

---

## CHAPTER FOUR

# BASIC WATER AND SANITATION

---

### 4.1 Introduction

For purposes of this report, the use of the phrase “provision of basic water and sanitation” should be interpreted as implying provision of water supply and sanitation services to the rural communities.

The Local Government Act (1997) entrusts the responsibility for provision of basic water supply and sanitation services in rural areas and maintenance of the relevant facilities with the Local Governments in liaison with the Ministry responsible for Water Affairs. The Ministry of Water, Lands and Environment, through the Directorate of Water Development is responsible for the strategic planning, regulation and quality assurance of rural water and sanitation interventions to ensure adherence to national policy, strategies, and development targets.

Though rural water coverage has increased considerably over the last decade (from 18% in 1990 to 59% in 2003), significant investment is still required to raise the coverage to meet the national targets (and indeed the MDGs) for 2015.

Basic water and sanitation is a pre-requisite for the socio-economic development of the country since it targets the poorest and most vulnerable members of our society. The burden of water collection falls mainly on women and children who spend most of their productive time walking long distances to collect water, which is often of inadequate quantity and quality to meet their basic human needs! As a consequence, the average water use per capita in most rural areas is by far less than the minimum recommended amount required for drinking, cooking and adequate hygiene. As if that is not bad enough, owing to the long distances travelled, even the little water collected from a would be safe source ends up becoming contaminated by the time it is consumed due to unhygienic water handling and storage practices. In some rural areas basic sanitation still remains a luxury due to poverty, backward cultural practices and low awareness on hygiene and sanitation. As a result, construction of excreta management and disposal facilities in households and institutions (schools, health centres, offices etc.), public places (markets, eating places, parks etc.) is not accorded the deserved priority.

## 4.2 National Goal and Targets for RWSS

### 4.2.1 National Goal

The national goal for Rural Water Supply and Sanitation (RWSS) is:

*“To achieve sustainable safe water supply and sanitation facilities, based on management responsibility and ownership by the users, within easy reach of 100% of the rural population with effective use and functionality of the facilities.”*

### 4.2.2 National Targets

The national target for rural water supply and sanitation coverage is to achieve 77% safe water coverage and 95% sanitation coverage in rural areas by 2015, with an 80%-90% effective use and functionality of facilities.

**Definition of Coverage** - Rural water coverage is defined as the percentage of the rural population with access to an improved water source with in a walking distance of 1.5 Km. For sanitation, coverage refers to the percentage of the population with sanitation facilities in their place of residence

## 4.3 Situation Analysis

The RWSS sub-sector addresses water supply and sanitation service delivery for the rural communities with a population of up to 500 people and rural growth centres with a population of up to 5000 people.

**Box 4.1** below gives the description of improved water supply and sanitation service.

### **Box 4.1: Definition of “Improved Water Supply and Sanitation”**

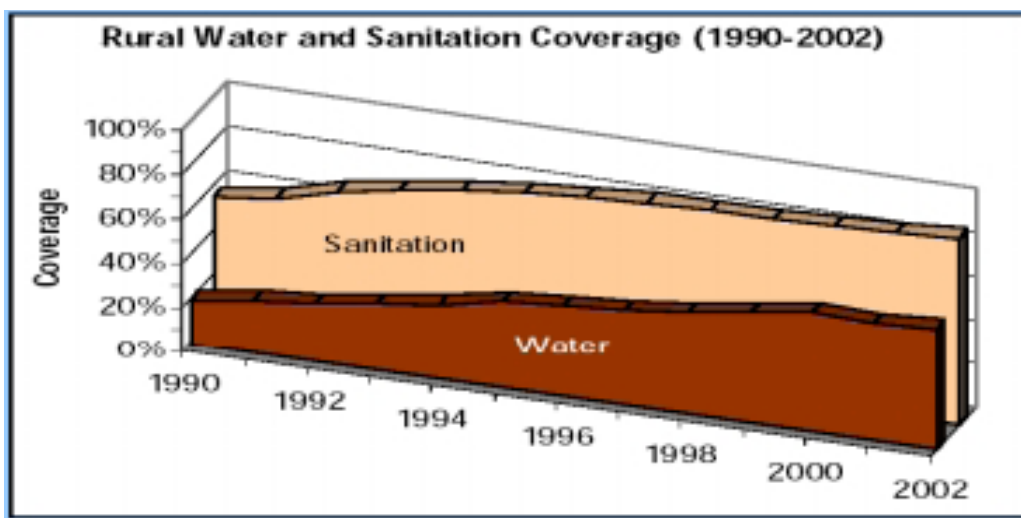
Improved Water Supply Service	Improved Sanitation Service
✓ Household connection	✓ Connection to a public sewer
✓ Public standpipe	✓ Connection to septic system
✓ Borehole	✓ Pour-flush latrine
✓ Protected dug well	✓ Simple pit latrine
✓ Protected spring	✓ Ventilated improved pit latrine
✓ Rainwater collection	

### 4.3.1 Rural Water Supply

#### *RURAL WATER COVERAGE*

The national rural water supply coverage level rose from about 18% in 1991 to 59% in 2003. The trend, over the period 1991 - 2003, for the rural water and sanitation coverage is shown in **Figure 4.1** below.

The overall district service coverage for water ranges from 25%-74% as shown in **Table A.4** in **Annex A**. Two districts (Pallisa and Sembabule) have the lowest coverage, below 30%. 19 districts have water supply coverage between 30-50%, which is below the national average.



**Figure 4.1: Rural Water Supply and Sanitation Coverage Trend**

(Source: DWD, 2004)

#### *PER CAPITA WATER CONSUMPTION IN RURAL AREAS*

The national basic per capita consumption target is 20 liters/day. This is considered to be the minimum quantity of water that a person needs to meet the basic health requirements. Consuming inadequate water contributes to malnutrition, which is a major cause of disease and death. According to the National Surveys conducted in 1996 and 1999, the average rural per capita water consumption was found to be about 13 liters/day, well below the national target!

RURAL WATER SUPPLY TECHNOLOGY OPTIONS

The major technology options adopted for rural water supply include: Bore holes, Gravity flow schemes (GFS), and protected wells and springs. Choice of these options is based on their cost effectiveness and sustainability. The trends of the water services by technology are presented in **Figure 4.2** below. The figure shows that, in the recent years, considerable emphasis has been placed on the construction of technologies with low capital and recurrent costs such as protected springs and shallow wells. Deep wells or boreholes, however, are the most predominant technology in some areas without shallow aquifer potential

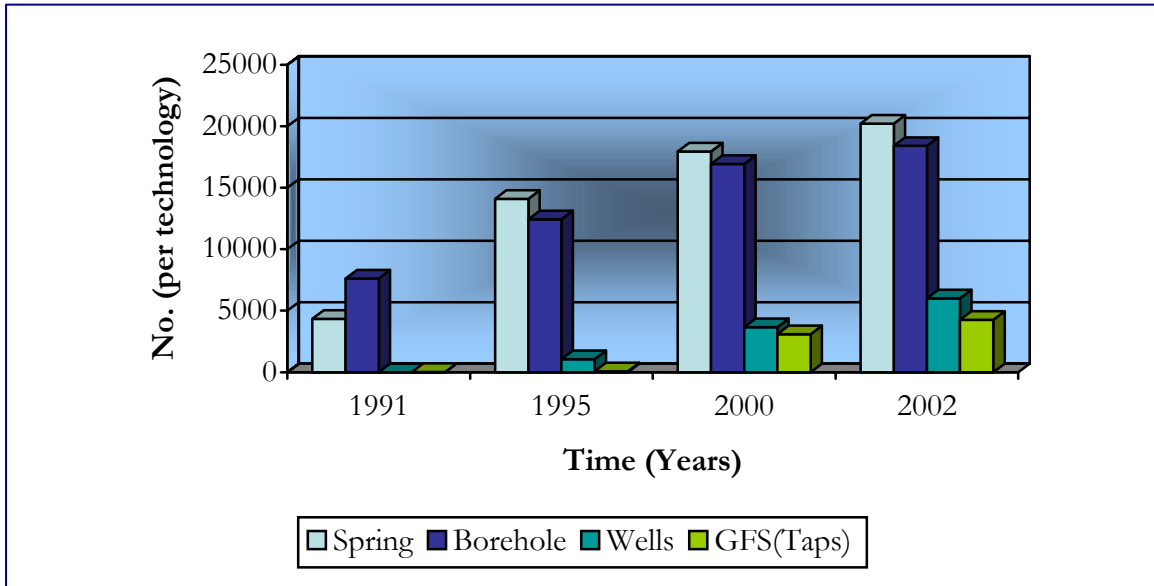


Figure 4.2: Rural Water Supply Technology Options



**Borehole:** One of the commonest sources of water in rural areas

In order to increase on sustainability and functionality of the installed water facilities, the government has adopted a strategy aimed at promoting technologies which are affordable, socially acceptable, potentially sustainable and technically suited to local conditions. These technologies are appropriate for the poor, an example of which is shown in the adjacent picture.

This strategy emphasizes, among other things, improvement of siting techniques for shallow wells, developing rock catchment systems and introduction of ecological sanitation. In addition, rainwater harvesting, especially at household and communal level is being promoted. DWD has commissioned a rain water harvesting strategy study in order to “look into rainwater as a valuable tool for poverty reduction”

#### WATER SUPPLY IN SCHOOLS

One of the major challenges in the water sector is water supply in schools. **Table 4.1** below shows the water supply situation in primary schools, the majority of which are based in rural areas.

**Table 4.1: Water Supply in Primary Schools**

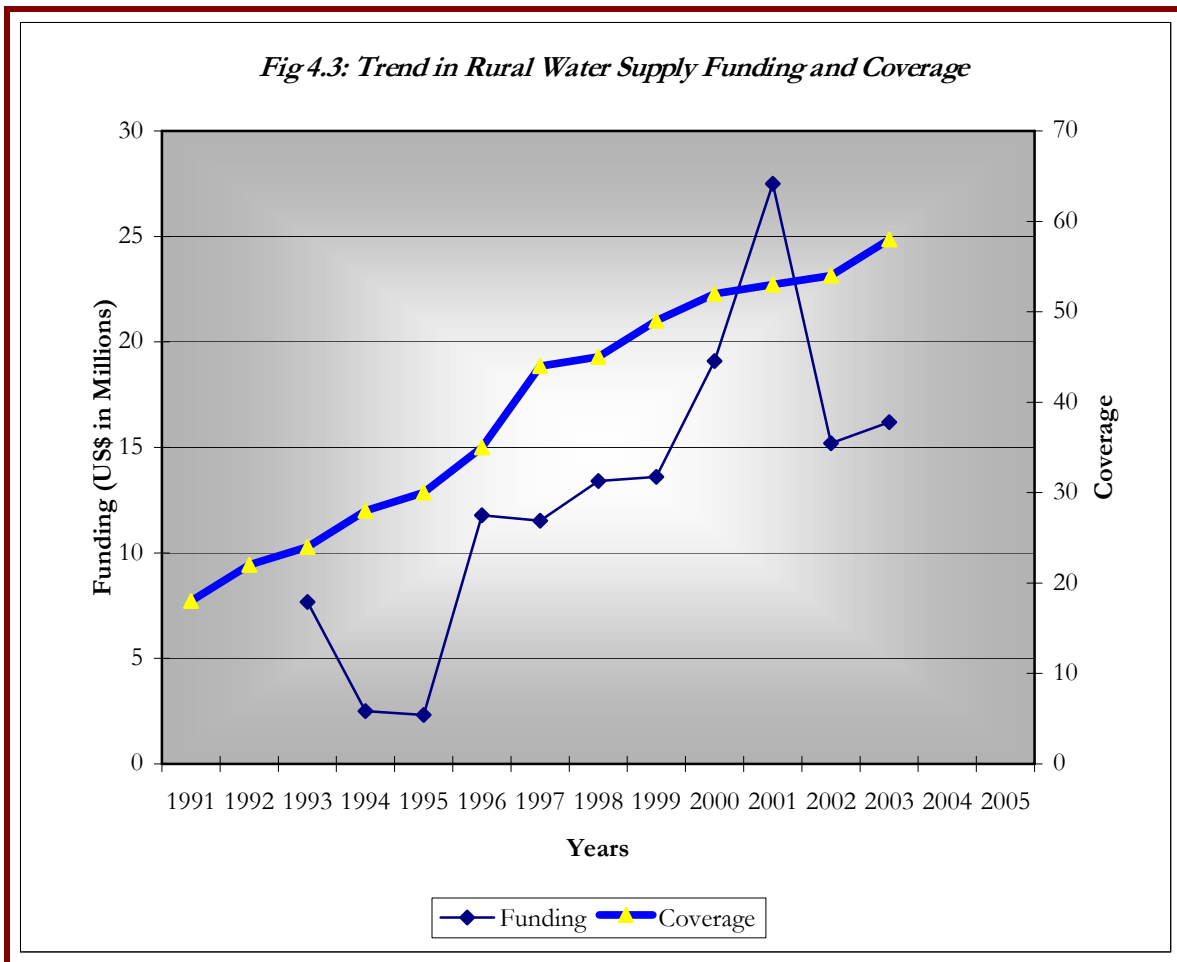
<i>Piped water</i>	1,133	9.2
<i>Borehole</i>	3,587	29.2
<i>Well/Spring</i>	4,718	38.4
<i>Rain water tanks</i>	902	7.3
<i>Lake/river</i>	731	6.0
<i>Other</i>	556	4.5
<i>Unknown</i>	653	5.3
<i>Total (Schools)</i>	12,280	100.0

Source: Uganda Bureau of Statistics, 2003

According to the table, 40% of primary schools have access to piped water or boreholes. Taking these two sources as the most protected and therefore safe water sources, a total of 7,560 primary schools do not have access to safe water.

FUNDING FOR RURAL WATER SUPPLY

**Figure 4.3** shows a comparison between the trends in the funding levels and coverage for the rural water sub-sector. The Figure indicates general increase in funding for the rural water sub-sector over the period 1991 – 2003. However, it should also be noted that despite the significant increase in funding levels, which almost more than doubled over the period 1997-2001, the increase in coverage was only been modest over the same period. This is attributed to a number of factors experienced during this period i.e. significant investment in capacity building for districts, use of more expensive technologies, rehabilitation of non-functioning facilities, and high overhead costs resulting from inadequate technical capacity of both the districts and the private sector.



4.3.2 Rural Sanitation

RURAL SANITATION COVERAGE

Government has put a lot of emphasis on improving household sanitation as one of the key intervention areas to address disease and poverty. The percentage of rural population with

access to improved sanitation increased from 68% in 1991 to 85% in 2002. The government strategy has been to include sanitation as an integral part of all water supply programs in the country. Though still a challenge, sanitation coverage has significantly improved in rural areas and has greatly contributed towards the improved standard of living of people in the rural areas. However, there still remains an issue of unclear institutional arrangements related to sanitation at central level, and that has hampered service delivery efforts by local governments. In order to address this shortcoming, the relevant ministries signed a memorandum of understanding (MoU) on ministerial responsibilities for sanitation/hygiene promotion activities in 2001. The MoU stipulates the following:

- ✓ MWLE is responsible for planning investments in sewerage services and public facilities in towns and rural growth centers;
- ✓ Ministry of Health is responsible for household hygiene and sanitation; and
- ✓ Ministry of Education is responsible for school sanitation and hygiene education.

#### *SANITATION IN RURAL SCHOOLS*

Following the introduction of Universal Primary Education, there was a dramatic increase in primary school enrolment, thereby overloading existing sanitation facilities, with some schools having over 800 pupils per stance, well beyond the recommended national target of 40 pupils per stance. Government responded immediately and initiated school sanitation programs to address this problem. According to a study carried out by UNICEF in 2003, the mean pupil:stance ratio has reduced significantly from a national average of about 300:1 in 1997 to 64:1 in 2002. Improvements in school sanitation have been quite successfully, especially when directly linked with community water supply projects.

#### **4.3.3 Rural Water Quality Issues**

The quality of water consumed in most rural areas in Uganda is poor and falls short of the National Drinking Water Standards. An assessment of shallow wells carried out by DWD in 2002 found 23% of the 123 sampled wells to be contaminated with E.Coli (values above 50/100ml, which is the maximum acceptable value according to the *Provisional National Guidelines* for untreated drinking water). This was mostly attributed to the poor construction and siting of water facilities (i.e. location within densely populated areas like trading centers, or settlements located upstream of water sources and/or close proximity to on-site human excreta disposal facilities like pit latrines, which are predominantly used in the rural areas).

Studies carried out by DWD (RUWASA project, 1990) consistently established that in over 90% of the cases, there was progressive contamination of water from a safe protected or improved water source to the point of consumption at the household. This contamination was mostly attributed to the use of dirty water collection/storage containers.

Water quality management at household level is closely linked to the hygiene practices. It is generally difficult to guarantee good water quality beyond the water source, due to the poor hygiene practices, which result in significant deterioration of the quality of water from the time it is collected from the source to the time it is finally consumed. Most water users are often more interested in aesthetic quality of the water (especially taste and color) and pay little attention to the bacteriological quality. Government is trying to address this problem through intensified hygiene education at community level.

#### **4.3.4 Operation and Maintenance Plan of RWSS Facilities**

Results from a study carried out by DWD in 2002 on the Operation and Maintenance (O&M) of RWSS facilities, indicated that O&M is the weakest aspect in the provision of sustainable rural water supply and sanitation facilities. In order to address this weakness, the study recommended that, as an integral part of the planning process and prior to commencement of any construction, there must be an approved O&M plan for sustainability of the completed facility, i.e. a realistic, viable plan to ensure continuous, reliable operation of the completed facility for at least 8 years.

It is a requirement that the O&M plan be prepared by the community, facilitated by District and Sub-country officials and in particular the DWO.

The Plan deals with issues such as: full coverage of O&M costs by the community for a minimum of 8 years; remuneration of attendants/mechanics; estimated life of capital equipment and parts; availability of spare parts and their costs; maintenance costs; equipment replacement costs and, backup support and services to be provided by the District. Especially important is that if the community cannot cover fully the anticipated costs, there must be identification of who will.

The plan must also include a plan for how the community will increase household latrines coverage and usage to 95 percent within four years after water facilities have been installed. A format for such O&M Plans was prepared by DWD and has been distributed to all local governments.

#### **4.3.5 Technical Support to the Local Governments**

Following decentralization of rural water supply and sanitation service delivery to the local governments, the central government had to come up with a mechanism to provide technical support to the local governments to enable them cope with this new challenge.

This support is being offered through eight Technical Support Units (TSU) located in all regions of the country. Each TSU supports a cluster of 8-12 local governments in a specific region. The TSUs are staffed with highly qualified professionals from the private sector with extensive experience in the provision of RWSS services.

The main aim of the TSUs is to complement the Ministry of Local Government's effort to provide guidance and support to local governments on a demand-driven basis to facilitate the building of local government capacity to handle water and sanitation development.

The TSUs are a temporary support measure and will be phased out as the local government capacity increases.

### **4.4 Rural Water Related Health Issues**

The main health impact of improved water supply and sanitation is measured in terms of the prevalence of water-borne diseases (including cholera, dysentery and intestinal worms). According to a study carried out in 2002 (Katende and Tumwesigye, 2002), diarrhea alone

accounted for approximately 19% of infant mortality in Uganda! It is, therefore, clear that increasing access to water and sanitation services can go a long way in reducing the infant mortality. This is the main reason why government has continued to commit significant resources towards implementation of rural water and sanitation programs in different parts of the country.

#### **4.4.1 The Infant Mortality Rate (IMR)**

According to a study conducted by the Ministry of Health in 2002, the birth and under-five mortality rates in Uganda are still very high (88/1000 live births and 152/1000 respectively). Analysis of relevant data for the period 1995-2000 showed that IMR for households without access to safe water is twice as high as those households with adequate access (MFPED, 2002). In addition, IMR was found to be higher for household with no sanitation facilities vis-à-vis households with a pit latrine or flush toilet.

#### **4.4.2 Diarrhoea Diseases**

According to a study conducted by the Ministry of Health in 2001, diarrhea was found to be more serious in young children than grown-ups and accounted for 6% of all illness cases for children under 4 years in 1995. In addition, diarrhea was seventh in the top ten outpatient diagnoses for patients of all ages in 2001, accounting for 3.9% of diagnosis (HMIS, 2001). Intestinal worms were the third most frequent diagnosis, accounting for 9.4% of diagnoses.

Results from the Ugandan Demographic Health Surveys (UDHS) (UNHS, 1995; UNHS, 2001) show that despite increase in safe water coverage there has been an increase in diarrhea disease prevalence during the period 1995 to 2000. This was attributed to the low sanitation coverage during the same period.

#### **4.4.3 Malaria**

Statistics from the Ministry of Health indicate that Malaria is the leading cause of child morbidity in Uganda. Approximately 70,000 to 100,000 children die every year from malaria, amounting to 30% children's (2 to 4 years) deaths and accounting for 23% of total discounted life years lost. In addition to acute ill health caused by clinical malaria, there is considerable morbidity from reported low level febrile infections from the malaria parasites. Most of Uganda is endemic (50-70% parasite rates in children between 2-9 years) and most of the population experiences moderate to very high malaria transmission. Its impact on social and economic development is significant. According to the National Health Survey (NHS) conducted in 2003, about 55% of the households report sickness every month and spend 3% of their income on health care. The survey also indicated that malaria accounts for 25% of all illness in Uganda. Estimates from the Ministry of Health indicate an average expenditure on malaria related treatment to be as much as US\$300 million annually!

#### **4.4.4 Guinea Worm Disease**

The prevalence of Guinea worm disease in Uganda has reduced significantly from 126,700 cases reported in 1991 to 24 cases reported in 2002, 18 of which were imported. The government is committed to the complete eradication of Guinea worm disease by the end of 2004.

**NOTE** - Due to lack of adequate and systematic data during the period 1990 – 2003, it was not possible to establish meaningful trends in most of the health issues discussed above. It is therefore important that regular surveys are carried out with immediate effect to establish these trends for future monitoring and evaluation.

## **4.5 Challenges and Opportunities**

### **4.5.1 Challenges**

The major challenges affecting the performance of the RWSS sub-sector include:

- a) Inadequate financial resources: The investment requirement for rural water supply and sanitation, to meet the 2015 target, is about US\$ 600- and 950 million.
- b) Inadequate capacity at district and lower levels to plan and implement sector activities. This has consequently resulted in low absorption of funds by the local governments.
- c) Limited Private sector capacity to cope with the increased water and sanitation activities.
- d) Weak coordination and management at both national and local governments level.
- e) Inadequate involvement of local communities in the planning, financing, implementation, monitoring and management of community based water and sanitation developments.

### **4.5.2 Opportunities**

In order to cope with the above challenges, government has taken steps to revamp the water sector through comprehensive policy, legal and institutional reforms aimed at increasing the performance of the sector in terms of outputs but also the efficiency in service delivery.

The opportunities available to ensure this transformation of the water sector include:

- a) Poverty Eradication Action Plan (PEAP) – Which gives high priority to water supply and sanitation as one of the key intervention areas for poverty eradication.
- b) Water Sector Reform – whose objective is to ensure that services are provided and managed with increased performance, efficiency and effectiveness, while maintaining the government’s commitment to equitable and sustainable provision of domestic water supply and sanitation services.
- c) Comprehensive Policy and Legal Framework – which guides the planning, implementation and monitoring of water supply and sanitation activities.
- d) Good governance in both the management of public resources (through multi-annual financial planning and budgeting under the MTEF) committed to water supply and sanitation activities.
- e) Private Sector Participation (PSP) which has brought in expertise and financing from the private sector to support government in the planning and implementation of water supply and sanitation activities.
- f) Commitment from government and development partners for continued support of water supply and sanitation activities.

## 4.6 RWSS Sub-sector Investment Plan

### 4.6.1 Overview

One of the key outcomes of the RWSS sub-sector reform study is the Rural Water Supply and Sanitation Sub-sector Investment Plan for 2000-2015 (SIP 15). SIP 15 is recognized as one of the key government strategies aimed at addressing poverty eradication through provision of improved water and sanitation services to the rural population.

The plan shows that rural water supply is the largest consumptive water user in the country. SIP 15, therefore, focuses on addressing the following key issues:

- (i) Development of institutional capacities at both national and local levels including the private sector;
- (ii) Enhancement of stakeholder participation in the planning and implementation of water supply and sanitation activities;
- (iii) Ensuring sustainability of installed facilities through use of appropriate technologies, promotion of community ownership of facilities, creation of Water User Associations and preparation of comprehensive O&M plans for the installed facilities;

According to SIP 15, the main source of water in the rural areas will continue to be groundwater. The plan also emphasizes sanitation as being a key challenge in the rural areas, especially as far as its impact on the quality of water supply is concerned.

One of the key strategies for implementation of the SIP-15 is the Sector-Wide Approach to Planning (SWAP). The SWAP approach implies that all significant public funding for the sub-sector follows a common approach, and is within the framework of a single sector expenditure plan (SIP-15) and relies on government procedures for disbursement, accounting, monitoring and reporting on progress. The SWAP strategy for the Rural Water and Sanitation Sub-sector was adopted in 2002 and its implementation has been quite successful to-date.

According to the assessment conducted during the RWSS Reform study, the investment needs for the sub-sector for the next 10 years are estimated to total US\$ 950 Million. With this level of investment, it is envisaged that the government would be in position to achieve 100% water and sanitation coverage in the rural areas by 2015. The biggest challenge is how to secure all the required funds.

### 4.6.2 Guiding Principles

The key guiding principles for implementation of the SIP 15 include:

*(a) A Demand Responsive Approach*- Where all support is determined in response to demand by the community. The community, after receiving appropriate information/advice, decide on what type of facilities they want, pay their share of the construction costs, and manage the operation and maintenance of the facilities. The local governments (districts and Sub-counties) will be responsible for influencing and regulating demand and supporting the poor communities.

(b) **Decentralized Implementation** - Where funds channeled directly to districts as conditional grants for implementation, and central government responsible for policy formulation, overall sector coordination and regulation, building local government capacity for service delivery, setting standards, preparing guidelines, monitoring, and sector-relevant research and development. The Fiscal Decentralization Strategy (FDS) is to be introduced in all districts with effect from 2004/05Fy. The FDS strategy implies an even greater degree of devolution of responsibility to local governments.

(c) **Integrated Approach** - Integration of water resources management aspects, liquid and solid wastes, safe-guarding of health and protection of the environment. A “Package“ approach for rural water supply includes construction, installation and also all software aspects associated with the water supply provision namely mobilization, community-based planning and monitoring, hygiene education (including maintaining a safe water chain and promotion of household sanitation), gender awareness/creation, capacity building at user level required for continued use and sustainable operation. In order to ensure integration of all above aspects, the Ministry of Water Lands and Environment (MWLE), the Ministry of Health (MoH) and the Ministry of Education and Sports (MoES) signed a Memorandum of Understanding (MoU) on Ministerial Responsibilities for Sanitation/Hygiene Promotion Activities in December 2001, whereby lead central-level responsibilities in specific sanitation and hygiene promotion are specified as follows:

- MWLE for planning investments in sewerage services and public facilities in towns and rural growth centres
- MoH for household hygiene and sanitation
- MoES for school latrine construction and hygiene education

(d) **Sustainability** – Which is the prime objective of all rural water and sanitation interventions. Sustainability considerations guide technology and design options as well as guide implementation arrangements and capacity building strategies. The main foundation of sustainability is the Community Based Maintenance System (CBMS). The principles behind the CBMS are:

- Users are responsible for all routine operation and maintenance of facilities,
- The private sector will in principle provide all technical services for operation and maintenance – including the provision and distribution of spare parts,
- The role of central government and local authorities is mainly to monitor, regulate and facilitate the performance of the private sector and user communities in operation and maintenance.
- Government supports the cost of major rehabilitation expenses in the interim, in the long term it is expected that communities will increasingly co-finance and ultimately take over these expenses as well.

(e) **Private sector participation** - Where consultants and contractors carry out the design, construction and management of facilities. The contractors include those engaged in construction; supplies of hardware like pump sets and spare parts, other equipment and consumables.

### 4.6.3 RWSS Sub-sector Operational Plan

During 2002, a 5-year Operational Plan (OP5) for the RWSS sub-sector was prepared. The main purpose of the OP5, which covers the period 2002-2007, is to operationalise the 15-year RWSS Strategic Investment Plan (SIP-15). The OP5, which is based on the SWAP principles, will ensure that, within a decentralized service delivery system, all significant public sector funding follows a common approach and in line with government procedures for disbursement, accounting, monitoring and reporting on progress. The key elements of the OP5 include:

- ✓ Detailed investment plan for increasing sustainable and equitable coverage to meet the targets set by PEAP and the SIP15.
- ✓ Common approach for implementation of RWSS activities.
- ✓ Comprehensive Financing Plan detailing the financial requirements for the sub-sector, funds secured and outstanding funding gaps.
- ✓ Detailed capacity building plan covering local governments, central level institutions, private sector, NGOs, and CBOs.

The OP5 has also adopted a number of strategies to help promote household sanitation in rural areas. Building on the fact that provision of water offers an excellent opportunity to stimulate improved household sanitation and hygiene, the OP5 specifies the following minimum requirements as pre-requisites for communities that are to benefit from government funded rural water supply initiatives:

- ✓ All households of community leaders must have latrines that are safe, clean and used before such a community can benefit from the government funded water supply scheme;
- ✓ During the mobilization phase of any government funded rural water supply project, the beneficiary communities are required to increase household latrine coverage by at least 30% as a pre-requisite for continued government funding of the water supply project;
- ✓ The beneficiary community is also required, as part of the 8-year O&M plan for the water supply facility, to outline how they will go about increasing the latrine coverage and usage to at least 95% within the first 4 years of operation of the water facility.

## 4.7 Legal and Institutional Framework

The RWSS sub-sector is governed by the legal and institutional framework for the entire water sector as described in Chapter 3, sections 3.3 and 3.4.

## 4.8 RWSS Programs and Projects

As stated in Chapter 3 the water sector has embraced the Sector Wide Approach (SWAP) to implementation of all water supply and sanitation activities. Government has, therefore, moved away from the “Project based” implementation of activities to a program approach. As a result, all RWSS projects have been phased out and there is now one National Program for the RWSS sub-sector code-named: “Support to Rural Water Program”. All RWSS donor and government funding is channeled through this program.

The ongoing RWSS program and some of the recently concluded RWSS projects are summarized in **Table 4.2** below:

**Table 4.2 – National RWSS Programs and Projects**

<b>PROJECT</b>	<b>DONOR</b>	<b>STATUS</b>	<b>REMARKS</b>
<b><i>Rural Water and Sanitation, East Uganda (RUWASA)</i></b>	DANIDA	Completed (1989-2002)	Covered 10 districts in Eastern Uganda. Involved drilling of boreholes and shallow wells, protection of springs and construction of pit latrines.
<b><i>Water and Environmental Sanitation (WES)</i></b>	UNICEF	Completed (1998-2002)	Covered 35 districts and involved construction of water supply facilities, mobilization and promotion of sanitation and hygiene, and construction of pit latrines.
<b><i>Gravity Flow Schemes (GFS) Program</i></b>	SNV and EU	Completed (1998-2003)	Covered 13 districts and involved construction of Gravity Flow water supply schemes.
<b><i>Rural Borehole Drilling Project</i></b>	Government of Uganda	Completed (????-2003)	Covered several districts and involved drilling of boreholes.
<b><i>Rural Water Supply Project</i></b>	JICA - JAPAN	Ongoing	Covering three districts (Mubende, Mpigi and Kiboga). Commenced in 1998 and involves drilling of boreholes and construction of other rural water supply facilities.
<b><i>Support to Rural Water Program</i></b>	SIDA, DANIDA, DFID, SNV, AUSTRIA	Ongoing	The program covers all districts and is aimed at supporting districts in implementation of water and sanitation activities, through Technical Support Units (TSUs).

#### **4.9 Performance Monitoring, Evaluation and Reporting**

The RWSS sub-sector has adopted the same Monitoring and Reporting framework established for the water sector as described in **Chapter 3**.

#### 4.9.1 Performance Indicators

In assessing the performance of the RWSS sub-sector, specific indicators, both quantitative and qualitative, are used to measure progress made towards achievement of the set targets.

The specific performance indicators for the RWSS sub-sector are given in the **Box 4.2**.

<b>BOX 4.2: Key RWSS Monitoring Indicators</b>	
	Golden Indicators
1	Percentage of the rural population within 1.5 km of an improved water source.
2	Percentage of improved water sources that are functional at time of spot check.
4	Percentage of people with access to improved sanitation (households and schools).
5	Percentage of people with access to hand-washing facilities.
6	Average daily per capita total water consumption.

**Table 4.3** below shows the past, current and projected performance of the RWSS as rated by each monitoring indicator.

<b><i>GOAL: "To achieve sustainable safe water supply and sanitation facilities, based on management responsibility and ownership by the users, within easy reach of 100% of the rural population with effective use and functionality of the facilities."</i></b>					
<b><i>INDICATOR</i></b>	1990	2000	2005	2010	2015
<b><i>Percentage of the rural population within 1.5 km of an improved water source.</i></b>	18%	56%	65%		
<b><i>Percentage of improved water sources that are functional at time of spot check.</i></b>					
<b><i>Percentage of people with access to improved sanitation (households and schools).</i></b>					
<b><i>Percentage of people with access to hand-washing facilities.</i></b>					
<b><i>Average daily per capita total water consumption.</i></b>					

**Table 4.3 – Performance of the Rural Water Supply and Sanitation Sub-sector**

The indicator-based performance monitoring is still a new concept in the water sector and has not yet taken root, thus the empty table above. However, following recognition of the importance and effectiveness of the indicator-based performance monitoring, this methodology has now been fully adopted by the water sector and will form the basis of all future monitoring activities. The indicator-based monitoring will be conducted through annual service delivery surveys and periodic participatory assessments.

## References

---

**MoLG, 1997.** “The Local Government Act, Supplement No.1”.

**Ministry of Water, Lands and Environment, 1999.** “The National Water Policy”.

**MWLE, 1994.** “The Water Statute, Supplement No.7”.

**Ministry of Water, Lands and Environment, 1999.** “The Water Supply Regulations”.

**Ministry of Water, Lands and Environment, 1998.** “The Land Act”.

**Ministry of Water, Lands and Environment, 2001.** “Rural Water and Sanitation Strategic Investment Plan 2000 – 2015”.

**Ministry of Water, Lands and Environment, 2002.** The Water Sector Programme Support Phase 2 Water Sector Capacity Building Component Water Resources Management Sub-component”.

**Ministry of Water, Lands and Environment, 2003.** “The Uganda Water and Sanitation Sector Performance Measurement Framework – Draft Report”.

**Ministry of Water, Lands and Environment, 2002.** “Rural Water and Sanitation Operational Plan: 2002 – 2007”.

**WRMD, 2003.** “Strategy for Decentralization of Water Resources Management – Draft Final Report”.