



# Country Sector Assessments **UNDP GoAL WaSH Programme**

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

## **Volume 2**

Djibouti  
El Salvador  
Mongolia  
Nepal  
Tajikistan



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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**Editors:** Piers Cross, Jane Fulton, Andrew Hudson and Alastair Morrison

**Photography:** Djibouti — Global Water Partnership; El Salvador — Walter Sotomayer;

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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,



Andrew Hudson  
Cluster Leader  
Water Governance Programme  
Environment and Energy Group  
Bureau for Development Policy  
[www.undp.org/water](http://www.undp.org/water)



Country Sector Assessments: Volume 2

## UNDP GoAL WaSH Programme

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

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# Djibouti

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# MDG Outlook

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

Djibouti is a small country with a population of 0.85 m., 87% urban<sup>1</sup> and 13% rural, with a population growth rate of 1.7% (2.7% urban; 1.5% rural). The Joint Monitoring Programme (JMP) figures regarding access to safe water are 98% urban; 53% rural; and 92% overall. Figures from the Government of Djibouti's Ministère de l'Agriculture, de l'Élevage et de la Mer, Chargé des Ressources Hydrauliques (MAEM-RH) use more rigorous definitions of service access that give a significantly different picture, suggesting that urban coverage is only 50%. JMP figures indicate overall 62% sanitation coverage (19% rural; 69% urban), whereas the ministry reports a 45% coverage.



<sup>1</sup> The urban population lives mainly in the capital city Djibouti-Ville, totaling 67% of the total national population, with the remaining urban population living in secondary towns.



According to JMP figures, Djibouti is close to reaching the MDGs for the urban water sector. It is estimated that by 2015, of Djibouti's estimated 686,300 urban population, only 60,000 will lack adequate access to water and 96,000 to adequate sanitation. Nevertheless, only 50% of the population of Djibouti's urban population is connected to the public water supply. The other 50% draws water from connected neighbors or from public standpipes.

In rural areas, reported coverage rates for water are decreasing, despite the population negative growth rate, due to the reduction of available of water resources. Regarding rural sanitation, an additional 60,000 persons are expected to get access to safe sanitation by 2015.

The main challenge for Djibouti lies with increasingly scarce water resources combined with urban population growth. The country's situation is particularly worrying as sustainable water resources are estimated at only 50 cubic metres per capita per year, compared with an average of 1,000 cubic metres per capita per year for the water-stressed Middle East and North Africa region. Almost all of Djibouti's water supply is sourced from underground wells, and most of these wells are old and close to exhaustion.

In summary, these figures indicate that Djibouti will reach the MDGs for water and sanitation in urban areas, but will be unlikely to meet the target for rural water and sanitation. A specific MDG action plan for rural water and sanitation needs to be developed. Djibouti National Water and Sanitation Office's (ONEAD) institutional arrangements and performance need to be strengthened, and dedicated sector investment increased. To achieve this, the Government of Djibouti could: (a) improve planning and monitoring of activities; (b) anticipate procurement procedures to secure new water resources; (c) improve ONEAD's financial and technical performance; and (d) mobilize resources to improve rural sanitation.

## Main Issues to be Addressed

- **Institutional leadership and capacity:** While the role of institutional actors in the urban sector has been clarified with the extension of ONEAD's mandate to urban sanitation (the responsibility of ONEAD), the role of different institutions in the rural water and sanitation sector must be defined more clearly.
- **MDG road map:** Currently, there is no national action plan to reach the MDGs. The government has created the National Initiative for Social Development (INDS), and some elements have been developed by ONEAD for urban water supply in terms of strategy and investment planning to increase the production capacity through desalination. But Djibouti still needs a coherent national strategy for rural and urban sanitation, and to develop an appropriate strategy for rural water supply.
- **Budget constraints:** Given the scale of needs in the sector, budget allocations for WSS need to be increased. The lack of investment is affecting mainly the urban poor and rural segments of the population who rely on alternative, and sometimes unsafe, water supply solutions.
- **Limited coordination among stakeholders:** Consultation within the Country Programme (CP) has been initiated, but remains limited to project collaboration or co-financing. Progress needs to be made to enhance government co-ordination leadership and develop a proper coordination platform.
- **Monitoring systems remain weak and poorly implemented:** Regular data collection on coverage and service monitoring is lacking.
- **Constraints on ONEAD:** Restricted autonomy of ONEAD, poor cost recovery combined with high production costs — largely due to high electricity costs, and operational inefficiencies — put ONEAD in a critical financial situation, close to bankruptcy for many years.

# Sector Preparedness Overview

## National Strategies

The government of Djibouti is aware of the critical situation and has placed water and sanitation sector policy development and implementation among its priorities. This has translated into important institutional reforms such as the Water Code publication (1996), the establishment of a unified Water Directorate (1999), and a ministries coordination body. The National Water Master Plan (SNDE), prepared and approved in 2000, is currently being updated. With the adoption in 2006 of a national integrated water and sanitation policy, centered on the creation of a sole operator—ONEAD—the government of Djibouti addressed the main constraints to the sector development. In order to solidify progress and achieve reform, economical growth and poverty reduction, the government of Djibouti has developed a US\$341m. programme for economic and social development for the period 2006–2010. This programme will translate the priorities identified in the Le Cadre Stratégique de Lutte contre la Pauvreté (CSLP—equivalent to PRSP) into sector projects. Water supply and sanitation are the first priority with a funding allocation of US\$151.4m.

In 2007 the Government of Djibouti (in the form of ONEAD) began to implement the Water Supply Master Plan to address weaknesses in the city's water supply, and to boost its supply capacity through to 2030. As part of the Master Plan, studies were conducted of all aspects of the city water supply, including a comprehensive assessment of the production, storage and distribution facilities, as well as an inventory of water sources and the building of new facilities to ensure that supply will meet projected demands.

In the case of the rural water supply, Government of Djibouti water policy has given priority to thirst reduction. Both SNDE and the rural water action plan, prepared by the Ministry of Agriculture, Livestock Production, and Marine Affairs-Water Resources (MAEM-RH) and the technical water secretariat, give a high priority to proper management and development of water facilities, to satisfy—in order of priority—(i) domestic needs—especially drinking water, (ii) livestock needs, and (iii) other agricultural needs (such as irrigation). In addition, the Master Plan followed up on previously implemented institutional reforms.

### Key Measures Identified to Improve National Strategies:

- Pursue and intensify capacity transfer to local governments.
- Anchor sector financing in the national budget process.

## Aid Coordination

The government has made significant progress in developing the elements and tools needed to increase donor coordination. A number of donors have carried out urban poverty reduction projects in Djibouti over the past few years, as follows:

- The AfDB has been very active on the microfinance front and has acquired much experience with microcredit implementation. The latest projects funded by the AfDB support women's empowerment, flood rehabilitation, health and education and fisheries (national fisheries development studies and integrated fisheries loans), and the development of sanitation infrastructure.
- The IsDB has been active in Djibouti in infrastructure and capacity building and implementing projects including construction of schools and medical centers, and vocational training of young adults.

- The Agence Française de Développement implemented the ‘PK12 Project’ between 2002 and 2007. The PK12 neighborhood was chosen as it had some of the worst health, infrastructure and education indicators.
- UNDP is supporting projects in governance and human development, crisis prevention, and poverty reduction, energy and environment.
- UNICEF supports the water directorate of MAEM-RH for rural water supply management through solar pumping systems’ installation, establishing participative management and technical capacity building.

All five donors share information and reporting, knowledge and lessons learned, and focus their collaboration to enhance the operating modality of the implementing agency. In addition, the five donors plan to establish some coordination mechanisms and channels to enable regular information sharing.

### Key Measures to Improve Aid Co-ordination:

- Establish a proper coordination mechanism with a core group of CPs.
- Strengthen the government’s capacity to lead the coordination group.

## Institutional Arrangements

The main institutional actors are:

- MAEM-RH, in charge of policy development and investment planning for water supply throughout Djibouti. The ministry’s departments are responsible for rural water supply, village pumping systems and maintenance, and well construction.
- ONEAD is responsible for water supply management and coordination in Djibouti City and other towns. It is also responsible for sewerage and wastewater treatment as well as stormwater drainage.
- The Ministry of Health has mandated the Direction de l’Epidémiologie et de l’Information Sanitaire (DEIS) to implement the Ministry’s hygiene and sanitation policy.
- The Ministry of Finance, Economy and Planning is in charge of privatization, and is responsible for investments and the allocation of financial resources.
- Various service suppliers are active in the water supply and sanitation sector as well as civil society organizations, and non-government organizations.

### Key Measures to Improve Institutional Arrangements:

- Strengthen the capacities of ONEAD so it can exercise its mandate.
- Define a clear action plan and responsibilities for hygiene and sanitation promotion.

## Sector Financing

Current projections for sector finance suggest that substantial increases are necessary to sustain present coverage levels. This is due to a number of governance problems such as insufficient decentralization combined with unsatisfactory budgeting processes and financial management difficulties. Despite efforts made in recent years, there is still no effective decentralization because of the lack of political and institutional mechanisms and financial resources at the district level. Some progress has been made with the law on decentralization that defines regions as local government units. But the sector still lacks appropriate budget allocations to cover investment needs and to fund recurrent expenses.

In the urban sector, the financial situation of the public water and sanitation utility, ONEAD, is problematic. This situation results from a lack of financial and management autonomy; technical and commercial weaknesses; huge governmental agencies' deficits and over-staffing. The recent merger of water supply and sanitation utilities has resulted in a greatly increased number of responsibilities for ONEAD. Unfortunately the company does not have corresponding human and financial resources. A strategic roadmap for the restructuring of ONEAD is necessary if it is to improve its financial performance and to take on its additional duties in providing sanitation services.

At the national level, a move towards a programmatic approach with the development of a Medium-Term Expenditure Framework (MTEF) for the sector, detailing operating and investment expenditure needs, would gain donor and finance ministry visibility and help ensure that sufficient resources are allocated to the sector.

In terms of global development assistance, Djibouti receives approximately US \$100 m. annually from donors. Currently, the WSS sector's main development partners are:

- The Arab Fund for Economic and Social Development (AFESD), helping with water supply rehabilitation works;
- China, financing a new desalination plant for Djibouti City;
- And the European Union, providing institutional support and sanitation facilities, together with the AfDB.

### Key Measures to Improve Sector Financing:

- Develop a programmatic approach e.g., a MTEF.
- Draw up a strategic roadmap for ONEAD.
- Increase project management capacity and the efficiency of procurement procedures.
- Recognition of the importance of operational and maintenance cost recovery.

## Sector Monitoring and Evaluation

As in many other countries, the monitoring framework for Djibouti is still being developed. Currently, sector information is compiled from central statistics figures. Access coverage is irregularly measured through household surveys and poverty assessments, but the results of these surveys are not cross-checked with the calculated coverage rate based on the number of facilities built.

As part of the PDSTP, in early 2007 the World Bank, the Direction de la Statistique et des Enquêtes Démographiques (DISED), and the Djibouti Public Service Project Implementation Agency (ADETIP), produced an atlas of Djibouti City that mapped out comprehensively poverty indicators at the neighborhood level. A second atlas of five secondary urban centers was formulated around the same set of indicators, produced in late 2007. These atlases clearly identify the poorest urban areas and the priority neighborhoods for interventions, and constitute the spatial and statistical basis for current urban poverty reduction programmes.

### Key Measures to Improve Sector Monitoring and Evaluation:

- A structured and comprehensive monitoring system, linked to the attainment of the MDGs, should be instituted.
- Technical and financial monitoring of rural water supply schemes needs to be instigated.
- MAEM-RH and ONEAD need to incorporate progress monitoring as integral components of their work.

## Sector Capacity

Overall, Djibouti's water sector requires a significant increase in capacity to meet the MDG targets. At a national level, capacity building needs to focus on human resources, systems and facilities geared towards monitoring, management, and the setting of standards, policies and strategies.

While ONEAD has qualified, motivated staff, the company's overall strategy is unclear, and lacks innovative approaches to extend services through the peri-urban areas of Djibouti City. Developing sanitation services is a new challenge for the company.

From a strategic perspective, a WSS policy and legal framework is in place. However, as well as gaining a greater knowledge of WSS service provision gaps and deficiencies, there needs to be clarification of the roles and responsibilities of WSS provision at national, local government, and community levels. Budget mechanisms to strengthen and streamline fund disbursements to local levels are needed, as well as rational staffing and facility planning at local, regional, and national levels. A coherent plan on sanitation would also be helpful.

### Key Measures to Improve Sector Capacity:

- Strengthen technical, planning and implementation functions of MAEM-RH.
- Strengthen commercial and operational performances of ONEAD.

## Sector Sustainability Overview

This section draws on 2005 data from the Central Statistics Office (CSO) and provides a quantitative and qualitative assessment of the overall sector and sub-sector's sustainability by assessing 'success factors' related to the institutional and financial sustainability of the sector score range from 0% (poor) to 100% (excellent).

## Sector Sustainability Scores

Overall sector sustainability is very weak (overall score 30%). Financial sustainability is especially weak for urban water (overall at 40% and at 20% for urban) with unsustainable tariffs and weak cost recovery. Institutional sustainability is more promising at 60%, thanks to ongoing reforms and sector restructuring. Sanitation services are notably unsustainable (scores of rural 10% and urban 20%), with no specific sanitation action plan in place.

### Key Measures to Improve Sector Sustainability:

- A strategy for sector fiscal flows, leverage and cost recovery needs to be developed, along with clear policies and mechanisms to address financing gaps. Cost recovery must be achieved to pay for operations and maintenance work, and to allow for depreciation and infrastructure renewals.
- Sanitation and sewerage strategies and action plans need to be developed in urban and rural areas.
- The policy and legal framework of ONEAD needs to be reviewed if the company is to perform commercially and achieve full cost recovery.
- Special attention should be paid to the informal settlements that have developed around Djibouti City, such as PK12.



Country Sector Assessments: Volume 2

## UNDP GoAL WaSH Programme

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

# El Salvador

## National Sector Assessment

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- Is El Salvador on the Right Track to Reach Water and Sanitation MDGs?
- Main Issues to be Addressed
- Distinctive Achievements

### Sector Preparedness Overview

- National Strategies
- Institutional Arrangements and Sector Coordination
- Sector Financing
- Sector Monitoring and Evaluation
- Sector Capacity

### Sector Sustainability Overview

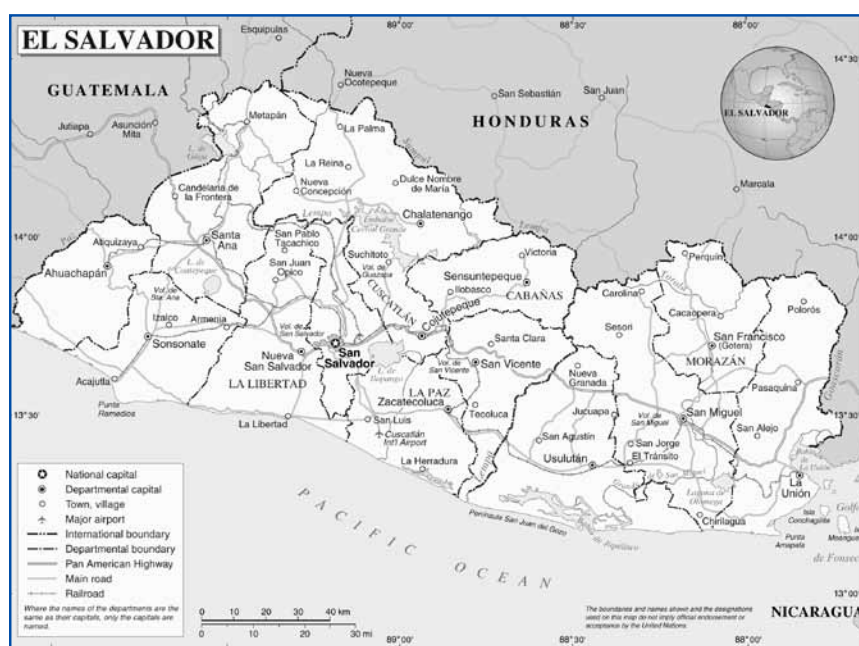
- Sector Sustainability Scores



# MDG Outlook

## Is El Salvador on the Right Track to Reach Water and Sanitation MDGs?

El Salvador's second MDG report, released in 2009, shows that in the past 18 years good progress has been made to reach many of the MDGs<sup>1</sup>. In the case of water access to an improved source has increased from 63.6% in 1991 to 83.9% in 2007, (the original goal was to attain 81.6% by 2015). In the case of sanitation, the proportion of the population with access to improved sanitation in 1991 was 76.7%, which rose to 92% in 2007.

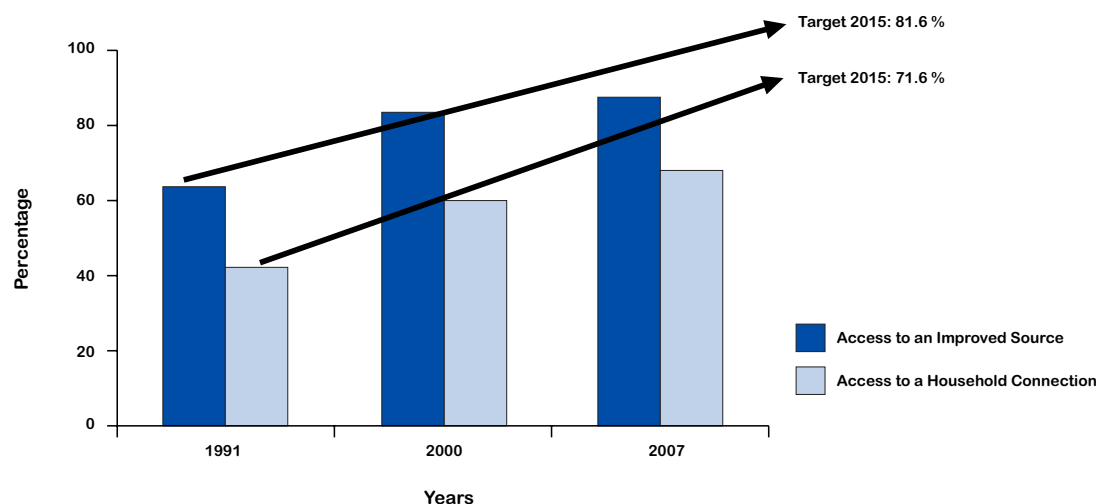


However, the sector is still perceived to be underperforming. National expectations for water access are to achieve universal household access, yet household connection access has only increased from 42.2% in 1991 to 67.5% in 2007, with the original goal of 71.6% to be reached by 2015. Reports from agencies in the sector, including the Water and Sanitation Network of El Salvador (RASES), show that despite good progress in new investment projects, many existing services are irregular and have serious water quality and sustainability problems.

<sup>1</sup> El Salvador second report of country: "No Excuses We achieve the Millennium Development Goals by 2015". El Salvador. Gobierno de El Salvador-PNUD. 2009



Figure 1: Percentage of homes with access to an improved water source. El Salvador 1991–2007



Despite the progress in overall sanitation coverage, distribution is skewed between rural and urban areas: in 1991 rural areas had 59.8% coverage and urban coverage was 95.3%. In 2007 rural coverage (at 83%) is still behind urban (97.31%). The service quality is poor and 94% of sewage is discharged untreated into rivers and creeks, affecting the quality of the water sources. This has serious environmental and health consequences. According to the Salvadoran Foundation for Economic and Social Development (FUSADES) 2004, 61% of the samples in rural drinking water systems showed contamination by fecal coliform.

Key civil society organisations consider that the country does not have an adequate plan in place to sustain services to meet the MDGs for 2015. Previous administrations did not design specific programmes to focus on water and sanitation and in recent years the strategy has rested primarily on external sources for investment. El Salvador's new government has committed itself to prioritizing the extended coverage of water and sanitation in the country, with an emphasis on rural areas. However, no explicit strategy or targets have yet been articulated.

The following table shows El Salvador's institutional progress in relation to water (W) and sanitation (S). Note the difference between urban and rural areas.

Table 1: Progress Towards a MDG Road Map

Description of the step	Rural		Urban	
	W	S	W	S
Institutional leader identified	●	○	●	●
Stakeholder consultation	●	○	●	●
MDG action plan	●	○	●	●
Resources mobilized	●	○	●	○
Implementation on track to reach MDGs	●	○	●	○

○ Not started    ● In progress    ● Completed

So while El Salvador has made good progress in achieving the formal access goals of the MDGs, the quality of services remains low and key indicators, such as gastrointestinal diseases (due to poor water quality), are at unacceptable levels.

The table below shows the investment required to achieve and sustain the goals set for 2015. This investment is only for the rehabilitation of already outdated systems. It neither considers the institutional and legal reform measures necessary nor the financial requirements for development and the strengthening of the service providers at local and/or municipal levels.

Table 2: Investment Requirements

Source: RASES 2008. Proposal of investments in water and sanitation in El Salvador.

Indicator		Population Covered by WSS					Total Investment Required in WSS	
		1991	2002	2006	2015	Progress	New Services Investment \$US	Rehabilitation Investment \$US
Water	Rural	56.7	73.7	72.5	78.3	5.81 %	\$ 98.9 m.	\$ 45.0 m.
	Urban	91.8	96.6	94.0	95.9	1.90 %	\$ 157.2 m.	\$ 57.4 m.
	Total	76.1	88.1	85.9	88.1	2.24 %	\$ 256.1 m.	\$ 102.4 m.
Sanitation	Rural	59.1	84.3	80.3	79.6		\$ 40.7 m.	\$ 17.1 m.
	Urban	95.4	98.1	94.9	97.7		\$ 159.4 m.	\$ 25.7 m.
	Total	78.1	93.0	90.7	89.0		\$ 200.1 m.	\$ 42.8 m.
TOTAL INVESTMENT							\$ 456.2 m.	\$ 145.2 m.

## Main Issues to be Addressed

### I. Legal and regulatory framework reform:

A key issue to be addressed in El Salvador is to develop an appropriate legal framework that can put in place clear laws on roles and responsibilities for all the stakeholders in the water supply and sanitation sector (WSS). A 'General Law of Waters' and a 'Drinking Water and Sanitation Law' should be established, an entity responsible for WSS enforcement. This is especially important because Salvadoran water and sanitation service providers do not have an institution to regulate them and to ensure efficiency and quality of service. A monitoring body is required to expand coverage at the local level.

The legal and regulatory framework reform should include:

- **Creating and strengthening a governing body:** A governing body should be created to apply and enforce rules and regulations regarding water and sanitation. The body should be involved in identifying challenges and priorities and transforming these into goals, objectives and strategies as part of a national plan of sectoral development. At present, the National Administration of Aqueducts and Drainage Systems (ANDA) perform this role to a certain extent.
- **Sectoral coordination among different actors in the sector:** Sector coordination of the different actors within WSS needs strengthening. The dominant service provider at present is ANDA. Other service providers include municipalities, decentralized service providers, housing developers and rural cooperatives. Coordination is necessary to ensure that approaches are coordinated and consistent and built to scale.

## II. Sustainable management of water and sanitation services:

The second major sector challenge is to achieve sustainable service management in the sector. The capacity and policies of small municipalities, as well as urban areas, require strengthening. Investment in new systems should take place under the approach of Integrated Water Resources Management. This will enable users and other key social figures to participate in the identification, prioritisation, planning, implementation and management of systems.

### Some measures in this regard include:

- **WSS information:** Insufficient public information on WSS in El Salvador is currently provided by ANDA. Although the organization reports information based on the services that it manages, it does not collect information from other service providers. This limited information system does not facilitate proper planning or strategy in the sector. Technological modernization is necessary for the capture and analysis of relevant information, including data about the availability and conditions of water sources, coverage levels for drinking water, service quality, investment needs and other information related to the development of the sector.
- **Capacity building for municipal and rural systems operators:** Many of the rural water systems administered by the municipalities have serious deficiencies and limited sustainability. Deficiencies include insufficient pipe capacity and distribution networks, inadequate security systems, deficient monitoring data, and limited administrative and financial capacity. In rural areas, most service providers are community-based organisations that are not recognized as providers by the national institutional and legal frameworks. As such, they do not benefit from any capacity building. These rural operators should adopt consistent policies so that they receive fair subsidies, technical support, financial aid to expand water systems, and strategies for the conservation of water.
- **Financial systems for sustainability of services:** Many WASH services are not financially viable. Financial arrangements for water and sanitation require review and methods need to be developed to enable local service providers and ANDA to generate adequate revenue streams to cover costs. Financing mechanisms are needed that generate funds to improve existing systems and to expand the coverage across the country. At present, the fee that applies to systems administered by ANDA does not cover operation and system maintenance costs. Furthermore, rural boards and municipalities that administer systems have their own fees that are not regulated by the state.
- **Sanitation, treatment and disposal of sewage and excreta water:** Adequate treatment, purification and disposal of residual waters in the metropolitan and municipal zones of the country could eliminate the high levels of contamination of surface and underground sources of water. However, at present there is little compliance with the treatment standards for wastewater and excreta disposal. In order to increase compliance rates, coordination between institutions at central and local levels, including the Ministry of Public Health and Social Assistance (MSPAS), is required.

## Distinctive Achievements

Briefly, this section highlights informative, instructive and distinctive features of the WSS in El Salvador.

### Solidarity Network Programme

The Solidarity Network Programme is a social programme created by the government of El Salvador to alleviate extreme poverty. One of its components seeks to strengthen basic services in education, health and nutrition by developing infrastructure for the provision of drinking water, rural basic sanitation and the electrification of schools and health centres. Between 2005 and 2008, the Solidarity Network Programme invested US\$38m. in drinking water and sanitation in areas of extreme poverty.

### Water Agenda

A water agenda has been developed by diverse social organisations, including networks such as RASES, CND, FUNDE and UNDP. The agenda addresses strategic water management issues in El Salvador. One of the components of the water agenda emphasizes the need for an institutional and regulatory framework, and highlights cost recovery challenges in the sector.

### Hydrogeological Map

A national water map (on the scale of 1:100,000) was drawn up by ANDA with the financial cooperation of the Swiss Agency for Development Cooperation (SDC). The map is a valuable tool for sustainable management of water resources in the medium and long term. It will contribute to sector development and planning by providing detailed information about the extent, water quality and sustainability of aquifers.

## Sector Preparedness Overview

### National Strategies

The Salvadoran government does not have a structured national strategy focusing on the MDGs. A Solidarity Network Program aims to extend water coverage to all municipalities (up from the current rate of 68 out of 100 municipalities). MSPAS' Environment Unit has regulations for environmental sanitation and water quality monitoring, but does not have an effective plan for addressing and promoting environmental sanitation.

As a response to this, civil society organisations, led by the Forum on Potable Water and Sanitation for Central America and the Dominican Republic (FOCARD-APS), designed a sanitation roadmap aiming for 100% improved sanitation coverage. This roadmap includes promoting safe excreta disposal solutions and managing wastewater and sewage, through participatory processes. The roadmap notes that the main challenges of sanitation are institutional coordination, and getting a realistic budget in place. MSPAS is seeking to incorporate these components within its comprehensive health care approach, including: building the capacity of sanitation artisans and inspectors; strengthening sector coordination; and encouraging financial support from donors.

Since 2000, ANDA has tried to promote decentralisation but so far it has only delegated some of its administrative functions and a mere 6% of its local service provision. The decentralisation process has lacked legal and institutional clarity, thereby limiting its impact and sustainability. ANDA created a Decentralisation Unit (UNES) to promote decentralised forms of management of water and sanitation systems. The aim is to encourage delegation of administrative responsibilities from ANDA to local operators. This has led to investments of nearly US\$37m., benefiting over 227,000 Salvadorans.

In a follow-up to the water agenda (see above), the National Foundation for Development and the Corporation (FUNDE) and USAID have developed programmes to encourage political water management dialogues. These have centered around three themes: i) a strategy for decentralised WSS management; ii) extended coverage of WSS; and iii) an institutional framework to pay for environmental services.

These proposals have been discussed and presented to civil society actors. Then they will be submitted to policy makers in the water and sanitation sector. The proposals have resulted in the creation of a Water Fund (FOAGUA) to generate resources to expand rural coverage and sustainability. This fund has benefited from economic studies on tariff setting, local government fund generation, and community contribution scenarios.

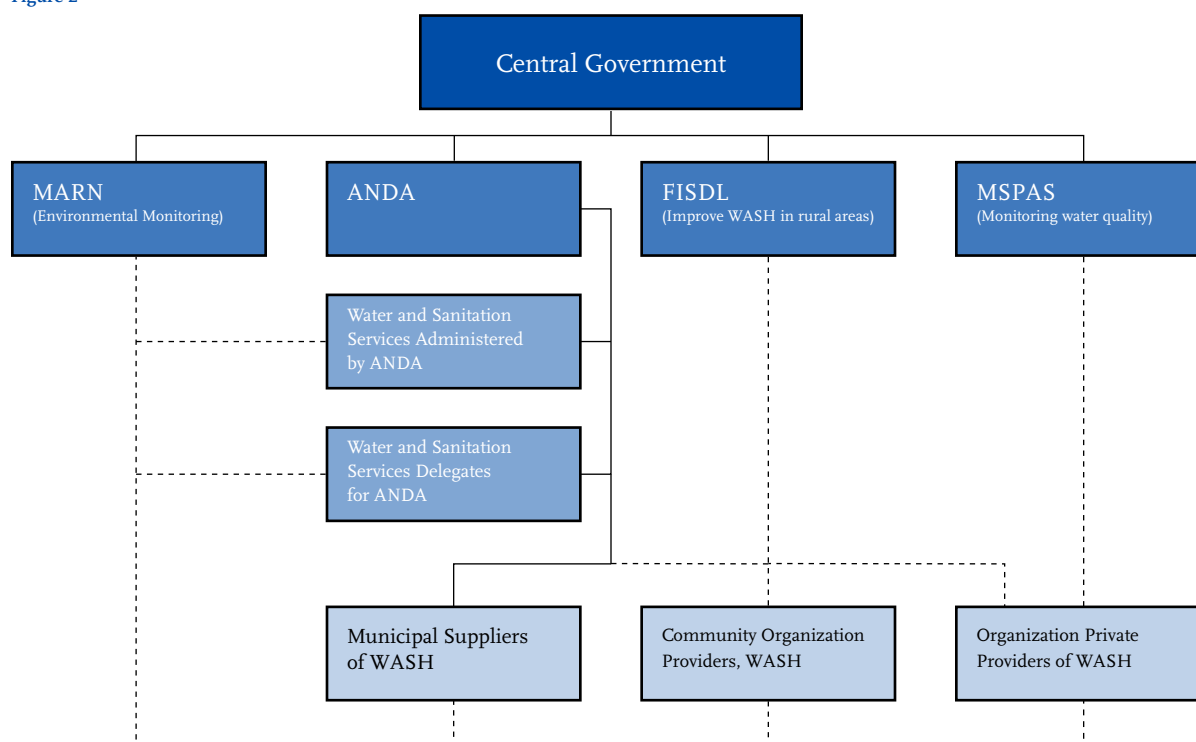
### Measures to Improve National Strategies

1. Define a clear public water management policy for the country, particularly as regards water, sanitation and hygiene (WASH).
2. Clarify the institutional framework, defining the role of each organisation, and how citizens might participate in the management of water.
3. Develop a strategy to finance the water and sanitation sector to include an increase in public sector financing of new investments and setting tariff structures so that revenue streams cover the cost of system operation and maintenance.
4. Recognize the various informal providers in both urban and rural areas, and design and implement a capacity-building programme to enhance local water management.
5. Analyse the need for a legal and institutional reforms to enable the organisation of WSS.

## Institutional Arrangements and Sector Co-ordination

The existing government institutional arrangements are described in the table below. The government has recently embarked upon a programme of regulatory and institutional reform of WSS. It has been agreed initially that FISDL, ANDA, the Ministry of Environment and Natural Resources (MARN), and the Technical Secretary of the Presidency (STP), manage resources for sector planning processes. The expectations on these entities are clearly defined as follows: assisting the competencies and operations of ANDA; supporting rural, private and community operators; and decentralisation of responsibility to the municipality level.

Figure 2



FISDL's mission is to negotiate and implement projects to supply drinking water in rural areas. In the last ten years, a considerable number of projects have been implemented through the Solidarity Network Programme, especially in municipalities with extreme poverty.

MSPAS is responsible for surveying the quality of drinking water for human needs. Even though there is a programme that analyses samples of water in urban and rural areas, resource limitations mean that the number and frequency of samples is low. As a result, the quality of the water is not adequately monitored. According to the Law of Environment and the Special Regulations of Wastewaters, MARN is responsible for monitoring wastewater discharge. However, the scarce allocation of resources for this ministry and the lack of political commitment from the executive have prohibited the elimination of the sources of contamination. Nevertheless, some solid waste disposal services have improved. This was considered one of the most important accomplishments of MARN in 2007. However, the sustainability of these improvements is uncertain because of poor cost recovery.

Regulations and controls regarding water and sanitation are inadequate in El Salvador. Most water systems are not audited. No supervisory body for service providers exists. A study carried out by CARE El Salvador in 87 municipalities showed that only 65.6% of the existing systems have judicial and administrative support<sup>2</sup>. In rural areas, users spontaneously operate as observers of supply quality by reporting irregularities in service provision. Also, NGOs, including CARE and Project Concern International (PCI), have implemented a new body—the “surveillance council”. However, there is no specific institution regulating suppliers and guaranteeing quality and services for users.

In the absence of any regulatory body for the WASH sector, ANDA is responsible for providing nationwide drinking water and sanitation services. ANDA currently manages 70% of the urban systems and 11% of the rural systems. The rest of the rural zones are left with no support or technical/financial assistance from the state.

Since 2005, the Solidarity Network Programme has coordinated institutions such as ANDA, the Social Investment Fund for Local Development (FISDL) and Environment and Natural Resources Management (ENRM) at local levels. However, there has been no national level coordination. As a result, reforms have been driven by civil society organisations. This has resulting in many challenges for ANDA and other local WASH providers. To address this, a proposed law for the water and sanitation sub-sector was submitted to the Legislative Assembly in 2007.

For the period 2009-2014, the Salvadoran government is working on a strategy to improve coordination of both the rural and urban sector programmes, particularly between FISDL, ANDA and ENRM. For the 100 municipalities identified as experiencing severe, high and extreme poverty, the government has established a goal of 100% coverage in water and sanitation. These programmes also seek to facilitate cooperation with international banks and donors to leverage funding.

In order to overcome the challenges of the sector, El Salvador needs better coordination and clarity in institutional responsibilities. It is essential that a governing body is established and that institutions are able to support and supervise the administration of water resources and WASH services.

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<sup>2</sup> Guidelines for a policy of development of the rural drinking water and sanitation sector.

### Measures to Improve Institutional Arrangement and Reform Implementation

1. Clear roles for the various institutions must be defined.
2. Institutions should articulate a strategy to meet the demand for drinking water and sanitation.
3. The different water and sanitation service providers at the local level need to be mapped.
4. Community providers of water and sanitation must be legally and institutionally recognised.
5. Innovative regulatory mechanisms to achieve progress in local governance of water and sanitation must be promoted.
6. Water boards should be recognised as service providers.
7. An institution needs to be established that satisfies the needs and demands of the water boards by providing assistance and consultancy, aiding conflict resolution, and supporting efficiency in the provision of services.

## Sector Financing

El Salvador faces two main challenges regarding the financing of WSS: the maintenance of existing infrastructure; and greater coverage to new users. According to estimates made by RASES, US\$373m. is needed to address both of these challenges.

A RASES study found that the country requires US\$256m. in new water systems in order to increase coverage to 100%<sup>3</sup>. A further US\$102m. is needed for the rehabilitation and improvement of existing systems and nearly US\$15m. to plan new drinking supply systems. The amount required for the rehabilitation and improvement of systems is 40% of total investment.

ANDA financing policy does not recover the costs of operation and maintenance. The average fee is 26 c per m<sup>3</sup> of water, but the actual cost of supply is nearer 69 c per m<sup>3</sup>, i.e., a shortfall of 43 c per m<sup>3</sup>. Government and civil society are developing proposals to update the fees and refocus ANDA's subsidy. At present, the subsidy only applies to systems operated by ANDA. Other rural systems managed by water boards set their own rates. The outcome of these skewed subsidies is that the rural poor end up paying the most for water. A recent study by FUNDE-ESAID showed that the cost of water for 60% of middle and high-income families is subsidized by rural Salvadorans who pay more than twice as much as middle and high-income families for water. According to the study, the current subsidy system fails to help 75% of the poorest families in the country.

Investment in WSS has been made with international cooperation funds, loans and equity. For the period 2003–2009 the invested amount, as reported by ANDA, was US\$110m. Of this, 33% is loans, 27% is international cooperation grants, 11% is from the general national budget, and 29% is ANDA's funds. In the period 2005–2008, FISDL invested approximately US\$27m. 15% of this came from loans and 85% from international cooperation grants. Fund contributors included the European Union, Luxembourg, Ministry of Foreign Affairs and Cooperation (AECID), and The Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), among others.

<sup>3</sup> RASES, 2008. Proposal of financing of investments for water and sanitation in El Salvador.

In 2008, the Spanish government created the Water Fund for Latin America. This US\$1,500m. fund was designated for WSS projects and is open to proposals from countries in the region. El Salvador has prepared proposals in 2008 and 2009 for US\$25m. each. The target of the 2008 proposal is investment in projects to extend rural water systems (US\$22m.). The remaining US\$3m. will be used for strengthening the operators—ANDA, FISDL and MARN.

The 2009 proposal aims to use at least US\$6m. to support institutional reform of the WASH sector to support short, medium and long-term sector planning. Additionally, the proposal outlines an investment of at least US\$15m. in rural WASH drinking water quality improvements.

### Measures to Improve Sector Preparedness and Financing

○ Not started

1. Increase resource flows to improve and expand drinking water systems administered by water boards and municipal enterprises mechanisms.
2. Create a water fund to finance sanitation projects and new drinking water systems.
3. Establish a consistent policy of fees and subsidies for all drinking water and sanitation service providers that enables service providers to cover their costs and provides affordable services by the poor.
4. Establish a strategy to raise adequate funds for future investments in water and sanitation.



**Table 3: Estimation of Investments in Water and Sanitation El Salvador (2008)**

Source: Red de Agua y Saneamiento de El Salvador (RASES).

Estimation of Investments in Water and Sanitation El Salvador (2008)			
Population Censused (May-2008)	5,744,113		
No. of homes	1,372,854		
Urban Population	3,601,559		
Rural Population	2,142,554		
Rural population with piped water	1,114,128		
Rural population without piped water	1,028,426		
Urban population with piped water	3,385,465		
Urban population without piped water	216,094		
Rural population without sanitation	428,511		
Urban population without access to drainage	1,044,452		
	Total Investment \$US millions.	5 Year Investment \$US millions.	Per Capita Cost
Investment in rural sanitation	\$49.7	\$17.4	\$100 per capita
Investment in sanitation sewer	\$303.0	\$106.1	\$250 per capita
Investment in a metropolitan depuration zone	\$391.7	\$195.8	\$250 per capita
Investment in urban municipalities depuration zone	\$269.2	\$80.8	\$120 per capita
Investment in rural drinking water supply	\$328.2	\$114.9	\$275 per capita
Investment in urban drinking water supply	\$75.2	\$26.3	\$300 per capita
Investment to improve of existing drinking water systems	\$225.0	\$112.5	\$50 per capita
Investment in sewer rehabilitation	\$153.4	\$61.4	\$60 per capita
Investment to improve the disposal of household of excreta	\$52.5	\$21.0	\$35 per capita
Investment in protection and conservation of water resources	\$100.0	\$30.0	
<b>TOTAL INVESTMENT ESTIMATE</b>	<b>\$1,948m.</b>	<b>\$766.1m.</b>	
<b>ANNUAL INVESTMENT ESTIMATE (15 yrs.)</b>	<b>\$129.9m.</b>	<b>\$153.2m.</b>	

## Sector Monitoring and Evaluation

Water supply coverage is monitored annually by the National Census of Health's (FESAL) household survey. This National Census includes questions on water supply and sanitation coverage and is carried out every two years. However, national survey indicators are different from the MDG achievement indicators and reconciling these different figures is complex and confusing. RASES has expressed the importance of having a public debate to clarify these issues. The official FESAL statistics include a regularly updated inventory of all water facilities in urban and rural areas, with no distinction between functioning and non-functioning facilities. Additional data gathering deficiencies are that unit cost and cost-effectiveness studies are not carried out systematically.

The Ministry of Health monitors some indicators related to WSS, such as the prevalence of diarrhea and other water related diseases. Health monitoring programmes for urban water and sanitation systems are limited to analyzing water samples. Analyses focus on the bacteriological qualities of the water, but do not consider factors such as continuity of service, systems' pressure and conditions in rural systems. Monitoring of sanitation and hygiene is also poorly developed. Poverty is measured by the Unsatisfied Basic Needs (UBN) method, and sanitation is considered, with water, as a UBN. Water and sanitation are not differentiated and are measured as one unit.

While there is no countrywide system of monitoring and evaluation, several individual projects have effective monitoring approaches. ANDA engages in management planning encompassing some monitoring functions. Reports are communicated through annual bulletins. While MSPAS does monitor the quality of water, it does not cover the whole country. Indicators such as service quality, water pressure and continuity of supply are not monitored, nor evaluated.

### Measures Identified to Improve Monitoring of Sector Performance ☐ Not started

1. Incorporate indicators that reveal the quality of service delivery.
2. Develop a data capturing system for the various water and sanitation service providers to collect and process information.
3. Develop an evaluation system that ensures that the decision makers' strategies meet the needs of the sector.

## Sector Capacity

Institutional capacity is a serious sector constraint. ANDA does not have enough capacity to act as the principal water provider in El Salvador and respond to all the demands of the sector. In particular, the regional and district level departments of ANDA have low capacity and, as a result, most sector actions must be planned and executed by central government.

UNDP is initiating a national WASH capacity building programme together with the Spanish Cooperation Agency (AECI).

While local contractors do have sufficient capacity for civil and hydraulic work, supervision needs to be improved, and financial management of contracts is weak. Currently, most common materials (pumps, pipes, fixtures and meters) are locally available and several brands have dealers in El Salvador. Notable exceptions are sewage pumps and larger water supply pumps that have to be ordered from abroad.

Sanitation boards in rural areas, small towns, and municipalities operate and maintain their own water supply systems. These providers invariably lack capacity to manage their systems and central government support is necessary to sustain services.

### Measures Identified to Improve Sector Capacity to Deliver the Sector Programme

1. Develop a strategy to strengthen capabilities in the regional offices of ANDA.
2. Implement a programme to strengthen drinking water supply by rural service providers.
3. Build capacity in the environmental units of the municipalities.

## Sector Sustainability Overview


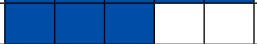

The sustainability outlook for the sector is low because a comprehensive vision of service provision has yet to be developed. Current public policies are aimed at increasing the supply of services without guaranteeing the availability of water quantity and quality. No clear public policies exist to ensure the sustainability of investments.

### Sector scores are:

- Rural and Small Towns Water Supply – 24%
- Urban Water Supply – 45%
- Rural and Small Towns Sanitation and Hygiene – 26%
- Urban Sanitation and Hygiene – 35%
- Overall Sustainability – 37%

## Sector Sustainability Scores<sup>4</sup>

### Overall Sector Sustainability

Institutional										50
Financial										30
Overall										37

### Key Issues to be Addressed for Improving Sustainability:

- Reform the legal framework.
- Define and strengthen the WASH sector lead institution.
- Strengthen the Ministry of Environmental and Natural Resources.
- Improve transparency of sector activities.

<sup>4</sup> This section aims to succinctly describe and provide a quantitative assessment of sector sub-sector sustainability by assessing the status of 'success factors' in rural and urban WSS. Performance of 'success factors' is captured by specific questions on institutional and financial aspects of sustainability. A score out of 100 is presented for each aspect and an overall score weighted by 50% for institutional, and 30% for financial, factors.

### Sustainability of Rural and Small Towns Water Supply

Institutional												40
Financial												15
Overall												24

#### Key Issues to be Addressed for Improving Sustainability:

- Strengthen operators to improve management and technical operations.
- Create special financial funds to support services' expansion.
- Create or strengthen a government institution to support community operators.

### Sustainability of Urban Water Supply

Institutional												60
Financial												40
Overall												45

#### Key Issues to be Addressed for Improving Sustainability:

- Reform the legal framework to establish clear rules for the management of the water systems and to encourage actors to invest in the sector.
- Define and strengthen governmental institutions to improve management and operational capacities.
- Improve transparency of sector activities.

### Sustainability of Rural and Small Towns Sanitation

Institutional												40
Financial												20
Overall												26

#### Key Issues to be Addressed for Improving Sustainability:

- Strengthen and improve capacities of rural operators to address rural sanitation as well as water supply.
- Develop local government capacities to implement and supervise sanitation systems, septic tanks and latrine construction.
- Design and implement a national educational programme to improve hygiene and hand washing.

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### Sustainability of Urban Sanitation

Institutional												30
Financial												25
Overall												35

### Key Issues to be Addressed for Improving Sustainability:

- Reform the legal framework to involve key actors in the sector in investment and management.
  - Improve ANDA's technical and financial capacities for sewerage management and expansion.
  - Draw on community participation in the planning and development of low cost sanitation for deprived areas.
  - Plan and implement investments in wastewater treatment systems.
- 

### Measures to Improve Sector Sustainability

1. Review public policy and incorporate new approaches to advance the sustainability of the water and sanitation sector.
2. Shape a sector work-team involving public institutions and civil society to promote a sector sustainability strategy and international cooperation.
3. Develop a strategy to meet co-ordinate of the various providers of drinking water, particularly in rural areas.
4. Identify and develop standards for the infrastructure required in rural and urban areas.
5. Encourage service providers to develop plans to conserve and protect water sources.
6. Emphasize local management of water with participation of citizens and local governments.
7. Establish a system of monitoring and evaluation indicators to ensure sustainability in the provision of drinking water and sanitation services.



## Country Sector Assessments: Volume 2

### UNDP GoAL WaSH Programme

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

# Mongolia

## National Sector Assessment

### MDG Outlook

- Is Mongolia on Track to Reach Water and Sanitation MDGs?
- Main Issues to be Addressed
- Distinctive Achievements

### Sector Preparedness Overview

- National Goals and Strategies
- Sector Coordination
- Institutional Arrangements
- Sector Financing
- Sector Monitoring and Evaluation
- Sector Capacity

### Sector Sustainability Overview

- Sector Sustainability Scores

# MDG Outlook

## Is Mongolia on Track to Reach Water and Sanitation MDGs?

Mongolia is divided into 21 major administrative units known as *aimags* and one capital city, Ulaanbaatar. Each of the major administrative units is further divided into smaller administrative units known as *soums* (340), and the *soums* are divided into *bags* (around 1,664), which are the smallest administrative and territorial units in Mongolia. The capital city has nine districts and 121 *horoo*s (sub-districts).



In 2008 the population of Mongolia was estimated at 2.76 million. The annual population growth rate is 1.2%. Mongolia is sparsely populated with an average population density of less than 2.0 inhabitants per km<sup>2</sup>.

Approximately 38.17% of the population resides in rural areas and 39.94% of Mongolians live in Ulaanbaatar City according to 2008 statistical data.

Approximately 20% of Mongolia's water consumption is provided from surface water resources and the rest from groundwater. The various types of water usage are assessed as 18.1%

for drinking and domestic use, 39.3% for industry, 24.0% for animal husbandry, 17.4% for irrigation and 1.2% for other purposes.

In recent years, water consumption has been increasing in Mongolia, due to a rise in the urban population and overall social-economic development. The impacts of climate change and human activities have resulted in increased water scarcity, increased pollution of ground and surface waters, and water regime change. This deterioration will continue in future unless appropriate action is taken, especially as Mongolia has scattered and limited water resources. The latest inventory of surface water bodies in 2007 has indicated a 10% reduction of surface water bodies between the 2003–2007. The annual precipitation amount is averaging 200–220 mm, ranging from 38.4 mm in the extreme south (Gobi desert region) to 389 mm in limited areas in the north. Approximately 90.1% of precipitation evaporates, so only 9.9% flows away as surface runoff, partially recharging the ground water aquifers, the main source of water consumed in Mongolia.



The review of the current status of MDG implementation in Mongolia shows slow progress in general, unsatisfactory performance and weak coordination of policies aimed at implementation of MDGs. Reliable and well-accepted figures on WSS are notably absent and the sector lacks a set of commonly agreed categorization, statistics and goals.

The MDG 7 aims to: “halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation”. As this was against the 1990 baseline data, the Target 7.8 of MDG 7 is to increase the coverage of improved water sources to 60% in 2015 (from 30.8% in 1990) and reach improved sanitation services to 40% of the population in 2015 (from 22% in 1990). In 2006 the progress with regard to improved sanitation was slow, increasing by only 4.6% in 16 years to 26.6%. The progress towards improved water supply was a little better, increasing by about 8.4% to 39.2%. Given these growth rates, it would be fair to suggest that the MDGs for both water supply and sanitation may not be met in Mongolia.

Figure 1: Mongolia Drinking Water Ladder, 1990–2006

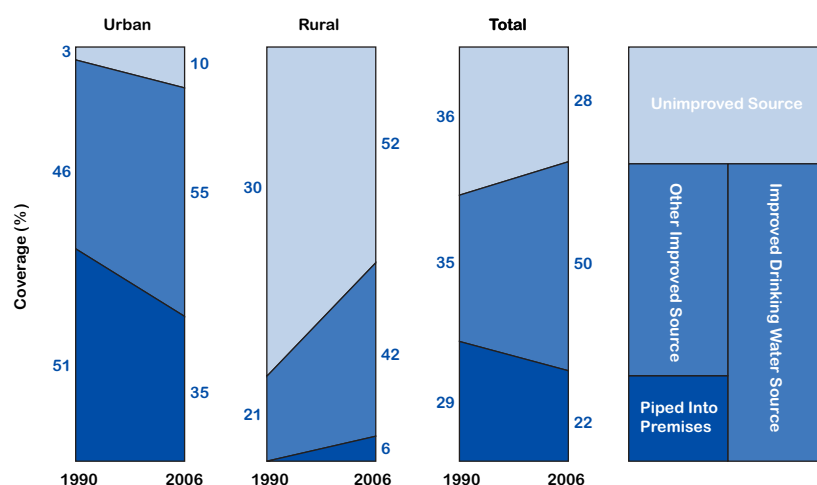
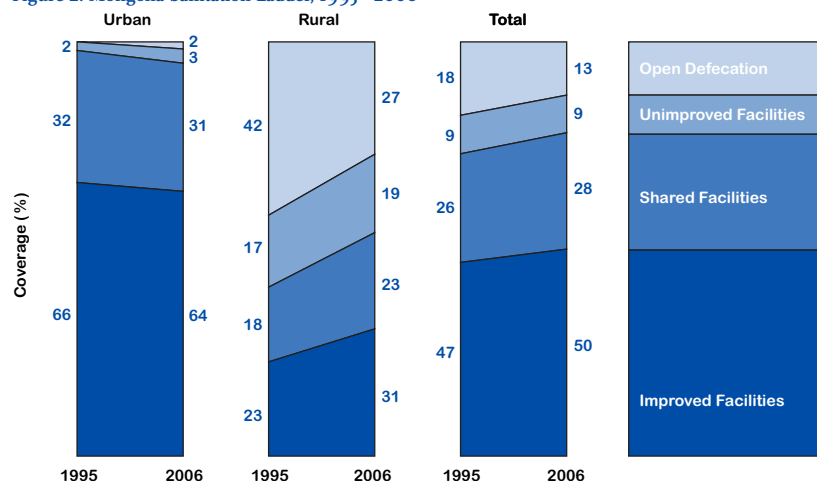


Figure 2: Mongolia Sanitation Ladder, 1995–2006



## Main Issues to be Addressed

- **MDG achievement:** Mongolia is not on track to meet the MDGs, especially for sanitation (but water is also well off track). There is an urgent need for a road map or action plan to meet the water supply and sanitation sector (WSS) MDGs.
- **Leadership and coordination:** In terms of functional allocation of tasks related to WSS, there is no single ministry, department nor agency at the central level that is assigned the task of planning and making provision for the WSS. Leadership and coordination is weak. The Ministry of Roads, Transportation, Construction and Urban Development, formally has this responsibility, but has no influence over resources and little liaison with external stakeholders. The Ministry's outreach does not cover WSS in rural small towns — *soum* and *bag centres*. A recent sector re-organisation that seeks to clarify roles and responsibilities is awaiting approval, but there is little evidence as yet of this providing more coherent leadership in the sector, and there are still some major gaps in role fulfilment (e.g. national leadership for rural water supply, and rural and urban sanitation).
- **Financing:** There is no sector financing plan to get Mongolia back on track to meet the MDGs. There is an urgent need for a financing plan for both rural and urban services. There has been little analysis of budget or financial flows, and no apparent strategy as to how to increase sector allocations. Revenue streams from water sales are low, and tariffs are skewed and do not support a pro-poor policy. A review of water tariffs is necessary; currently the consumers pay only for service connections, but not for the water itself. Whilst some project finance exists to improve urban services by the government and external partners, financial support for a coherent rural programme is limited. Most of the programmes approved by the government lack comprehensive plans and financing strategies.
- **Putting decentralization into practice:** Responsibilities are in principle decentralized, but there is little rural sector policy guidance or financing strategies. Capacity at *aimag*, *soum* and *bag* levels is weak. There is a need for detailed mapping of rural WSS implementation responsibilities. Unless the financial allocation system is modified, it will continue to be challenging to realize decentralization efforts, as well as inter-sectoral coordination of WSS.
- **Town and small town WSS management:** Town and small town WSS (*aimag* and *soum*) management is weak with little capacity, poor services, and little revenue. Sanitation management is non-existent in most *soum* centres. The sector needs a review of management models and there is no established practice for paying for, or maintaining, services.
- **Sector monitoring:** Sector data is unclear and confusing. There is a need to establish clear sector information and monitoring systems.
- **Regulatory control:** External regulatory control is weak regarding urban sector services and environmental protection. As a result, there are pollution and water quality concerns, inequity in service costs, and little rational basis for tariff setting.
- **Urban Ger population:** Specific strategies are needed to meet the needs of growing ger populations, where sanitary pollution is worst and water costs are highest. While apartment dwellers pay 0.3 to 0.4 MNT per litre for water, the *ger* district dwellers pay three to five times more, ranging from 1.0 to 2.0 MNT for every litre.

- **Rural WSS for nomadic population:** Specific strategies are needed to provide water and sanitation services to nomadic populations. Currently, no policy or strategy that considers sanitation service for nomadic population is in place.
- **Sanitation:** The sanitation sector as a whole requires specific leadership, finance and a strategy for urban, *ger* and rural service development. A ladder of sanitation options for Mongolian conditions needs to be developed. A significant behaviour change programme is needed to improve hygiene and sanitation behaviour. Updating sector professionals on current thinking regarding sanitation is also needed.
- **Consumer voice:** Civil society organizations are weak or non-existent, and there is need to develop consumer water education and voice to improve the dialogue between users and suppliers of services.
- **Public institutions:** WASH services in public institutions, such as schools and hospitals, are inadequate and poorly managed, due to lack of funding.
- **Skills and capacity:** Whilst Mongolia has existing training capacity and some highly experienced engineers, there is a shortage of senior sector experts with strong comparative experience in water and sanitation provision. Mongolian sector leaders require more exposure to international best practice. In particular, there is a shortage of capacity at *aimag* and *soum* levels.
- **Private sector:** The private sector has not mobilized effectively to support the public sector in managing and financing the WSS. The centralized water and sanitation services are provided by state owned, subsidised Public Utility and Service Organizations.
- **Donor coordination:** Scattered efforts by the external partners for improved WSS need greater coordination by the government to increase WSS effectiveness. Although an information-sharing platform exists, actual coordination is not being effective.
- **Appropriate technologies:** Insufficient attention is given to documenting and standardizing options for service development in extreme environments: e.g., rural sanitation. Increased use of water metering system or saving equipments and the application of water saving technologies should be considered as priorities.
- **Sector economics and prioritization:** The sector appears neglected in comparison with others. Leaders need more clear evidence of the economic impact of existing poor service levels. The sector needs a higher profile supported by better advocacy.
- **Inequity:** There are large disparities in service access between urban, *soum* and nomads. A survey indicates that only 17.3% and 4.8% of the rural households have access to improved drinking water sources and sanitation facilities respectively. The average apartment dwellers in Ulaanbaatar city use 203.2 litres of water per day, while *ger* dwellers use only 5 litres. The living conditions in rural areas are difficult, with minority groups being neglected, and high gender disparities.
- **Water resources scarcity vs. increasing demand:** Mongolia's water resources are highly vulnerable to climate change and are facing serious pollution challenges from mining and urban management. Climate change assessment suggests that during the period of 1940–2007, the average temperature in Mongolia has increased by about 2.10C. A serious degradation of water resources have been indicated by various studies.

## Distinctive Achievements

A distinctive achievement in Mongolia is the establishment of several approved programmes related to improved water and sanitation provision, including: the National Water Programme (2000–2010); Programme on Sanitation Facilities (2006–2015) that focuses on settlements with pipeline networks; Programme on Urban Development and Public Utilities and Programme on provision of safe drinking water to population of Mongolia (2008–2015); and a comprehensive action plan by the government for 2008–2012, based on the National Development Strategy of Mongolia. The Action Plan includes the following WSS objectives:

- Increase supply and accessibility of safe drinking water in line with hygienic requirements, introducing modern technology and technical facilities; continue the installation of water softening equipment to improve the quality of potable water in *soums* and settled areas where water is hard and rich in minerals.
- Improve the infrastructure development in *ger* areas within urban areas.
- Formulate and start implementing a “Rural Development Programme” to:
  - Develop a unified policy on water.
  - Coordinate water resources in large river basins.
  - Construct infrastructure necessary for the transfer of the accumulated water reserve for utilization.

## Sector Preparedness Overview

### National Goals and Strategies

Mongolia adopted the MDGs as the government’s mid-term strategic goal of increasing the coverage of improved water sources to 80%, and improved sanitation services to 70% of the population by 2015, measured against the 1990 baseline average. The Action Plan of the Government of Mongolia for 2008–2012 gives considerable attention to water and infrastructure development. The action plan also specifies targets for the sector. Including these targets between 2009 and 2015:

- Increase water supply for herders and pasture lands; constructing about 800–1,000 boreholes each year.
- Connect rural schools, kindergartens and hospitals to the water supply and sewage systems; build hot showers in each *soum*.
- Connect at least 20–30,000 people in the *ger* areas in the capital city to the central water supply.
- Increase the number of sewerage connections to serve from 50% of the population (up from 23.9% now).

The national strategies and approved programmes are however short of detail on: a) how these targets will be reached and b) specific responsibilities and financing strategies.

### Current legislation and gaps

Mongolia has a wide range of legislation, enactments and standards in force in the public utilities sector of Mongolia, including:

- Law of Mongolia on Water
- Law on Water Supply and Sewage in Cities and Settlements
- Law on Water Resource Use Fees
- Law on Hygiene
- Standard on Industrial Wastewater Discharge into the Sewage System (1997)
- Standard on Pit Latrines and Soak Pits (1980)
- Standard on General Requirements for Selecting a Site for Wastewater Treatment Plants and Treatment Technologies MNS 4288-96-5
- Standard on Water Quality: Guidelines for Taking Water Samples and Samples from Sludge in Wastewater Treatment Plants MNS (ISO) 566-1300
- Standard on Water Quality, Wastewater and General Technical Requirements MNS 494300

However, the extent to which these codes are enforced is unclear. Also many codes and standards do not reflect current needs or financing capability, and it is recommended that these be revised incorporating them into a single updated sector strategy.

## Sector Coordination

Sector coordination in Mongolia is weak—particularly in the allocation of specific responsibilities, prioritization of resources and in liaison with external stakeholders. The sector has recently undergone a process of re-organisation to clarify roles and responsibilities, but it still remains unclear who has responsibility for what components of the sector and who and how the sector is being co-ordinated. There is no umbrella or overarching organization to coordinate WSS issues; it is scattered through several Ministries. A National Water Committee was created in 1988 under the Ministry of Nature, Environment and Tourism, but its mandate has focused on water resource management, not WSS.

### Key Measures to Improve Coordination:

- **Clarify roles and responsibilities:** this should include a review of management models, identification of national leadership, especially for rural water supply, and rural (including nomads) and urban (including *ger* areas in the capital city) sanitation, and a detailed mapping of rural WSS implementation responsibilities.
- **Develop institutional inter-linkages:** strengthen coordination and facilitation at central level to support local governments and integrate of water issues into other sectors' plans.
- **Develop mechanisms to handle inter-local governmental dialogue:** develop communication channels for learning between local governments and possibilities of cooperation to deal with issues of mutual concern, such as water sources, service sustainability, standardization of technologies and water quality.
- **Increase sector cross linkages:** especially with schools, kindergartens and hospitals for safe water and sanitation.

## Institutional Arrangements

Institutional responsibilities within the water sector in Mongolia are poorly defined, especially outside of the capital city. National responsibilities are confusingly allocated across 4 central ministries as outlined in the table below with no clear lead agency managing WSS:

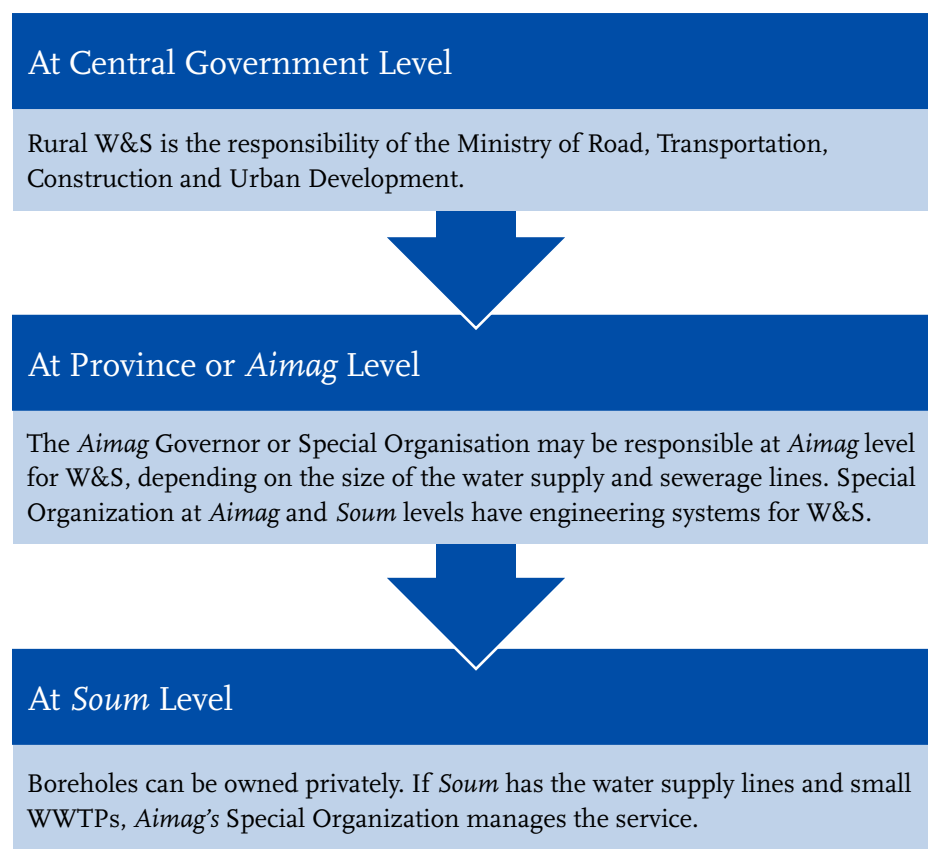
Table 1: Division of national responsibilities amongst Mongolian ministries

Name of Institution	Function and Responsibility
Ministry of Road, Transportation, Construction and Urban Development (MRTCUD)	<ul style="list-style-type: none"> <li>• Manages water supply and waste water treatment in Ulaanbaatar and <i>aimag</i> and <i>soum</i> centres</li> <li>• Oversight of the UlaanBaatur Water Supply and Sewage Authority managing water supply and sewerage (but no responsibility for <i>ger</i> areas)</li> <li>• Implemented a “Sanitation Programme” since 2007</li> </ul>
Ministry of Nature, Environment and Tourism (MNET)	<ul style="list-style-type: none"> <li>• Water policy and legal basis</li> <li>• Hosts the National Water Committee co-ordinating water resource management</li> <li>• Incorporates a Water Agency that manages licensing of water sources, and is responsible for water protection and the management of river basins.</li> <li>• Ecological sustainability</li> <li>• Developed “National Water Programme” to be adopted by Parliament in 2009</li> </ul>
Ministry of Food, Agriculture and Light Industry (MFALI)	<ul style="list-style-type: none"> <li>• Pasture land water supply and irrigation</li> <li>• Food security</li> </ul>
Ministry of Health (MoH)	<ul style="list-style-type: none"> <li>• Water quality and hygiene</li> <li>• Ecological and environmental sanitation</li> </ul>

At present water conservation and water resource management is the responsibility of MNET; water use and licensing are the responsibility of the Water Agency under the MNET; centralized water supply and waste water treatment plants and *soum* small town water supplies fall under MRTCUD; agriculture, pasture land water supply, urban drinking water or industry and mining fall to MFALI; and MoH is responsible for drinking water quality, ecological and environmental sanitation and hygiene.

The task of meeting the WSS MDGs in rural areas has been delegated to the *aimag* and *soum* levels, but it is not facilitated with policy guidance, fiscal flows, or a capacity vehicle.

Figure 3: Schematic responsibilities for RWSS development in Mongolia



In general there is limited support for the WSS by other internal and external support agencies. The table below describes the status of some<sup>1</sup> of the other support institutions operating in the WSS in Mongolia.

Table 2

Institution	Main Interventions	Comments
Academic institutions and NGOs	<ul style="list-style-type: none"> <li>• Technology research</li> <li>• Capacity building</li> <li>• Consultation</li> <li>• Development of training models for WSS</li> </ul>	<ul style="list-style-type: none"> <li>• Solid educational institutions</li> <li>• Capacities of NGOs are limited</li> </ul>
UN	<ul style="list-style-type: none"> <li>• Adopted and implements a Joint UN Programme: UNJPWSS</li> </ul>	<ul style="list-style-type: none"> <li>• Provided case studies and recommendations for improving capacity</li> <li>• Budget to implement joint programme is US\$4 m.</li> </ul>
UNDP	<ul style="list-style-type: none"> <li>• Poverty reduction</li> <li>• Governance</li> <li>• Environmental sustainability</li> <li>• WSS</li> </ul>	<ul style="list-style-type: none"> <li>• UNDP strategy includes direct engagement with the WSS, though its resource base is limited</li> </ul>
UNICEF	<ul style="list-style-type: none"> <li>• Drinking water quality and household treated water</li> <li>• Sanitation improvement in homes and schools</li> <li>• Hygiene promotion and hand washing</li> </ul>	<ul style="list-style-type: none"> <li>• Directly engaged in the WASH sector, though UNICEF's WASH staff is small and no senior staff are presently resident in Mongolia</li> </ul>
WHO	<ul style="list-style-type: none"> <li>• Water quality</li> <li>• Sanitation in hospitals</li> <li>• Hygiene promotion and environmental health</li> </ul>	<ul style="list-style-type: none"> <li>• Has project engagement on WSS in rural hospitals</li> </ul>
Asian Development Bank (ADB) and World Bank (WB)	<ul style="list-style-type: none"> <li>• Development Finance for urban WSS</li> </ul>	<ul style="list-style-type: none"> <li>• 1st phase ADB project was in western <i>aimags</i>; 2<sup>nd</sup> phase ADB in eastern and Gobi <i>aimags</i></li> <li>• ADB project to improve water supply and sewerage systems in <i>aimag</i> in <i>ger</i> areas: US\$4 m.</li> <li>• WB project in Ulaanbaatar city to improve the water services: US\$495 m.</li> <li>• WB sustainable livelihood programme established wells in rural areas, including <i>soum</i> centres</li> </ul>

<sup>1</sup> Other donors supporting the sector include the Netherlands, and the Republic of Czechoslovakia.



### Key Measures to Improve Institutional Arrangements:

- Identify a central agency and institutional structure that takes primary responsibility for the WASH sector.
- Address the lack of clear institutional responsibility for rural water supply, services to *ger* areas and sanitation. Each of these areas needs clarification of institutional responsibility.
- Strengthen *aimag* and *soum* level local government capacity to manage WASH. Building public-private partnerships service delivery at this level might assist in capacity development.

## Sector Financing

While political and administrative responsibilities have been assigned to local governments, the responsibility for fiscal discipline and public sector performance rests with Mongolia's Ministry of Finance (MoF). Even though the Constitution and the 1992 Law on Government Administrative Units had advocated fiscal responsibilities to local governments, the 2002 Public Sector and Financial Management Law (PSFML) centralised fiscal controls.

Subordinate levels of government, including local government officials and central agency budget directors, act on behalf of the central government. As agents of the central government, local governments have some discretionary power to respond to local needs in implementing government policies. Hence, the present structure of intergovernmental relations and fiscal flows incorporates two competing directions of accountability. The first is 'vertical accountability' to the executive of the central government; the second is 'horizontal accountability' to the local *khurals* that are in turn accountable to the citizens and voters who elect them. Hence, the local government structure cannot be characterised as one that is understood as devolution, nor can it be characterised as deconcentration. While the central government has devolved a large part of its functions to local administrative units, it retains near complete fiscal control. For example, subsidies for local schools are allocated directly from the Ministry of Education, Culture and Science; for hospitals, from the Ministry of Health, and so on.

UNJPWSS in Mongolia reports that the Government of Mongolia (GoM), MoF, MRTCU, MoH and other key ministries, have estimated that the achievement of the MDGs for WSS would cost US\$874m. US\$336m. would be required for water and US\$537m. for sanitation (United Nations UNJPWSS, 2008, p.10). A large part of the investment would have to be donor funded and made through central government budgetary allocations, given the poor fiscal resources of local governments.

In Mongolia, budgetary revenues are the highest at central level, and decrease down to the local government levels in *aimag* and *soums*, where the administrative units, as well as revenue opportunities, become smaller. For instance, the percentage of budgetary revenue compared to expenditure is at a high 87% at the central level, compared to the average at the *aimag* level of 63%, and the average at the *soum* level of 35%.

### Key Measures to Improve Sector Financing:

- A comprehensive sector finance study is required to better determine gaps and inefficiencies, and provide a sound basis for developing sector financial strategies at national and local levels to consider how achievement of national goals and the MDGs might be financed, and to increase sector allocations.
- Both the rural and urban services sectors require a detailed analysis of financing flows to determine the routes and levels of existing financing mechanisms and how these might be improved.

- Sector financing is very dependent on central government support. A specific strategy needs to be developed to increase revenue flows, domestic capital support and international investment.
- Water tariffs are presently set without regard to the costs of water provision, partially due to the payment capacity of the consumers. Mongolian water tariffs require revision to achieve better cost recovery
- Fiscal incentives for waste disposal need further development and enforce the 'Polluter Pay Principle' should be enforced into the penalty scheme.
- Water treatment facilities need rehabilitation and sound institutions and fiscal incentives for their sustainability.

## Sector Monitoring and Evaluation

The sector is characterised by a complete lack of consistent and comprehensive data across levels of government and institutions. There is no updated widely accepted set of national data on service access. Particularly weak are service coverage figures in *ger* areas, and for rural water supply and sanitation. Standard definitions of service levels need to be established. Monitoring of financial expenditure in the sector is also very weak, as a result there is little data from which to analyse efficiency, and unit costs.

### Key Measures to Improve Sector Monitoring and Evaluation:

- Clear responsibility needs to be given for developing and consolidating a national WSS database with widely accepted standard definitions of service levels. A nominated agency should establish clear sector information requirements and regular mechanisms for disseminating knowledge of service coverage.
- Consideration should be given to the development of *aimag* and *soum* WSS maps which specify service coverage and levels
- Tracking mechanisms are needed to be put in place to track public expenditure, including in the WSS, and link financial monitoring to sector monitoring.
- Develop a joint monitoring group that includes the government and all other stakeholders, and strengthens and empowers local governments.

## Sector Capacity

Of the 329 *soums*, 49.8% have a population of less than 3,000; 32.5% have a population in the range of 3,000–5,000; 10.3% have a population ranging from 5,000–10,000; and the remaining 7.3% have a population of more than 10,000. Given the size of the population that needs to be serviced at the *soum* level, there is a need to build capacity at the *aimag* level for planning, budgeting and implementation, while building some capacity at the *soum* level for implementation, maintenance and monitoring supervision.

Improving sector capacity at district and municipal levels is a key action to strengthen sector development.

### Key Measures to Improve Sector Capacity:

- Undertake a detailed activity mapping along the various tiers of government and the allocation of functions, funds and functionaries as appropriate across the different levels of central and local governments. Such clarification of functional responsibilities needs to be strengthened with the development of horizontal networks that link adequate capacity to the different tiers of government.
- Develop an appropriate framework for decentralization, combined with support to individual local governments to provide incentives to strengthen capacity at the local level.
- Implementation skills, capacity and experience must be acquired and developed.
- The private sector and NGOs must be mobilized to play more prominent roles.

# Sector Sustainability Overview

This section applies a sustainability scorecard for the sector and provides a quantitative and qualitative assessment of overall sector and sub-sector sustainability by assessing the status of success factors with regard to institutional and financial aspects of sustainability as recognised in the literature and among practitioners.

Performance on the 'success factors' is captured by specific questions. The scores range from 0–100%.

## Sector Sustainability Scores

**Sector scores are:**

- Rural and Small Towns Water Supply – 26%
- Urban Water Supply – 43%
- Rural and Small Towns Sanitation and Hygiene – 21%
- Urban Sanitation and Hygiene – 35%
- Overall Sustainability – 33%

Overall sector sustainability is low, the scores being brought down by institutional and financial factors and weak monitoring. Rural and urban water supply and urban sanitation scores were lowered by weak operations and maintenance (O&M), and management. Rural sanitation scores reflect the limited focus on behavioural change and targeted subsidies and success factors in financial sustainability.

### Key Measures to Improve Sector Sustainability:

- Review the WSS policy with a view to sector sustainability. In particular, examine the sustainability of financing arrangements and give specific consideration for *ger*, *aimag/soum* and services for nomadic rural populations.
- Develop a legal framework for WSS that stipulates standards, targets and defines a regulatory mechanism.
- Promulgate new laws specific to urban sanitation and rural water supply and sanitation.
- Develop a sanitation ladder that provides different options, and includes awareness-creation for communities and sector professionals. Other specific and urgent sanitation actions include: building improved pit latrines in rural areas, and improving waste treatment and sanitation at industrial plant sites.
- Provide greater support to *ger* households in improving private and communal sanitation facilities.
- Develop a higher profile of the WSS and better advocacy mechanisms within government.
- Find ways to develop the voice of WSS consumers.
- Document and develop appropriate technology options for service development in extreme environments e.g., rural sanitation.



## Country Sector Assessments: Volume 2

### UNDP GoAL WaSH Programme

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

# Nepal

## National Sector Assessment

### MDG Outlook

- Is Nepal on the Right Track to Reach Water and Sanitation MDGs?
- Main Issues to be Addressed
- Distinctive Achievements

### Sector Preparedness Overview

- National Strategies
- Aid Coordination
- Institutional Arrangements
- Sector Financing
- Sector Monitoring and Evaluation
- Sector Capacity

### Sector Sustainability Overview

- Sector Sustainability Scores

# MDG Outlook

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

On paper Nepal appears on track to meet both the water and sanitation MDGs. The NDHS figures for access to potable water are 90% urban, 81% rural and 82% overall. The figures below show Ministry of Physical Works and Planning (MoPPW) records of national coverage, and how performance needs to be accelerated to meet the national 2017 target of universal access.



But it is commonly accepted that these figures do not reflect the challenging realities of the sector on the ground<sup>1</sup>. Nepal, with about 80% of its fast growing population of 27.6 m. living in rural areas, has a fragile ecology, rugged and difficult terrain (40% of inhabited areas have high hills and no roads) and is one of the poorest countries in the world (annual per capita income is under \$250). The country is emerging from nearly a decade of internal armed conflict and political instability. In the water sector, a high level of rural breakdowns (up to 56% of schemes need major

repairs, according to a recent WaterAid study) limits actual functional coverage. In addition to serving the unserved, Nepal is facing a huge repair and rehabilitation challenge that needs a comprehensive approach. Access is also heavily skewed by wealth: the richest quintile is eight times more likely to have access to sanitation, and 13 times more likely to have a household water connection. Urban areas are characterized by a high population growth rates (up to 6% per year, driven by poverty and insecurity), an aging infrastructure and significant management and resource constraints. As a result, access to water is for just a few hours a day, and frequently that water is polluted. For sanitation, the recent JMP ladder shows the while service coverage is increasing, half of Nepal's rural population (13 m. people) practice open defecation. This has serious health equity and economic implications—13,000 Nepalis die every year from sector related illnesses.

<sup>1</sup> In 2004 WaterAid argued that Nepal needed dramatic improvements in service access, especially in sanitation and urban water supply.

Figure 1

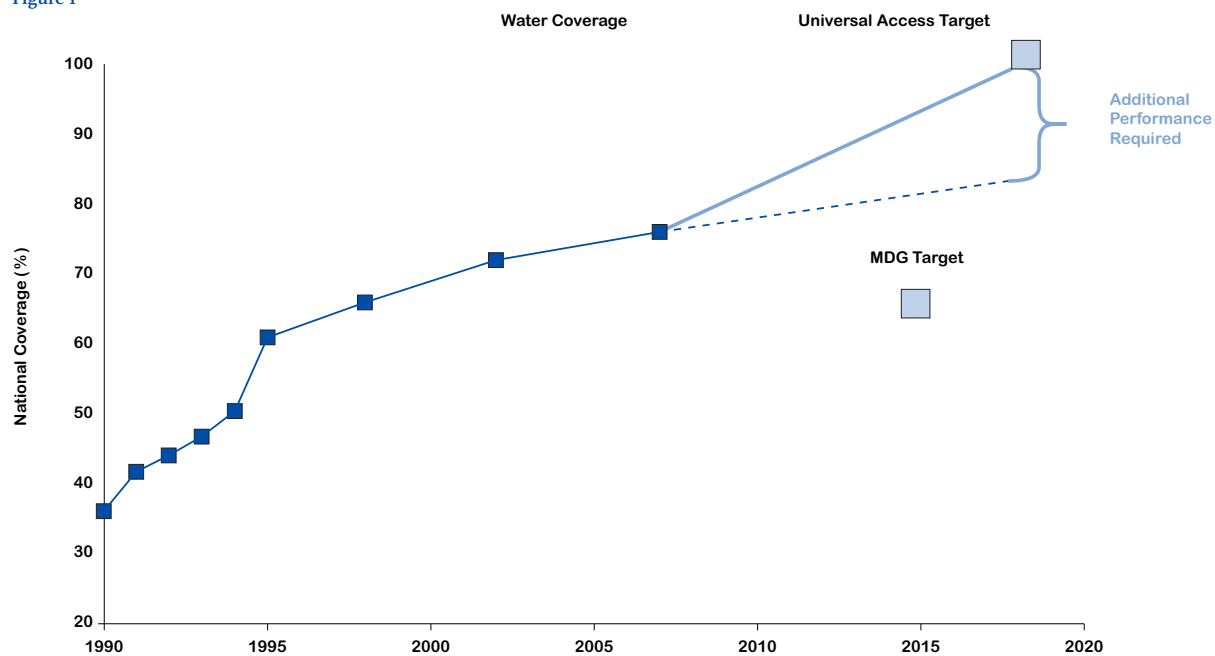


Figure 2

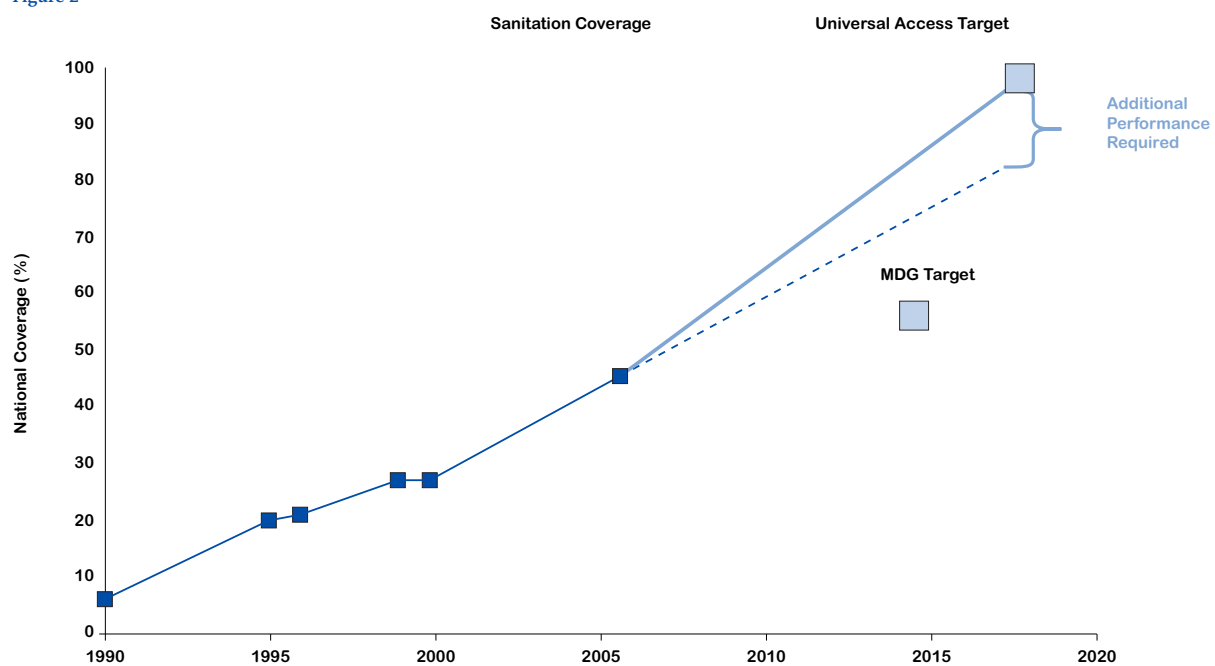


Figure 3: Nepal Drinking Water Ladder, 1990–2006

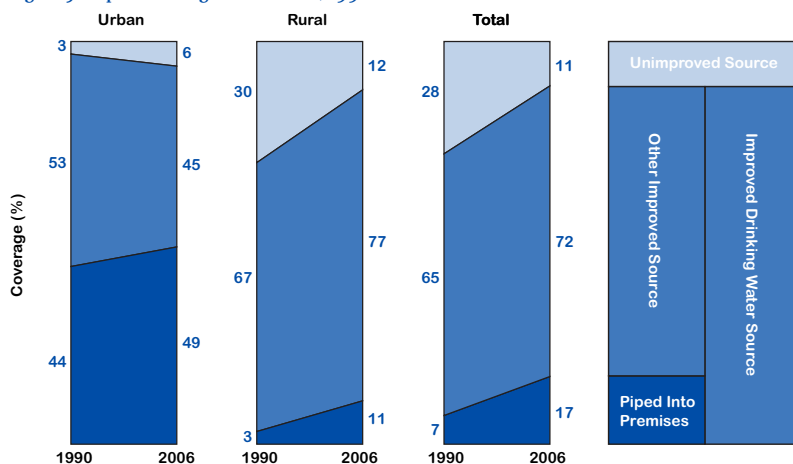
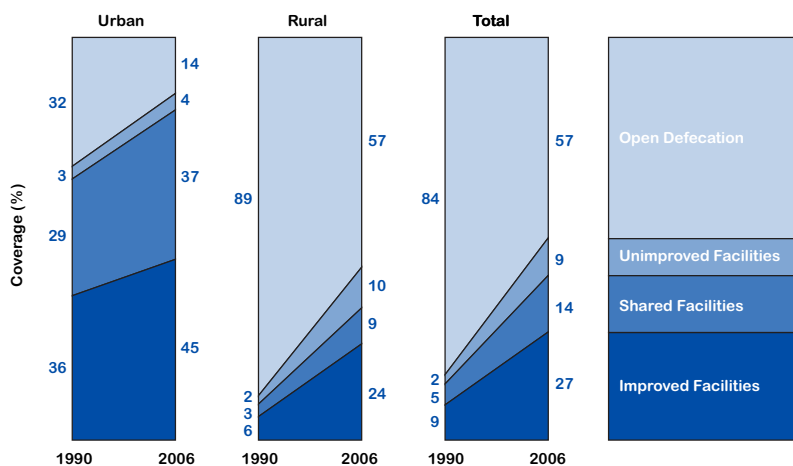


Figure 4: Nepal Sanitation Ladder, 1990–2006



## Main Issues to be Addressed

- Institutional fragmentation and limited sector coordination:** Despite published policies, including a Poverty Reduction Strategy Paper (PRSP) that prioritises the sector and an established institutional framework, the sector in Nepal is characterised by its diversity of sector institutions (several working in parallel with overlapping responsibilities), and a project focus (with a range of modalities of project implementation which can undermine each other). A sector stakeholder group is seeking to improve sector coherence and dialogue through development of a sector-wise approach (SWAp), though the implementation steps are not clearly charted and financed. There has been a tremendous growth in Non-Government Organisations (NGOs), supported by diverse funding streams, seeking to fill the gaps in service delivery.



- **Financing and financial resource constraints:** Budget allocations to the sector declined significantly through the conflict years and are now slowly increasing, but there remains a large shortfall in resources available to meet the MDGs and rehabilitate and sustain the aging and poorly functioning infrastructure. Poverty, low tariffs and poor collection systems limit revenue streams, forcing households to make high investments in coping mechanisms. Most sector finance comes from either central ministries or directly from NGOs that bypasses local authorities, further undermining their low capacity.
- **Inadequate capacity in local authorities:** Lack of local level capacity and resources to develop and deliver effective services is a significant constraint in municipalities, districts and villages. The private sector has limited engagement with the sector, and the capacity amongst the many NGOs is uneven. The reform of urban institutions is proceeding slowly. Decentralisation policies have yet to be put into effect.
- **No updated sector assessment and weak monitoring systems:** Information on the sector is not collated, data is unreliable and definitions are not consistent. Whilst an inventory of sector assets is nearly completed, and a project-monitoring unit is in place, the sector lacks effective performance monitoring. Sector monitoring systems fail to take into account functional access and water quality and need to link services to financial allocations. An urgent priority is to gather information on financial flows, since this critical information for sector decision-making is not available at district or national levels.
- **Inadequate attention to water resource management and water quality:** Whilst Nepal has tremendous water resources (the country has the second most abundant water resources in the world), it is also highly vulnerable to floods, natural disasters and climate change. The water sector lacks investment in infrastructure, has low capacity and lacks the knowledge to manage its water resources. Inadequate treatment of urban effluent has significantly increased environmental pollution. There are significant water quality concerns in both rural and urban areas that do not comply with Nepal's own water quality standards.
- **Socially excluded communities lack consumer voice:** Nepal's diverse population contains underprivileged groups, including many women, who are excluded from interacting with state authorities and are therefore unable to bring effective pressure on governments to demand efficiency, effectiveness, and transparency in service delivery. Progress has been made in establishing and co-ordinating District Water User Groups, but there is much scope for improving the citizen's voice in water and sanitation service delivery.

## Distinctive Achievements

This section highlights briefly two distinctive features of the sector in Nepal:

### Implementing demand-driven policies

The Rural Water Supply and Sanitation Fund Development Board (RWSSFDB) is a semi-autonomous initiative largely funded by the World Bank (WB) that started in the early 1990s with the Jakpas Project, a groundbreaking demand-driven rural water supply project. By challenging conventional supply-driven approaches the project has had a large influence: it has shown that approaches that directly empower communities, promote transparency and sustainability and give incentives to NGOs to support communities can work, and can work at scale. Studies assessing sustainability found that 78% of schemes (6–10 years old) were fully functional and sustainable. By the time the second phase ends at the end of 2010, around 1.6 m. rural Nepalis will have benefited from the Board's operations. The challenge for the RWSSFDB will be to roll out its work consistently through local authorities across the country, whilst maintaining the Board's strong record of cost-effective delivery and sustainability.

### Holding service providers accountable

Nepal's policy frame in theory makes local service providers accountable to the water consumers. In practice this does not happen. For example information on budget allocations is not accessible, and service options, their implications and the siting of water facilities and wells, are not always discussed with users. The establishment of District Water User Committees (now 1250 in number and established in 33 districts, co-ordinated by the Federal Association of Water Users (FEDWASUN)), does provide some opportunity for users to provide consumer pressure to improve services. FEDWASUN also provides a lobby for disempowered water and sanitation users at the national level, and supports District Water User Committees in local disputes (for example in budgeting adequately for rehabilitation of water supplies in certain villages —WaterAid 2008). Further attention is needed to institutionalize mechanisms for consumer voice, to educate consumers and to develop a robust evidence base. But Nepal is making progress in an area that is commonly neglected.

## Sector Preparedness Overview

### National Strategies

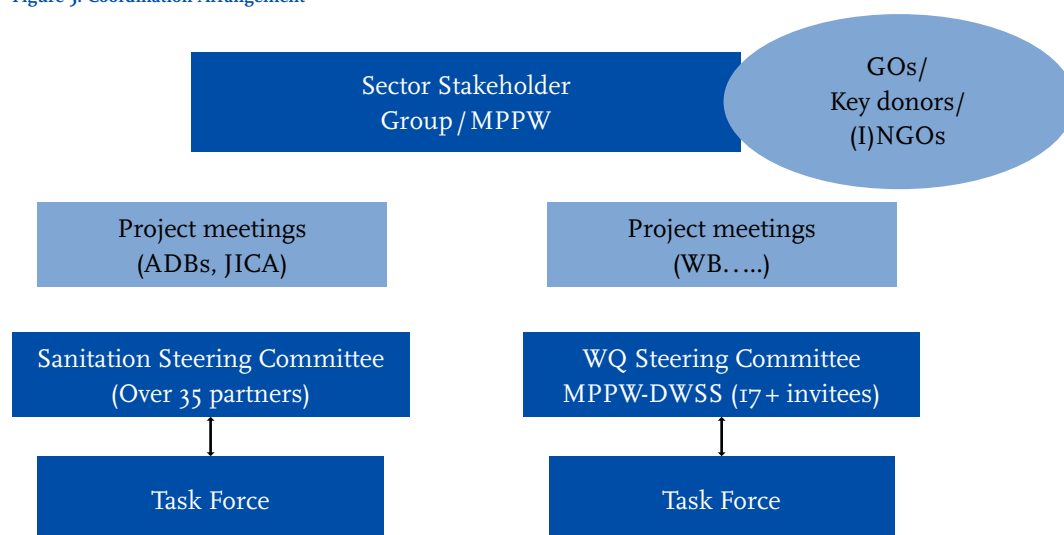
The 2002 PRSP identifies water and sanitation as one of its main medium term strategies. It seeks to increase sector coverage and improve services using decentralized, demand-driven approaches. These approaches are specified in more detail for the rural sector in the 2004 Rural Water Supply and Sanitation Sectoral Strategic Action Plan that emphasizes central government's role in financing, monitoring and policy refinement. Implementation is devolved to local authorities. The urban water policy framework (still not yet finalized) restructures the NWSC, creating three types of entity (a Water Authority, Utility Operators and a National Water Supply Regulatory Board). Assets are to be handed over to municipalities. The policy promotes public-private partnerships in water and wastewater treatment services. In the Kathmandu valley the KVWMSP has taken over service management. MoPPW is presently implementing a three-year interim plan based on existing policies and strategies. A Water and Energy Commission Secretariat (WECS) was established to develop co-coordinating, analytical and policy support functions to the water and energy sectors. It produced a comprehensive Water Resources Strategy and National Water Plan for Nepal.

Most stakeholders generally accept these national strategies and policy framework. But many elements of the policy have not been implemented and there are large gaps between theory and practice. Key handovers of responsibilities, changes in funding flows and co-ordination efforts have either not been implemented or are seriously delayed. The dearth of data and lack of an agreed framework for measuring progress has allowed slippages to occur. Government has lacked the will and leadership to implement the very many good ideas in its own policies.

### Sector Coordination

MoPPW has established a Sector Stakeholder Group (SSG) to increase co-ordination with Water Quality and Sanitation subcommittees. But despite much goodwill between partners, meetings are called irregularly and follow up on decisions is slow. The sector continues to be driven by projects and despite good intentions, sector leaders concentrate on a demanding schedule of project management for the hundreds of sector projects in the country. Sector leaders are not in a position to give strategic direction or control resource allocations. The SSG has expressed the desire to move towards a SWAp and recently undertook a study tour to learn more about SWAp implementation.

Figure 5: Coordination Arrangement



### Key Measures to Improve Co-ordination:

- Establish the capacity to realize the commitment to move towards a SWAp and firm up a schedule of implementation with the main stakeholders (especially with support from the Ministry of Finance (MoF), WB, Asian Development Bank (ADB) and National Planning Commission (NPC)).
- The SSG needs a strengthened secretariat to improve the regularity and outputs of co-ordination meetings.
- A formal mechanism needs to be established to improve NGO representation and accountability on the SSG.

## Institutional Arrangements

Water and sanitation services in Nepal are provided by many agencies. The MoF allocates public sector finance to the sectoral ministries. MoPPW is the lead sector ministry. Working with the NPC, MoPPW has the responsibility to formulate policies, plans and strategies. It has two operational arms: the Department of Water Supply and Sewerage (DWSS) and the Nepal Water Supply and Sewerage Corporation (NWSC).

DWSS is responsible for water supplies in small towns and rural areas. The 2004 RWSS policy sought to shift implementation responsibility to local authorities and communities and restructure DWSS's role to that of facilitation and oversight. In practice, this has not been implemented fully. A proposal supported by ADB has outlined specific strategies for DWSS to take on a facilitating, monitoring, policy advisory role and restructure itself with a reform unit to make this shift.

The Local Self Governance Act (1999) provides for local authorities to plan and manage WSS. The Ministry of Local Development (MLD) is responsible for supporting District Development Committees (DDCs) and Village Development Committees (VDCs) to develop small water supplies and sanitation. MLD has established District Technical Offices (DTOs) to provide technical guidance to local authorities. However the armed conflict has significantly affected the operations of many rural local authorities and prevented the appointment of locally elected representatives into government structures. Community management is the preferred means of rural water supply service management, but studies show that there are major limitations to its effectiveness: both technically and financially. The breakdown rate remains high and community-level financial management remains weak.

NWSC is responsible for water supply, sewerage and drainage services in main metropolitan municipalities and 23 sub-metropolitan areas outside the Kathmandu valley. The Kathmandu Valley water services are now under the Kathmandu Valley Water Supply Management Board and operated by Kathmandu Upatya Khanepani Limited (KUKL)—a company established under a public private partnership. NWSC has been unable to manage services effectively and will hand over its sector assets to municipalities.

Other major stakeholders in the sector include: WB that supports the rural sector through the semi-autonomous Fund Board (RWSSFDB<sup>2</sup>) mentioned above, and the ADB that has invested over \$300 m. in urban and rural water projects in Nepal since 1984 and been a significant partner to DWSS and MoPPW in national sector policy development. It presently supports DWSS implementation of a Community Based Water Supply and Sanitation Project (CBWSSP) and a Secondary Towns Urban Environmental Improvement Project. These two projects are improving services in small towns and urban communities and assisting DWSS to undertake further reforms. The investment banks also support a major source replenishment plan (\$500 m.) developed for the Kathmandu valley, namely the Melamchi and Kathmandu Urban Water Management Projects. Progress is slow and the projects had to be reorganized due to resistance to private sector involvement.

### The Leading UN Agencies Supporting the Sector Are:

- UNICEF that runs a disaster response programme, promotes awareness of drinking water quality and household-treated water, improves sanitation in homes and schools, supports hygiene promotion and handwashing and supports national and district capacity building.
- UN-Habitat supports activities in its Water for Asian Cities Programme, including developing pro-poor approaches for urban water and sanitation, promoting alternative urban water sources for households and promoting innovative urban sanitation approaches.
- UNDP's current programme includes a focus on poverty reduction, governance, environment and sustainable development. It has three projects associated with the water sector: (1) a Public-Private Partnerships for Urban Environmental Services (PPUE) project that helps establish Public-Private Partnerships (PPPs), largely between municipalities and urban communities, by developing systems, enhancing capacity, and supporting project implementation (including bottled water distribution, water service management, public toilet management); (2) a Decentralised Local Governance Support Programme (DLGSP) project supporting local governance and demand and supply sides of basic service delivery, including WSS; and (3) a EENDM unit seeking to enhance sustainable access to natural resources, including water.
- World Health Organisation (WHO) provides technical assistance to MoPPW and Ministry of Health (MoH) and supports water quality improvement programmes. The WSSCC, whose finance is administered by WHO, is preparing one of the first Global Sanitation Fund grants to Nepal, working with NEWAH.

A distinctive feature in the sector in Nepal is the large number of NGOs working in water supply and sanitation. International NGOs (including WaterAid, Plan and Helvetas) play a visible role, commenting on sector issues and supporting local NGOs and local authorities. There are many thousands of local NGOs in Nepal. The Fund Board had applications from over 140 wanting to work in the rural water sector, it finally selected 70 as partners. Several NGOs, such as NEWAH, perform co-ordinating roles, though inter-NGO reporting is not formalized.

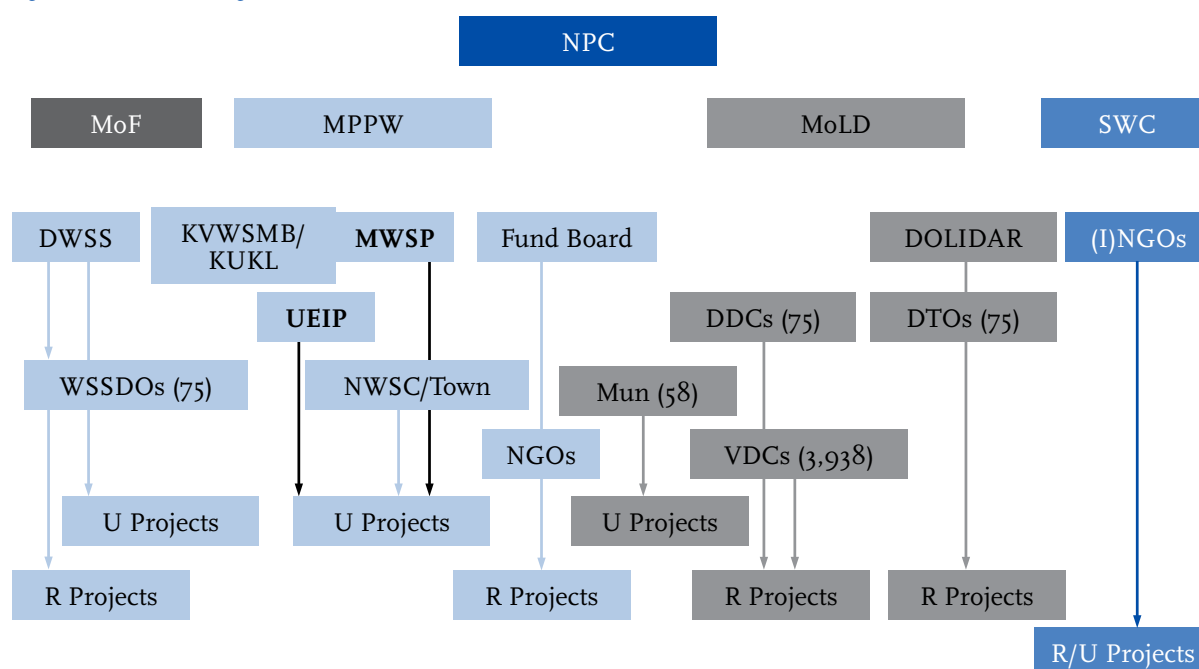
<sup>2</sup> In May 2008, GoN/IDA/WB signed an extension of the US\$41.5 m. RWSSP-II granting it an additional US\$27 m.

In April 2008, Nepal initiated a process to rewrite its constitution. The outcome of this process (which may include creation of a federal state and effecting a significant shift in resources to local authorities) will undoubtedly affect the institutional structure of the country at large, and WSS.

### Key Measures to Improve Institutional Arrangements:

- Accelerate and prioritize processes to achieve a SWAp
- Key steps in SWAp development that will assist in streamlining institutional arrangements include:
  - development of a suite of financing mechanisms, including basket funding, to which all sector donors can subscribe to support a common sector framework;
  - establish performance indicators for a better aligned and harmonized sector framework; and
  - institute a Joint Annual Sector Review with all stakeholders to produce a common set of targets for sector development.

Figure 6: Institutional Arrangement



## Sector Financing

Sector financing is fragmented and poorly tracked. There is no consolidated financial data at national or district levels. The sector has undertaken limited financial research to analyse flows, efficiencies, expenditures, value-for-money or unit costs. No economic analysis of the impacts of investments, or lack of investment, is available.

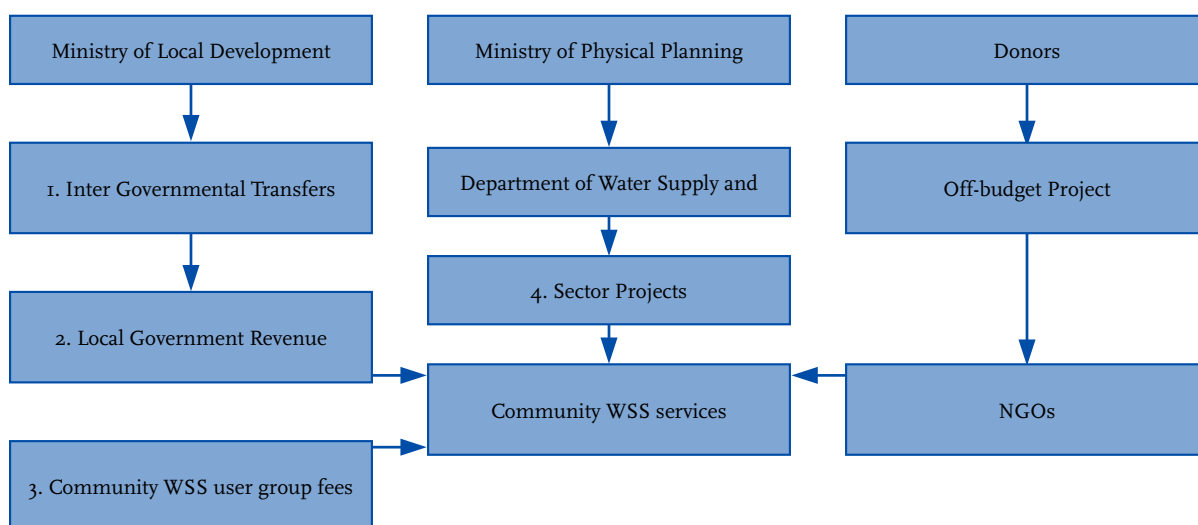
Central government transfers are the main source of finance to local government (estimated at over 75% of income). In general, allocations are low compared to needs, and are reportedly subject to political influence. For example, 40 districts were allocated less than 1% of the budget, whilst some individual districts had 5 or 6% of the budget.

The government has announced a policy of fiscal devolution but this has yet to be implemented. The main source in local government sector finance flows come from the MLD and MoPPW (see next diagram). MoPPW's official policy is that 20% of the budget allocated for water supply may be used for sanitation. In practice it is much lower. However, in the 2009 financial year there was a stand-alone budget allocation for sanitation.

Overall, the sector budget declined during the years of conflict. The funding gap to meet Nepal's planned targets is variously estimated. MoPPW suggests it is US\$46 m. per year, though other estimates are higher. None of these figures takes into account the massive resources required to rehabilitate dysfunctional systems. A WaterAid study in one district found that one in five schemes required complete rehabilitation and over half required major repairs.

67% of the public sector budget is financed through external aid, and a large proportion of sector finance is off budget. The aid is overwhelmingly project specific, the single largest external financiers being the ADB and the WB. An analysis of district budget allocations found that 45% of DWSS district budget allocations went off local budgets to NGOs; and a further 32% was spent directly by DWSS (WaterAid, 2008).

Figure 7: Water and Sanitation Financing Flows



Cost-recovery is the adopted policy, yet revenue streams frequently do not meet operation and maintenance costs. For example, one district study found that tariffs would need to be increased between 80-170% to ensure service sustainability (WaterAid 2008). A 2002 NEWAH study found that a quarter of water payments were not collected. Yet poor and wealthier households, in both rural and urban settings, are willing to pay relatively large amounts to improve their private water services. In urban areas, even those with access to a connection have to invest in storage capacity and household water treatment. Those without access to a tap in urban areas pay vendors for water delivery or for tanker services (with high unit costs per litre). In rural areas, the topography makes water collection from open sources a major physical task.

Several projects employ innovative financing mechanisms, such as revolving funds, but no evaluation has taken place of their effectiveness.

### 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, as well as address operational effectiveness.
- Nepal should examine fiscal transfer and financing mechanisms that encourage efficiency in use of public sector finance and improve targeting, such as smart investments, local investment funds and out-put based aid.

## Sector Monitoring and Evaluation

The sector is characterised by some strong project monitoring systems and weak sector-wide monitoring. There appears to be a significant gap between the evidence from WSS monitoring statistics, to WSS experienced first-hand on the ground. DWSS's publication of WSS inventory should provide a useful baseline on which to build a stronger monitoring system with clear definitions. MoPPW has prioritised improving sector monitoring, developing a sector monitoring strategy paper, and creating a sector monitoring unit, though its analytical capacity remains weak.

Furthermore, financial monitoring is especially poor. Strengthening of the public sector financial administration will be a key factor in leveraging sector finance and making progress towards a SWAp.

### Key Measures to Improve Sector Monitoring:

- A sector-wide monitoring system needs to be developed linked to service access and service functionality.

## Sector Capacity

Improving sector capacity at district and municipal levels is a key action to strengthen sector development. District authorities' capacity is especially weak after the conflict and there is a history of weak local governance. However, the local level is recognised by many agencies as a strategic entry point to improve national development. Most municipalities are operating with limited capacity and reforms having only reached the Kathmandu valley. No recent study exists which has analysed skills and capacity against functions. There is also little formal outsourcing to the private sector for management skills. A model needs to be developed for both small town and municipal service management encompassing financing, outsourcing and oversight to increase capacity and efficiency.

Capacity concerns in local government are one of the reasons that so many sector projects are managed by NGOs. NGO's strengths lie in social mobilization and relatively few NGOs have strong technical skills. Communities manage much of Nepal's rural water supplies. The track record here is mixed. Community management, rather than being considered an interim step towards local government or private sector management, has been relied on far beyond its capability.

### Key Measures to Improve Sector Capacity:

- The sector needs a clear strategy on building municipal and local government capacity, clarifying roles, operationalizing the devolution of resources, aligning TA and skills training at local levels, and encouraging performance-based outsourcing of skills where appropriate.

# Sector Sustainability Overview

This section applies the WSP sustainability scorecard to the sector and provides a quantitative and qualitative assessment of overall sector and sub-sector sustainability. It assesses key success factors related to the country's institutional and financial arrangements. Performance on the 'success factors' is captured by specific questions. The scores range from 0–100%.

## Sector Sustainability Scores

**Sector scores are:**

- Rural and Small Towns Water Supply – 31%
- Urban Water Supply – 37%
- Rural and Small Towns Sanitation and Hygiene – 46%
- Urban Sanitation and Hygiene – 21%
- Overall Sustainability – 27%

Overall sector sustainability is low, the scores brought down by institutional and financial factors, and weak monitoring. Rural and urban water supply and urban sanitation scores were lowered by weak operations, maintenance and general management. Rural sanitation's relatively high score reflects the recent focus on behavioural change and targeted subsidies, but the sub-sector is still constrained its limited financial sustainability.

### Key Measures to Improve Sector Sustainability:

- The policy on sustaining rural and urban water supplies needs to be reviewed and then implemented—with a focus on sustainability of services.
- An overall sector financing strategy and cost recovery system needs to be developed and implemented, along with clear policies and mechanisms to leverage extra funds to address the financing gap, recover operations and maintenance costs, and make plans for the depreciation of water sector assets and system renewals.
- Policy and legal frameworks for urban services need to be developed to enable utilities to become creditworthy and achieve full cost recovery.







Country Sector Assessments: Volume 2

## UNDP GoAL WaSH Programme

Governance, Advocacy and Leadership for Water, Sanitation and Hygiene

# Tajikistan

## National Sector Assessment

MDG Outlook	Sector Preparedness Overview	Annexes
<ul style="list-style-type: none"><li>• Is Tajikistan on the Right Track to Reach Water and Sanitation MDGs?</li><li>• The 'Right to Water'</li><li>• Main Issues to be Addressed</li><li>• Distinctive Achievements</li></ul>	<ul style="list-style-type: none"><li>• National Strategies</li><li>• Aid Coordination</li><li>• Institutional Arrangements</li><li>• Sector Financing</li><li>• Sector Monitoring and Evaluation</li><li>• Sector Capacity</li></ul>	<ul style="list-style-type: none"><li>• International Aid Water Projects and Programmes in Tajikistan</li><li>• Progress of the Programme to Increase the Number of Persons with Access to Potable Water</li></ul>

# 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 but only 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.

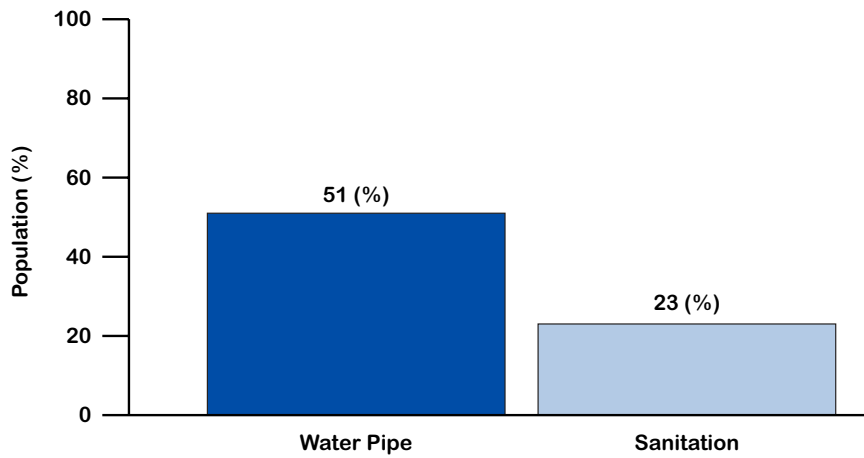
Water supply and sewerage systems are often considered an extension of the political capacity of a local authority, rather than a sector that should be run according to technically sound rules and the norms of efficiency. Local authorities exert control by determining who should be the directors of *vodokanals* (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



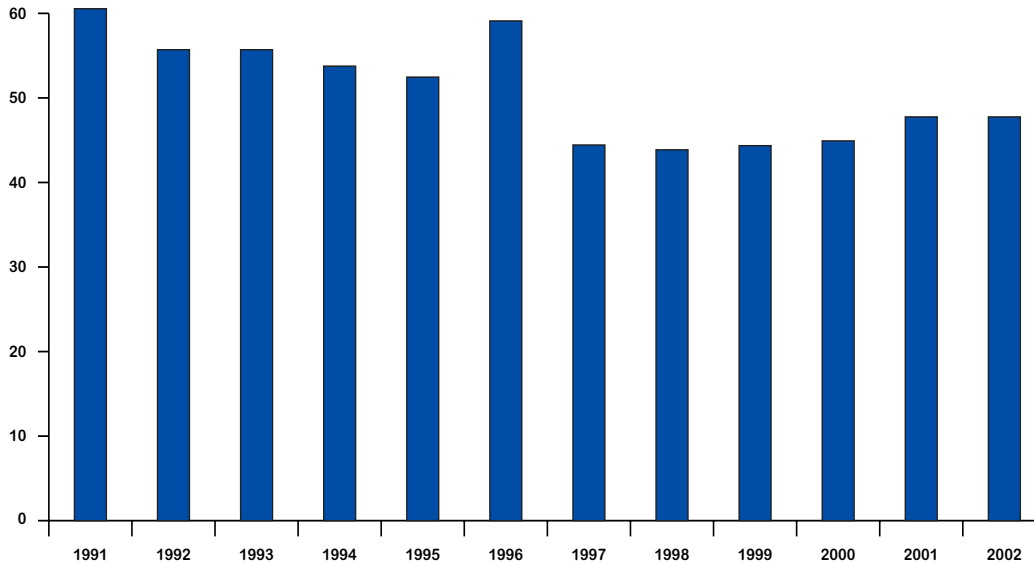
**Table 1: Share of population with access to drinking water (%)**

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

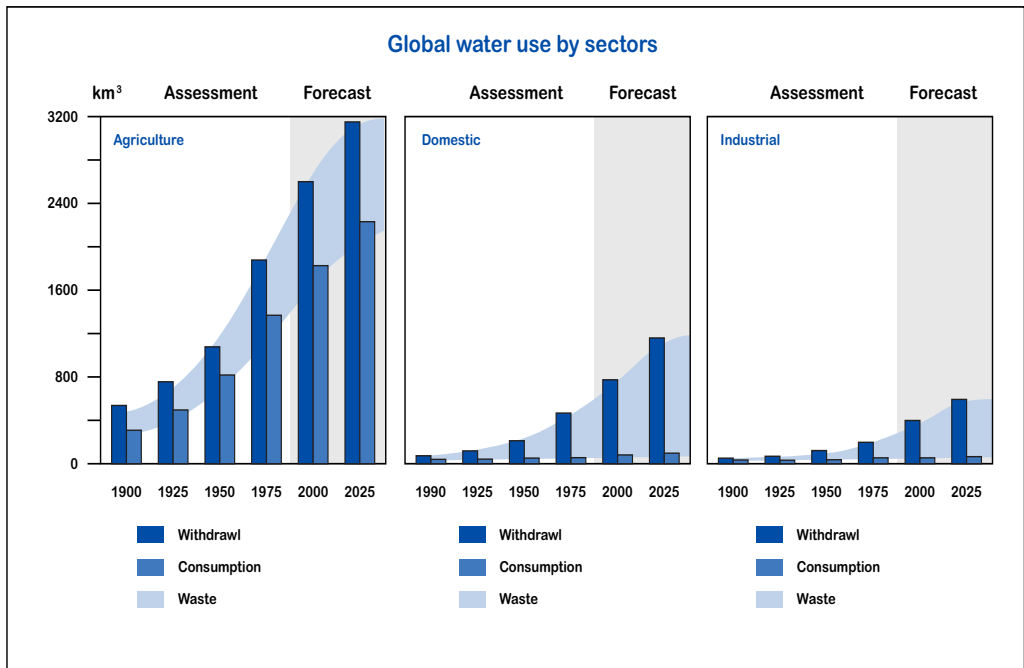
Year	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2008
Tajikistan	52.0	48.5	43.8	43.8	43.7	44.3	47.1	47.3	46.9	47.4	59.0

**Figure 2: Share of population with access to fresh drinking water (%) in 2003**

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)

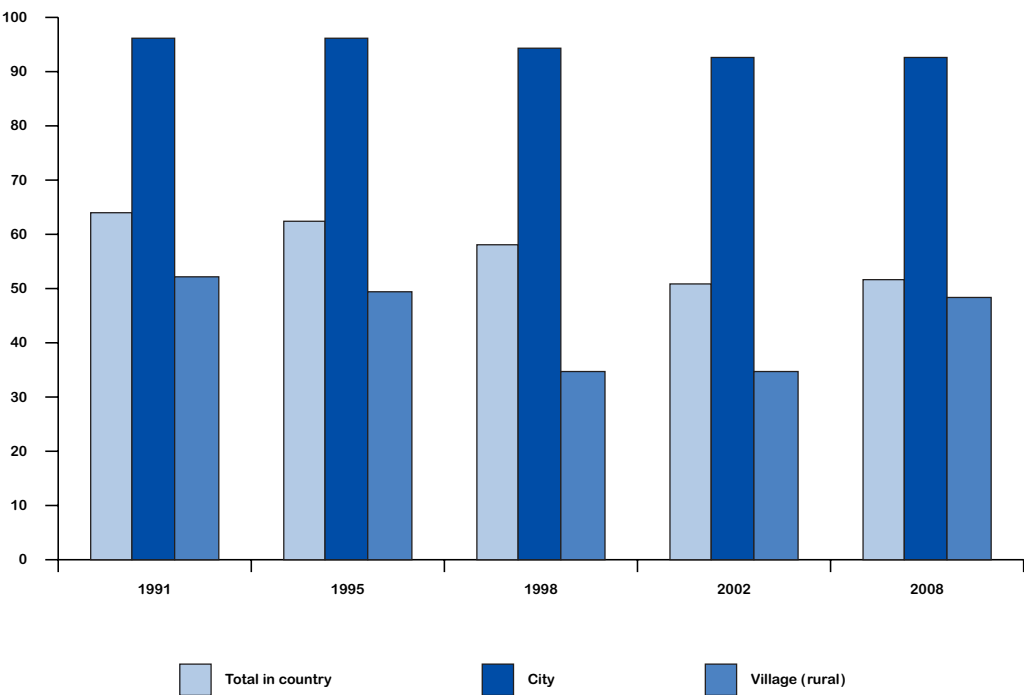
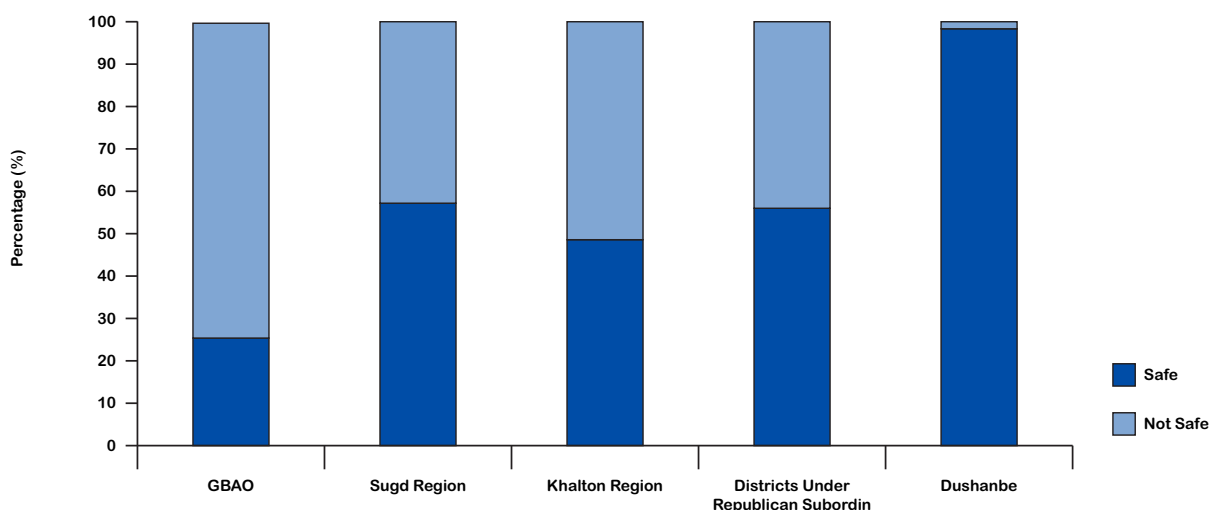


Figure 5: Access to sources of drinking water by regions of Tajikistan (% of total population)

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 m<sup>3</sup> of water available per capita<sup>1</sup>, 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 diseases<sup>2</sup>. Moreover, these figures of access mask the fact that untreated water often flows

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

<sup>2</sup> 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 quality<sup>3</sup>. 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’<sup>4</sup>, 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 water<sup>5</sup>. 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 appropriate<sup>6</sup>. 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) expects to have a recently recruited representative in country by the end of July 2009 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).

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

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

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

<sup>6</sup> 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 law<sup>7</sup>. 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

<sup>7</sup> 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\$380 m.

## 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 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 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 Kommunal:** 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
<b>Total:</b>	<b>74,424</b>	<b>248,967</b>	<b>510,032</b>	<b>998,273</b>

**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 Kommunalni” 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 m<sup>3</sup>. However, tariff increases up to 40 dirams per 1 m<sup>3</sup> 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<sup>3</sup>), 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.

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 Kommunalni” 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 m<sup>3</sup>. However, tariff increases up to 40 dirams per 1 m<sup>3</sup> are being planned.

## 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\$380 m.

Further proposals for the reform of financing community water supplies, arising from the SDC report<sup>8</sup>, 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.

<sup>8</sup> 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

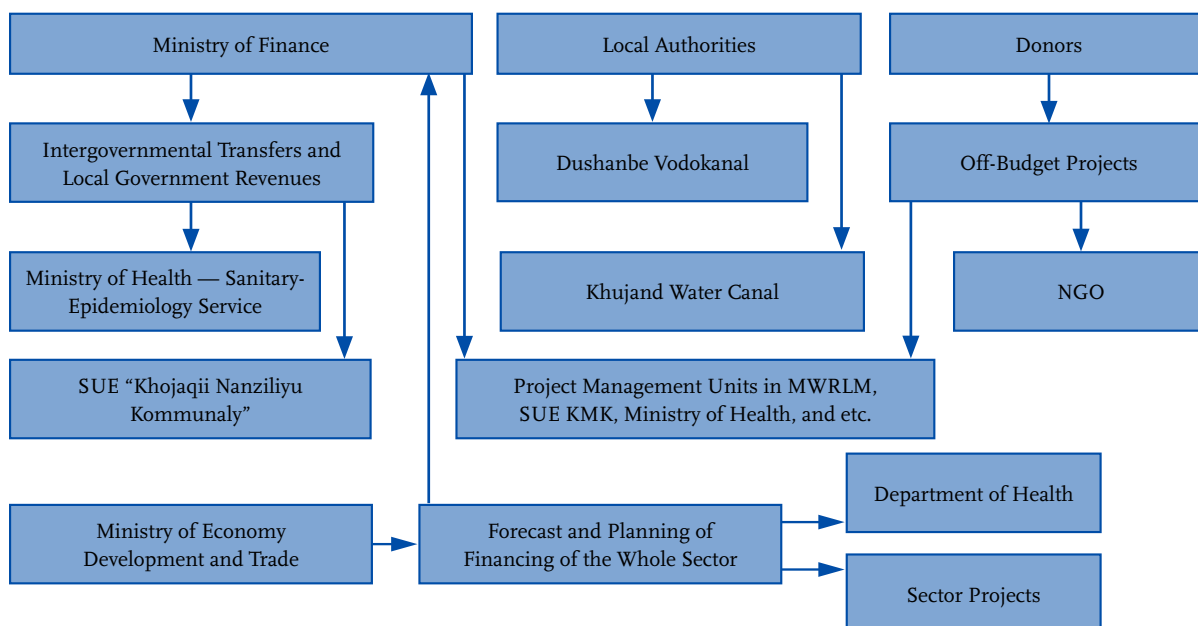
According to a study conducted by the State Statistics Committee in 2005, costs for water supply services amount to 1.5–2% of total expenses. In order to resolve the obstacles preventing more people from accessing clean drinking water, the GoRT approved a programme for 2008–2020 costing 3.3 bn. Tajik 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-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<sup>9</sup>:

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;

<sup>9</sup> *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 communication<sup>10</sup>. 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.

<sup>10</sup> 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*<sup>11</sup>. 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* level<sup>12</sup>, operated by UNDP set up *Jamoat* Resource Centres, to penetrate important messages into rural areas<sup>13</sup>. 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.

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

<sup>12</sup> Local governance body in villages and settlements.

<sup>13</sup> 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		Source of financing (in Thousand Tajik Somoni; US \$1 = TJS 23)							
			Republican Budget		Local Budget		Investments		Economic Activity	
		Execution	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

## Djibouti

<b>ADETIP</b>	Djibouti Public Service Project Implementation Agency
<b>AfDB</b>	African Development Bank
<b>AFESD</b>	Arab Fund for Economic and Social Development
<b>CP</b>	Country Programme
<b>CSO</b>	Central Statistics Office
<b>CSLP</b>	Le Cadre Stratégique de Lutte contre la Pauvreté (equivalent to PRSP)
<b>DEIS</b>	Direction de l'Epidémiologie et de l'Information Sanitaire
<b>DISED</b>	Direction de la Statistique et des Enquêtes Démographiques
<b>GoAL WaSH</b>	Governance, Advocacy and Leadership for Water, Sanitation and Hygiene
<b>INDS</b>	National Initiative for Social Development
<b>IsDB</b>	Islamic Development Bank
<b>JMP</b>	Joint Monitoring Programme
<b>MAEM-RH</b>	Ministry of Agriculture, Livestock Production, and Marine Affairs-Water Resources
<b>MDGs</b>	Millennium Development Goals
<b>MTEF</b>	Medium-Term Expenditure Framework
<b>ONEAD</b>	Djibouti National Water and Sanitation Office
<b>PDSTP</b>	Social Development and Public Works Project
<b>PK 12</b>	A suburb of Djibouti in need of water and sanitation services
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>SNDE</b>	National Water Master Plan
<b>UNDP</b>	United Nations Development Programme
<b>UNICEF</b>	United Nations Children's Fund
<b>WSS</b>	Water Supply and Sanitation Sector

## El Salvador

<b>AECI</b>	Spanish Cooperation Agency
<b>AECID</b>	Ministry of Foreign Affairs and Cooperation
<b>ANDA</b>	National Administration of Aqueducts and Drainage Systems (Administración Nacional de Acueductos y Alcantarillados)
<b>CARE</b>	Cooperative for American Remittances to Europe
<b>CND</b>	National Development Commission
<b>ENRM</b>	Environment and Natural Resources Management
<b>FISDL</b>	Fondo de Inversión Social para el Desarrollo Local (see SIFLD)
<b>FOAGUA</b>	Water Fund
<b>FOCARD-APS</b>	Forum on Potable Water and Sanitation for Central America and the Dominican Republic
<b>FUNDE</b>	National Foundation for Development and the Corporation
<b>FUSADES</b>	Salvadoran Foundation for Economic and Social Development
<b>GoAL WaSH</b>	Governance, Advocacy and Leadership for Water, Sanitation and Hygiene
<b>GTZ</b>	The Deutsche Gesellschaft für Technische Zusammenarbeit
<b>MARN</b>	Ministry of Natural Resources
<b>MDGs</b>	Millennium Development Goals
<b>MSPAS</b>	Ministry of Public Health and Social Assistance
<b>NGOs</b>	Non-Government Organisations
<b>PCI</b>	Project Concern International
<b>RASES</b>	Water and Sanitation Network of El Salvador
<b>SDC</b>	Swiss Agency for Development Cooperation
<b>SIFLD</b>	Social Investment Fund for Local Development
<b>UBN</b>	Unsatisfied Basic Needs
<b>UNDP</b>	United Nations Development Programme
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WSS</b>	Water Supply and Sanitation Sector

## Mongolia

<b>ADB</b>	Asian Development Bank
<b>Ger</b>	‘Ger’ is a tent/house
<b>GoAL WaSH</b>	Governance, Advocacy and Leadership for Water, Sanitation and Hygiene
<b>GoM</b>	Government of Mongolia
<b>MDGs</b>	Millennium Development Goals
<b>MFALI</b>	Ministry of Food, Agriculture and Light Industry
<b>MNET</b>	Ministry of Environment and Tourism
<b>MoF</b>	Ministry of Finance
<b>MoH</b>	Ministry of Health
<b>MRTCUD</b>	Ministry of Road, Transportation, Construction and Urban Development
<b>NGOs</b>	Non-Government Organisations
<b>O&amp;M</b>	Operations & Maintenance
<b>PSFML</b>	Public Sector and Financial Management Law
<b>RWSS</b>	Rural Water Supply and Sanitation Sector
<b>UNDP</b>	United Nations Development Programme
<b>UNICEF</b>	United Nations Children’s Fund
<b>UNJPWSS</b>	The United Nations Joint Programme on Water and Sanitation
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WB</b>	World Bank
<b>WSS</b>	Water Supply and Sanitation Sector

## Nepal

<b>ADB</b>	Asian Development Bank
<b>CBWSSP</b>	Community Based Water Supply and Sanitation Project
<b>DDCs</b>	District Development Communities
<b>DLGSP</b>	Decentralised Local Governance Support Programme
<b>DTO</b>	District Technical Office
<b>DWSS</b>	Department of Water Supply and Sewerage
<b>FEDWASUN</b>	Federal Association of Water Users
<b>GoAL WaSH</b>	Governance, Advocacy and Leadership for Water, Sanitation and Hygiene
<b>GoN</b>	Government of Nepal
<b>IDA</b>	International Development Association
<b>JICA</b>	Japan International Cooperation Agency
<b>JMP</b>	Joint Monitoring Programme
<b>KUKL</b>	Kathmandu Upatya Khanepani Limited
<b>KVWSBM</b>	Kathmandu Valley Water Supply Management Board
<b>MDGs</b>	Millennium Development Goals
<b>MLD</b>	Ministry for Local Development
<b>MoF</b>	Ministry of Finance
<b>MoH</b>	Ministry of Health
<b>MPPW</b>	Ministry of Physical Planning & Works
<b>NDHS</b>	Nepal Demographic and Health Survey
<b>NEWAH</b>	Nepal Water for Health
<b>NGOs</b>	Non-Government Organisations
<b>NPC</b>	National Planning Commission
<b>NWSC</b>	Nepal Water Supply and Sewerage Corporation
<b>PPP</b>	Public-Private Partnership
<b>PPUE</b>	Public-Private Partnerships for Urban Environmental Services
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>RWSS</b>	Rural Water Supply and Sanitation Sector
<b>RWSSFDB</b>	Rural Water Supply and Sanitation Fund Development Board
<b>RWSSP</b>	Rural Water Supply and Sanitation Programme
<b>SSG</b>	Sector Stakeholder Group
<b>SWAp</b>	Sector-wide approach
<b>UNDP</b>	United Nations Development Programme
<b>UNICEF</b>	United Nations Children's Fund
<b>VDCs</b>	Village Development Communities
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WB</b>	World Bank
<b>WECS</b>	Water and Energy Commission Secretariat
<b>WHO</b>	World Health Organisation
<b>WQ</b>	Water Quality
<b>WSP</b>	Water and Sanitation Program
<b>WSS</b>	Water Supply and Sanitation Sector

## Tajikistan

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



## For more information on GoAL WaSH contact:

### Alastair Morrison

GoAL WaSH Coordinator  
UNDP Water Governance Facility at SIWI  
Stockholm International Water Institute

Email: [alastair.morrison@siwi.org](mailto:alastair.morrison@siwi.org)

Tel: +46 8 522 139 99

Fax: +46 8 522 139 61

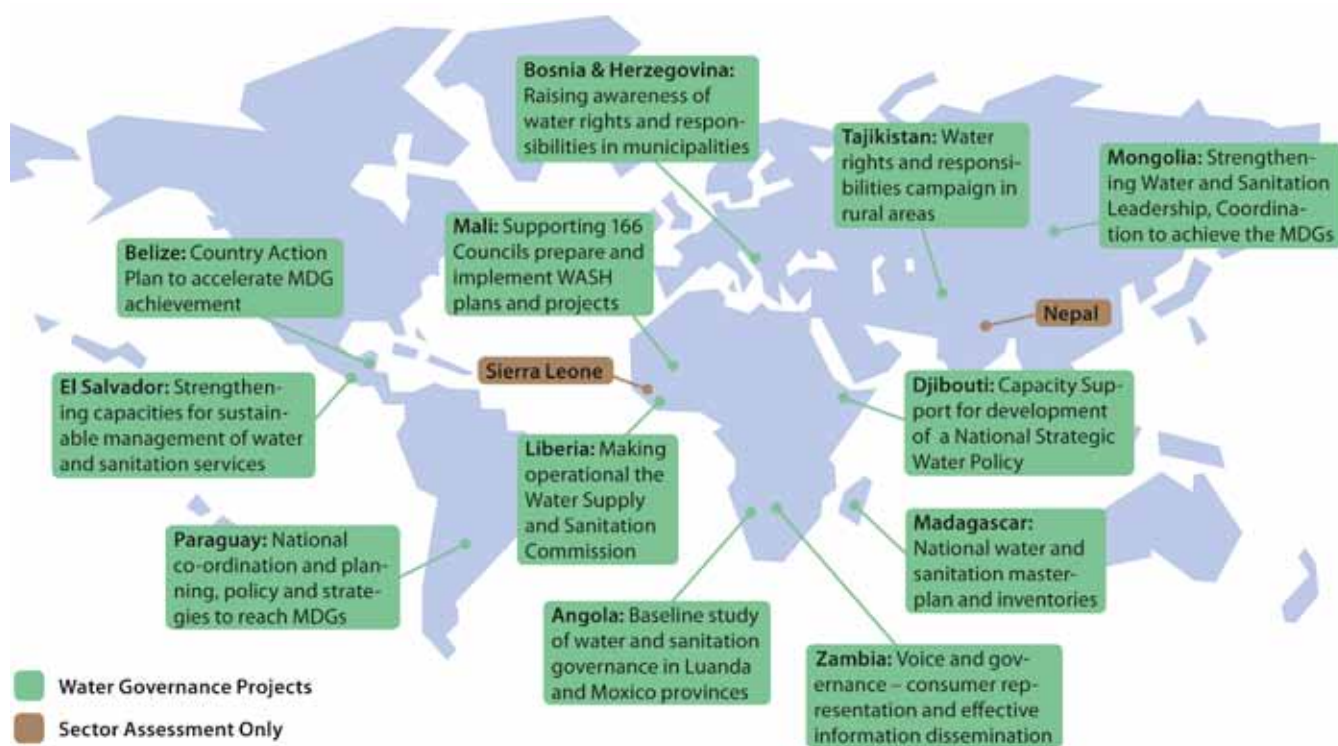
### Piers Cross

Senior GoAL WaSH Development Consultant  
Email: [piers.cross@sanitationandwaterforall.org](mailto:piers.cross@sanitationandwaterforall.org)  
Tel: +27 8 2796 0051

[www.undp.org/water](http://www.undp.org/water)

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## UNDP GoAL WaSH Project Initiatives:





United Nations Development Programme  
Bureau for Development Policy  
Environment and Energy Group  
304 East 45th Street, 9th Floor  
New York, NY 10017

[www.undp.org/water](http://www.undp.org/water)

