, donors and international humanitarian organizations working in the sector and conducted evaluations of the sector. However, they have not played a particularly key role of late, and their field

[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).

activities (hygiene promotion and latrine construction in schools) form only a sub-component of their education programme.

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 $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 - The Bank is one of the main sponsors of efforts to improve water supply and sanitation in urban areas. Besides their on-going grant support for improvements of the Dushanbe Vodokanal, they currently support a $15 million 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.

№	Name	Total		Source of financing (in Thousand Tajik Somoni)							
				Republican budget		Local budget		Investments		Economic activity	
		Program	Execution	Program	Execution	Program	Execution	Program	Execution	Program	Execution
Total in Tajikistan		**189,642**	**599,28** (31.6%)	**28,446**	**7,804** (27.4%)	**18,964**	**610** (3.2%)	**132,749**	**49,428** (37.2%)	**9,482**	**2,085** (21.9%)
1	**Including: Tajikselhozvodoprovod**	**44,513**	**1,242** (2.8%)	**6,677**	**1,053** (15.8%)	**4,451**	**0 0**	**31,159**	**145** (0.5%)	**2,225**	**43** (1.9%)
2	**SUE "ХМК"**	**39,514**	**16,088** (40.7%)	**5,927**	**2,129** (35.9%)	**3,951**	**550** (13.9%)	**27,660**	**12,214** (44.1%)	**1,975**	**1,194** (60.4%)

Annex 3. Acronyms

ADB	Asian Development Bank
DCDEDW	Department of Construction, Design and Service of Rural Water Supply Systems and Stockwater Development
DFID	Department for International Development (UK)
EBRD	European Bank for Reconstruction and Development
ES	Engineering Supervision
GoAL Wash	Governance, Advocacy and Leadership in Water, Sanitation and Hygiene
GOST	1982 Soviet Standard for drinking water
GTZ	German Development Cooperation
HRBA	Human Rights Based Approach
IWRM	Integrated Water Resources Management
JAICA	Japanese Agency for International Cooperative Assistance
MDG	Millennium Development Goals
NDS	National Development Strategy
NGO	Non-Governmental Organization
NNHPAP	National Nature and Health Protection Action Plan
ODA	Overseas Development Assistance
OHCHR	Office of the High Commissioner for Human Rights
OSCE	The Organisation for Security and Cooperation in Europe
PRSP	Poverty Reduction Strategy Paper
RT	Republic of Tajikistan
SDC	Swiss Agency for Development and Cooperation
SECO	State Secretariat for Economic Affairs
SES	Sanitary Epidemiological Surveillance
SUE	State Unitarian Enterprise Communal Service
TJS	Tajik Somoni
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USD	US Dollar ($)
WASH	Water, Sanitation and Hygiene
WB	World Bank
WHO	World Health Organization
WSS	Water Supply and Sanitation

Annex 4. List of Persons Met

Committee on Environmental Protection under the Government of RT	Timur Nazarov, Director of the Republican Scientific Production Center; Ibragim Saidov, Head of the Scientific Research Center on Water Conservation; and Munim Abdusamadov, Head of Water Conservation and Water Use Control Department
Consumers Union of Tajikistan	Mr. Bakhadar Khabibov, Executive Director.
Dushanbe Vodokanal	Mr. Mirzo Khushvakhtov, Director of Project Management Unit; Mr. Saidov Hamroqulovich, and Mr. Mirzoev Akbarovich, Chief Engineer.
Executive Office of the President of RT	Mr. Salimov Yusuf Safarovich, Head of Department of Constitutional Rights and Warrantees; and Ms. Sabohat Muqumova, Senior Adviser to the President.
Ministry of Finance	Alamkhon Naimi, Head of State Budget Department;
Ministry of Land Reclamation and Water Resources	Mr. Rustam Latipov, Head of Department of Water Resources, Science and Engineering
NGO 'Law and Society'	Ms. Muattar Haydarova, Director.
OHCHR	Mr. Boimurod Bobodjanov, OHCHR Nation Programme Officer.
SDC	Mr. Ruslan Sadykov, National Programme Officer
SES	Kholmurod Alijonov, Head of communal Services; Mukhamadkul Karimov, Head of the Occupational Hygiene Department; Pirnazar Shodmonov, Head SES.
UNDP	Kibriyo Jumaev, Governance and Human Rights Project Manager; Sukhrob Khoshmukhamedov, Environmental Programme Officer/Focal Point; Gulbahor Nematova, Communities Programme Project Manager; Rastislav Vrbensky, Country Director.
UNICEF	Ms. Nargiza Artushevskaya, Project Officer
USAID	Ms. Malika Makhambaeva, Project Manager

Annex 5. References

Consumers Union of Tajikistan (2009), 'Challenges for Sustainable Water Consumption in Tajikistan'.

Ministry of Irrigation and Water Management, Executive Committee of IFAS and UNDP (2006), 'Water Sector Development Strategy for Tajikistan'.

Republic of Tajikistan (2007), 'Tajikistan Poverty Reduction Strategy Paper 2007-2009' http://www.undp.tj/files/reports/prsp2_firstdraft.pdf

Republic of Tajikistan (2007), 'National Development Strategy of the Republic of Tajikistan for the period to 2015', http://www.undp.tj/files/reports/nds_eng.pdf

Republic of Tajikistan and UN (2003), 'Progress Towards the MDGs in Tajikistan'.

Republic of Tajikistan (2001) 'Law of the Republic of Tajikistan Water Code 2001'.

Republic of Tajikistan (2001), 'Concept on Rational Use of Water Resources and Water Conservation of the Republic of Tajikistan'.

SDC and UNDP (2009), 'Challenges and Recommendations at the Inter-Ministry Level of the Republic of Tajikistan in Rural Drinking Water Supply'.

SDC and UNDP (2009), 'Issues and Recommendations for Community Level Rural Water Supply in Tajikistan'.

UN (2005), 'MDG Needs Assessment of Tajikistan's Water Supply and Sanitation Sector', http://www.untj.org/mdg/files/Water%20Supply%20Report%20eng.pdf

UNDP (2009) 'Outcomes Evaluation Report: UNDP Communities Programme in Tajikistan'

UNDP Tajikistan (2009) 'Challenges and Recommendations at the Inter-Ministry Level of the Republic of Tajikistan in Rural Drinking Water Supply'.

UNDP Tajikistan (2008) 'UNDP Tajikistan Communities Programme Annual Project Report'.

UNDP Tajikistan and Finland (2008) 'Mobile Theatres of Khatlon Video'.

UNHCR (2008), 'The Statistical Yearbook for Tajikistan'.

USAID (2009) 'Assessment of Programme Opportunities for USAID in the Tajikistan Water Supply and Sanitation Sector'

UNDP, Republic of Tajikistan and others (2003) ‘Tapping the Potential: Improving water management in Tajikistan. National Human Development Report 2003’.