



A Meta-Evaluation of Projects and Programmes on Community-Managed Rural Water Supply and Sanitation Services in Ethiopia



Research Report 1

**Action Research on Community-managed Water Supply, Sanitation and Hygiene Services
in Shebedino Wereda, Sidama Zone of Southern Nations Nationalities and Peoples Region**



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The cover photo is a portrait of children fetching water from a water point in Shebedino area of Sidama Zone. The picture of the rig was obtained from Norwegian Church Aid.

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Our gratitude goes to all the water and sanitation sector organisations in Ethiopia that provided their evaluation and assessment reports and helped us to write this meta-evaluation. Special thanks goes to Ato Teshome Workie who devoted his time and experience in writing the meta-evaluation and presenting its outcomes to the workshops of the scaling up programme. All members of the National Technical Advisory Group have played important roles in the development of the meta-evaluation. They evaluated drafts and provided valuable information.

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Acronyms and special terms

ACSI	Amhara Credit and Saving Institution
ANRS	Amhara National Regional State
BoFED	Bureau of Finance and Economic Development
CBO	Community-Based Organisation
CDF	Community Development Fund
CSTC	Community Skills Training Centres
EFY	Ethiopian Fiscal Year
EIA	Environmental Impact Assessment
ESHE	Environment, Sanitation and Hygiene Education
ESRDF	Ethiopian Social Rehabilitation and Development Fund
FDRE	Federal Democratic Republic of Ethiopia
GoE	Government of Ethiopia
GoF	Government of Finland
HDW	Hand Dug Wells
HSDP	Health Sector Development Programme
IEC	Information, Education and Communication
KAP	Knowledge, Attitude and Practice
Kebele	Community level administrative structure
KDC	Kebele Development Committee
KHC	Kale Hiwot Church
KPC	Kebele Programme Coordinator
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MoFED	Ministry of Finance and Economic Development
MOH	Ministry of Health
MOU	Memorandum of Understanding
MoWR	Ministry of Water Resources
MTR	Mid-Term Review
NGO	Non-Governmental Organisation
O&M	Operation and Maintenance
OWMERDB (or D)	Oromia Water, Mines & Energy Resources Development Bureau (or Department)
PA	Peasant Association
PIS	Participatory Information System
PFO	Programme Facilitation Office
PRA	Participatory Rural Appraisal
PU	Programme Unit
RHB	Regional Health Bureau
RWB	Rural Water Board
RWS	Rural Water Supply
RWSS	Rural Water Supply and Sanitation
RWSEP	Rural Water Supply and Environment Programme
SanPlats	Sanitation Platform Slab
SDPRP	Sustainable Development and Poverty Reduction Programme
SWOL	Strength, Weakness, Opportunity and Limitation
TA	Technical Assistance
VHC	Village Health Communicators

WAD	Women's Affairs Department
WAO	Water Affairs Office
WatSan	Water and Sanitation
WCC	Wereda Coordinating Committee
WES	Water and Environmental Sanitation
WGT	Wereda Gender Team
WMB	Water Management Board
WMERDB	Water, Mines & Energy Resources Development Bureau
Wereda	Administrative district within a region
WPC	Wereda Programme Coordinator
WRMP	Water Resources Management Policy
WSDP	Water Sector Development Programme

Executive summary

This meta-evaluation is based on documents relating to rural water supply and sanitation projects and programmes covering almost every region of Ethiopia. These projects and programmes have been implemented and financed by various organisations. Most of these projects have been evaluated by external evaluators and assessed internally by a group of experts. They include schemes on hand-dug wells with hand pumps, springs with hand pumps or motorised pumps, springs with gravity flow, drilled wells with motorised pumps, traditional pit latrines and pit latrines with SanPlats. Most of the documents are evaluation reports; some are completion or terminal reports.

Documents from projects and programmes have been analysed against eight headings: universal coverage and sustainability, enabling environment, institutional aspects, financial considerations, social equity, the environment, monitoring and learning, and technological principles.

Active community participation has been observed in some water supply and sanitation schemes, but in the majority of the projects, involvement of communities is minimal. In a large number of community WASH projects the involvement of women is very low. The sustainability of most schemes is also rather weak, due to lack of strong community-based management. Consequently, a considerable number of schemes are non-functional.

Projects in which water committees have more women than men show greater efficiency and sustainability than those with more men than women. This has become a good indicator of success and demonstrates that women take the main responsibility for household water. One community-managed project (Dalocha) has only women as members of the Water Board and water committees and women as water sellers at water points. This project has shown striking success with good coverage and better sustainability.

A Meta-Evaluation of Projects and Programmes on Community-managed Rural Water Supply and Sanitation Services in Ethiopia

1. Introduction

"**Water for People, Water for Life**" is the slogan of the UN World Water Assessment Programme. Without safe drinking water, humans find it difficult to survive. Water-borne diseases are among the most common causes of illness and death. Improved sanitation facilities can impact remarkably on people's lives, in terms of safety, privacy, convenience and dignity, especially with regard to the lives of women. In fact, the provision of water schemes often has its greatest impact on the lives of women who, in almost all societies, shoulder the responsibility for domestic water supply and sanitation.

Most decisions that affect communities are taken by men. Well-planned water and sanitation schemes have been shown to be a good way of breaking this gender demarcation, allowing women to exercise authority within a community and empowering them to make decisions affecting the community.

Box 1: MDG and Vision 21 Water Supply and Sanitation Targets

- Under the Millennium Development Goal 7 (Environmental sustainability), Target 10 seeks to “halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation”.
- MDG Target 10 was based on Vision 21 Targets which also emphasise that people need adequate quantities of affordable and safe water, and hygienic sanitation facilities.
- Vision 21 also set a target to provide water, sanitation and hygiene for all by 2025.

The UN established a number of Millennium Development Goals (MDGs) that have become the key international development targets. It is the view of many people that such targets remain helpful in assessing the magnitude of the task ahead in meeting the water and sanitation needs of the poor. However, the report Vision 21: “Water for People”, stresses the indicative nature of targets and the need to consider them in a local context.

The best chance to try to achieve these tasks is to empower the communities to manage, own and actively participate in the identification, planning, construction, operation and maintenance (O&M) of rural water supply and sanitation schemes.

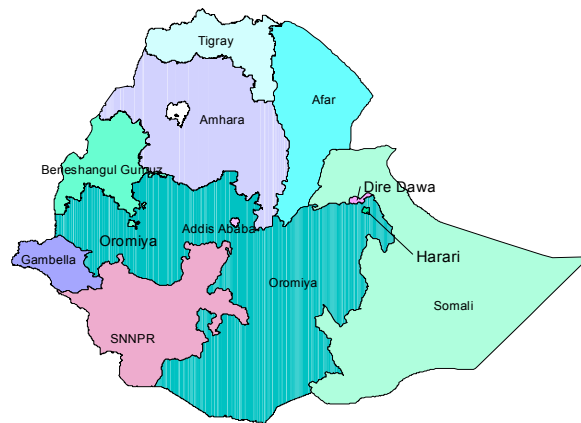
Many water supply and sanitation schemes have been implemented by different organisations in Ethiopia and several have been evaluated. The results indicate that certain models and practices have been followed in providing rural water supply and sanitation services. The purpose of undertaking meta-evaluation was to analyse the different community management models and experiences in water supply and sanitation and to learn the best practices that could be adopted to form the basis for action research. This meta-evaluation has been compiled mainly by analysing water supply and sanitation schemes against eight thematic areas of scaling up of rural

water supply. These are universal coverage and sustainability, enabling environment, institutional aspects, financial considerations, social equity, the environment, monitoring and learning, and technological principles.

We believe the results of this undertaking will help to strengthen social, institutional, technical and environmental aspects and support mechanisms for community-managed rural water supply and sanitation services. This will help to provide sustainable services and accelerate coverage in meeting the MDGs.

2. Programmes and Projects Used for Meta-Evaluation

Documents of several projects and programmes financed by different organisations and implemented in various parts of the country have been collected and examined (Table 1). Most of these projects and programmes have been evaluated by external evaluators and assessed internally by a group of experts. These projects and programmes cover almost every region of the country (Picture 1). The schemes include hand-dug wells with hand pumps, springs with hand pumps or motorised pumps, gravity flow springs, and drilled wells with motorised pumps. Most of the documents are evaluation reports, while some are completion reports. All of these reports have sections dealing with "Lessons Learnt", and contain "Conclusions and Recommendations".



Picture 1. Location of some of the evaluated water supply projects in Ethiopia

Table 1. Locations, implementers and evaluators of evaluated projects and programmes

No.	Project/ Programme name	Project location	Project implementers	Year of implementation	Beneficiaries	M&E	Project evaluators	Year of evaluation	Remark
1	Rural Water Supply and Environmental Programme Amhara Region (RWSEP)	•18 weredas in Amhara Region	•MoFED, GoE •BoFED, Amhara Region •MoFA, GoF	<ul style="list-style-type: none"> • 1994–1998 • 1998–2002 • 2002–2006 	People of 18 weredas; 1.4 million	--	5 experts from Ethiopia and Finland	2005	Mid-term review
2	Rural Water Supply and Sanitation Model Projects in Five Regions Financed by ESRDF	<ul style="list-style-type: none"> •Amhara Region •Benishangul Gumuz Region •Dire Dawa City State •Harari Region •SNNPR; 9 projects in 5 regions 	<ul style="list-style-type: none"> •Water Bureau, Regional Gov. •ESRDF •NGO, Water Action 	1996–2004	About 35,000 people in regions where schemes are located ---	Staff appraisal report WB, 1996-1998	Eyob Management Consultant (EMC)	2004	
3	Social Infrastructure and Rural Water Supply Projects supported by ESRDF	•Throughout the country	<ul style="list-style-type: none"> •ESRDF •Communities •Regional Water Bureaux 	1996–1998	About 2150 people per scheme	---	NEK-International Consultancy	2000	Impact assessment
4	RWS sub-projects financed by ESRDF	<ul style="list-style-type: none"> •Amhara region ... 21 projects •Benishangul-Gumuz ... 4 proj. •SNNPRS 21 proj. •Tigray ... 4 proj. 	<ul style="list-style-type: none"> •ESRDF •RWMED Bureau •zonal offices •Wereda offices •Local communities 	1997–1998	About 76,050	---	Continental Consultants	1999	Construction and O & M Evaluation
5	Integrated Water and Sanitation Programme	•Amhara, Oromia and Southern Region	<ul style="list-style-type: none"> •Kale Hiwot church •Local communities 	<ul style="list-style-type: none"> ○ Approx 18 years ago ○ New since 1998 		---	UNESCO & the Institute of Water Education	2002	Mid-term evaluation

Table 1. Continued

No.	Project/ Programme name	Project location	Project implementers	Year of implementation	Beneficiaries	M&E	Project evaluators	Year of evaluation	Remark
6	Rural Water Supply and Sanitation demonstration Project in Amhara Region	3 weredas in Amhara Region Fagita Lekoma Farta Mecha,	<ul style="list-style-type: none"> • Finn Consult • WMERDB • Local people 	2000–2002	116,400 people in all 3 weredas	--	ABD consultant Finn consultant	2002	
7	Rural Water Supply and Sanitation Demonstration Project-Tigray Region	Samre wereda, Maichew zone Ganta Afeshum wereda, Adigrat zone, Tigray Region	ERDB eda Water Office Local communities	2000–2002	About 5000 people	---	ABD consultants	2002	
8	UNICEF 2002 - 2006 Country Programme RWS Project ESHE Project GWE Project	5 regions Afar, Somali, Benishangul-Gumuz, Gambella, SNNPR	Regional Sector Bureaux Regional Offices Local communities	2002–2004	People of 5 regions	---	MS Consultancy	2004	WES-Mid-term review
9	Abomsa Water Supply Project	ABOMSA Town	Dr. Ingran Johnsson, SEAD zonal Office, Asela, Arsi	1986	8,000	--	Dr Ingran Johnsson and Aberra Mekonnen	1987	Evaluation
10	Hitosa and Gonde-Itaya Water supply Schemes	Hitosa Gonde-Itaya Rural Villages	Water Aid Local communities Water Action	1996–2000	About 65,000	2000	Evaluation team	2000-2001	Terminal evaluation
11	Dorcas Aid Ethiopia Selale Rural Water Supply Project	Derba-Suluta Kuyu Were Jarso weredas, N. Shewa zone Oromiya region	ODPPB OWMERDB Local communities	1994	5000 people	--	WMERDD DPPD DAIE	2002	Terminal evaluation
12	Potable Water Supply and Sanitation Project; CVM and NCS Joint Programme	Guto Wayou, Diga Leka and Sibu Sire weredas, E. Wollega zone, Oromiya Region	OWMERDB zonal office ODPPD Local communities	2002	3089	--	Team of experts from DPPD WRDO	2003	Terminal evaluation

Table 1. Continued

No.	Project/ Programme name	Project location	Project implementers	Year of implementation	Beneficiaries	M&E	Project evaluators	Year of evaluation	Remark
13	Tseged-Armachio Water Supply Sanitation and Hygiene Promotion Project	○ Tsegede and Tach Armachio weredas, North Gonder Zone, ANRS		2002–2004	The 2 wereda communities	---	Abebaw Tezera, consultant		
14	Integrated Water Supply, Sanitation and Hygiene Promotion Project	• 5 weredas in N. Shewa, S. Wello and N. Wello	<ul style="list-style-type: none"> • ORDA • Communities • Water Aid 	1998–2003	The 5 wereda communities	--	Siseraw Dinku, consultant	2004	
15	Water Development and Sanitation Project	○ 10 weredas, Bale zone, ○ Oromia Region	<ul style="list-style-type: none"> ○ Bale zone water office, ○ Communities, ○ NCA/E 	1997–2000	110,853 people	--	A team of experts from ODPPB, OWMERDD, ZDPPD and NCA	2001	
16	Child Health Development, Addis Ababa and Lalibela Programme Units	Addis Ababa and Lalibela	<ul style="list-style-type: none"> ○ Plan - E ○ Sub-City Adm., ○ Addis Ababa ○ Wereda Adm., ○ Lalibela ○ Local communities 	1999–2003	Local communities in Addis Ababa and Lalibela	---	<ul style="list-style-type: none"> • MS Consultancy • Rainbow Management & Development Consulting Group 	2003–2004	
17	Robe-Melliyu Water Supply Project	Sinana Wereda, Bale Zone Oromia Region	<ul style="list-style-type: none"> • Local communities • OWRB • Water Aid • Water Action 	1996 –2001	70,000 people	--	Experts from Water Aid & independent consultant	2004	

3. Major instruments used to carry out the meta-evaluation

This meta-evaluation assessed projects by studying documents from each water supply and sanitation project or programme and assessing them under the following headings:

- universal coverage and sustainability
- enabling environment
- institutional aspects
- financial considerations
- social equity
- the environment
- monitoring and learning
- technological principles

3.1. Universal coverage and sustainability

Rural water supply and environmental programme

The Rural Water Supply and Environment Programme (RWSEP) in Amhara Region is a regional programme that has been supported by the Government of Finland (GoF) since 1994. Phase I, 1994–98, focused on capacity building at regional level; Phase II, 1998–2002, focused on capacity building at zone and wereda levels; Phase III (current) supports further decentralisation to community level.

The programme includes spring development, equipping hand-dug wells with hand pumps, constructing water points; VIP pit latrines, household demonstration latrines, school and clinic latrines, hand wash tanks and basins.

The RWSEP covers 18 rural weredas in Amhara Region, where average water supply coverage at the end of 2002 at sub-kebele (community) level was 59% (minimum 23%, maximum 100%). At kebele level, average coverage was 43% (minimum 16%, maximum 75%). Coverage has been calculated based on actual population figures in each kebele and sub-kebele. Sub-kebele rural water supply coverage depends on for how long a wereda has been included in the programme. According to reports from weredas at the end of Phase II, only 4% of the water points constructed under the project were non-operational due to construction mistakes.

Of the 82 school VIP latrines planned in Phase II, 60 (73%) were constructed and all are in use. During Phase II, 9,650 household latrines were constructed by households. This represents a 6% increase in sanitation coverage at sub-kebele level during the RWSEP intervention.

Despite aggressive sanitation promotion, household demand for latrines has remained low. Traditionally, the sanitation and hygiene promotion has been the sole responsibility of the health sector. However, when incorporated into the sectoral performance evaluation system, as in this project, sanitation and hygiene promotion becomes the responsibility of all stakeholders. The latest results from weredas indicate that remarkable results have been achieved when sanitation and hygiene promotion becomes the responsibility of all stakeholders led by wereda administrator.

Planning, decision-making, and implementation processes have operated at all levels: community, kebele, wereda, zone and region. Implementation co-ordination was also decentralised and

functioned at all levels, and communities played a pivotal role. The community planning process, an application of Participatory Rural Appraisal (PRA), has driven implementation of a variety of developmental activities at kebele and sub-kebele levels. These activities are supported and co-ordinated by wereda-based personnel who turn to zone and region personnel for higher-level support as needed.

Robe-Melliyu Gravity Water Supply and Sanitation Project

The Robe-Melliyu project consists of 3 springs, 15 reservoirs of various size from 3 m³ to 150 m³, 56 km of transmission pipeline, 91 km of distribution pipeline, 80 water points, 16 VIP latrines, 1,109 traditional pit latrines and 760 refuse disposal pits.

The project was carried out through the joint efforts of communities, the Government, Water Action and WaterAid Ethiopia. It has evolved into a community-owned and managed scheme serving 70,000 rural and urban populations in 13 villages, two small towns and Robe town in Bale Zone. Although the scheme still faces challenges, broadly-speaking, it is considered a success. Everyone has access to safe water and the system is taken to be sustainable. The most interesting and surprising feature of the scheme is that the rural community is selling water to three urban centres. The active role played by the community in managing the scheme (Picture 2) is the foundation of a sustainable supply of water to the rural and urban populations of the area. (Community management details are cited under the Institutional Aspects.)



Picture 2. Robe Melliyu community discussing about their water management

Photo credit: WaterAid Ethiopia

Dalocha Water Supply Scheme

The Dalocha Wereda is in the Southern Region. The project consists of a spring and 6 boreholes, 7 reservoirs with a capacity ranging from 50 m³ to 300 m³, 70 km of pipeline and 32 water kiosks (water points). The Dalocha Water Supply Scheme was constructed in 1994 with the assistance of Action Aid Ethiopia and the full participation of the community. The water scheme is fully managed by the community (details can be found under the Institution section). The community now gets a continuous water supply (Figure 3) in the mornings and afternoons from water kiosks. Sustainability has been maintained, as shown by a cost recovery system, under which beneficiaries have agreed to pay service delivery fees to keep the water supply system working. The community is the sole caretaker of the whole system, without whose total commitment, the water system would not have been sustainable.



Picture 3. Women and children fetching from water supply scheme

Hitosa and Gonde-Iteya Water Supply Schemes

In Hitosa, the project physically consists of a gravity flow spring development system with 30 km of transmission pipeline and 109 km of distribution pipeline. In Gonde-Iteya, the project consists of a gravity flow spring system with 46 km of transmission pipeline and 112 km of distribution pipeline.



Picture 4. Children fetching water from Hitosa Water Supply Scheme
Photo credit: WaterAid Ethiopia

There are two sources of water people in Hitosa and Gonde-Iteya use: traditional sources like rivers, springs, and ponds and tap water sources. In Hitosa and Iteya towns, 100% of the people use tap water, whereas in Gonde 95% of the people use tap water and 5% use traditional sources. Traditional sources are used for washing cloths and watering animals. The fact that most people use tap water for drinking, bathing and food preparation indicates that people are taking care for their health, which can be associated with the benefits of hygiene and sanitation programmes.

The overall average daily per capita consumption of tap water in surveyed villages is 9 litres in Hitosa and 8 litres in Gonde-Iteya. The difference is partly explained by the fact that some villages in Gonde-Iteya have more access than villages in Hitosa to traditional sources such as rivers, springs, ponds and tap water. Communities manage their own water supply schemes and sanitary facilities. In Hitosa, there is Water

Administration Office, whereas in Gonde-Iteya no independent water administration office exists. Each community in Gonde-Iteya has a WASH committee whose members carry out routine operational activities alongside employed staff. The water service delivery has been noted as sustainable.

3.2. Enabling environment

Rural Water Supply and Environmental Programme

The decentralisation policy of the Government of Ethiopia (GoE) defines the roles and responsibilities of the federal and regional governments and of the wereda administration. Economic management and administrative structures have been decentralised to create an enabling environment for people to participate in economic, political and social developments and for greater independence for regions to administer their development.

The overall aim is to stimulate and facilitate bottom-up initiatives in development planning and implementation. The policy of Amhara National Regional State (ANRS) provides for creating an enabling environment for participatory development. Participation, as used in the ANRS, means that people are closely involved in the economic, social, cultural and political processes that affect

their lives. The essence of participation is empowerment, i.e. people have continuous access to decision making and power.

There are elected councils at regional, wereda and kebele levels. However, as decentralisation and devolution is a process that will take time to mature, regional councils are still dependent on the central government for their capital and recurrent budgets, and for negotiations about international development assistance, limiting their decision-making powers. Wereda and kebele councils as yet have little management experience and limited human and financial resources, which slow the rate of change. The process of decentralisation, especially the degree of independence at wereda level, needs continuous strengthening. National and regional policies and strategies emphasise popular community participation in all aspects of development efforts. Sectoral policies promote decentralisation, bottom-up planning, collaboration between sectors and integration of services. The policy environment has been an essential and supportive factor in implementing RWSEP, which in turn has contributed to policy development and implementation.

The Rural Development Policy clearly shows that the country is in a state of low economic and social development. The economic base is agriculture, subsistence farming being the norm. The policy attributes this low economic and social development to previous wrong economic policies. The new policy emphasises decentralisation of decision making, so that the lowest possible government units, usually the Wereda Council, should carry out planning and implementation, including budgeting. This means that, as with other development activities, the Wereda Council has the mandate at wereda and community levels for planning, implementation, monitoring and evaluation of activities in environmental protection, sanitation, hygiene education, etc.

The Environmental Protection Authority of the Federal Democratic Republic of Ethiopia (FDRE), in collaboration with the Ministry of Finance and Economic Development (MoFED), issued an Environmental Policy in 1997. The policy, approved by the Council of Ministers, broadly describes the country's resource base and how it should be conserved. It also includes policy goals, objectives, guiding principles and sector-by-sector environmental issues and policy issues covering water supply and sanitation. The policy requires that all water conservation, development and management projects are subjected to an environmental impact assessment process. The policy also states that improved environmental sanitation should be the highest federal and regional priority for achieving sustainable development. It recommends an integrated approach to interventions, involving all stakeholders.

The Environmental Health Policy of the Ministry of Health recognises the lack of safe and adequate water and poor sanitation as the major health problems facing the nation.

The GoE has paid attention to gender issues in national strategic planning and programming for development, and identified new opportunities and approaches for gender-sensitive programming.

To establish equitable and gender-sensitive public policies, the National Policy on Women, formulated in 1993, aimed to create appropriate structures within government offices and institutions. In the new constitution of 1995, GoE revised its commitment to this policy. The objectives are to:

- facilitate conditions conducive to speeding up progress towards equality between men and women, so that women can participate in political, social, and economic life on equal terms with men, while ensuring respect for women's right to own property and their other human

rights and that they are not excluded from enjoying the fruits of their labour or from performing public functions including decision-making;

- facilitate conditions whereby rural women can access basic social services and facilitate ways and means of lightening their workload; and
- eliminate, step by step, prejudices as well as customary and other practices, that are based on the idea of male supremacy and enable women to hold public office and to participate in the decision making process at all levels.

Despite these policy aims, gender inequality is an extremely important factor contributing for the high intensity and prevalence of poverty in Ethiopia. It is difficult for women to exercise their right to own and use land and other productive resources. Women work for longer hours per day than do men; experience multiple deprivations such as low access to health care and treatment, education etc.. Violence and discrimination against women are still widespread.

The Sustainable Development and Poverty Reduction Programme (SDPRP) places a strong emphasis on the importance of gender equality for development and poverty reduction. The government has moved decisively to advance the agenda on gender dimensions of poverty in the past year, and a significant number of initiatives are underway, including preparation of a National Action Plan on Gender. This plan intends to provide an implementation instrument to mainstream gender into policies and programmes for more gender-equitable poverty reduction outcomes. The action plan aims to:

- mainstream and articulate gender concerns on broad policy processes including the SDPRP, MDGs, and budget processes;
- strengthen gender analysis and overall gender sensitivity of the SDPRP monitoring and evaluation system (including the core indicators and data collection systems); and
- assess the capacity of the Women's Affairs Office institutional structures and functioning, and identify entry points/activities for enhancing gender mainstreaming across government policies and programs.

The overall goal of the Water Resources Management Policy (WRMP) (1999) of Ethiopia is to enhance and promote national efforts towards the efficient, equitable and optimum utilisation of available water resources for sustainable socio-economic development. The policy highlights that water is a natural resource that has economic value, for which user fees are to be paid. The policy is based on the following key principles.

- Water is a natural endowment owned in common by all people.
- As far as conditions permit, every citizen has the right to access to sufficient water to satisfy basic human needs.
- Water is recognised as an economic and social good.
- Water resource development adopts rural-centred, decentralised, participatory approaches within an integrated framework.
- Water resource management should ensure social equity, economic efficiency, reliability of systems and sustainability.
- Water resources management should promote the participation of all stakeholders, including user communities, particularly women.

The WRMP recognises that the provision of water and sanitation services is inseparable and must be integrated at all levels into a sustainable and coherent framework. It recognises that water supply and sanitation systems are implemented at decentralised levels by appropriate bodies. The

policy calls for a collaborative and co-operative framework to develop sanitation systems and to define the responsibilities of different governmental bodies and other major stakeholders at all levels.

The Ministry of Water Resources (MoWR) has developed Ethiopian Water Sector Strategy (2001) that elaborates the WRMP and aims to provide implementation direction for the development of the water and sanitation sector. The strategy indicates that sanitation and hygiene education should be integrated into all planning undertaken by the drinking water supply sub-sector. The water supply and sanitation section includes directions for cost-sharing and recommends, among other things, that such plans should:

- subsidise capital costs to ensure social equity only for those communities that are unable to cover the cost of basic services themselves;
- establish financial resource allocation criteria to access for subsidies based on local socio-economic factors;
- implement phasing out mechanisms for such programmes, promoting instead self-reliance by communities;
- establish and implement cost-sharing arrangements to share the capital, O&M and capacity building costs between government, local communities, consumers, external support agencies and non-governmental organisations (NGOs);
- promote the "user pays" principle in accordance with user willingness and ability to pay the cost of the services and the socio-economic conditions of users;
- promote the development of site-specific water tariffs based on principles of financial, economic, and social equity;
- involve local communities in price setting to ensure that tariff structures are compatible with consumers' ability to pay, with a view to providing sustainable services at affordable prices; and
- set tariffs in rural areas with the aim of recovering O&M costs.

Some of these points seem slightly inconsistent but the main message is clear: rural communities should increasingly cover the costs of water supply, starting with O&M costs and extending to capital costs.

Phase III of the Amhara RWSEP is well placed in the context of Ethiopian policy environment. RWSEP has not only adopted and integrated relevant government policies into its operations; it has been very active in turning these policies into action, becoming a showcase for the Regional Government as well as other external supporters in the region and in the country. RWSEP has been particularly active and strong in supporting decentralisation to the lowest appropriate level, community empowerment, gender mainstreaming, raising awareness about environment and the use of a variety of information, education and communication methods. All these strengths are likely to make the achievements more sustainable.

The Amhara Regional Government has set a far more ambitious target for household latrine construction than has been set at federal level. It aims 100% coverage by 2007 from a level of 11% latrine coverage in RWSEP weredas in 2004, ten years after the programme was launched. This massive and rapid sanitation increase has full political support from the ANRS, which is a positive sign. However, such ambitious targets may put at risk the need for a demand-driven approach, quality assurance and sustainability.

The Ethiopian Water Policy has been provided with a legal backing. The GoE issued Proclamation No. 197/2000 in March 2000 and the Council of Ministers passed Regulation No. 115/2005 in March 2005, to implement the proclamation. Monitoring, evaluation and feedback regarding the implementation of the water policy have been weak. The policy has not yet effectively reached communities at grassroots level.

3.3. Institutional aspects

Robe-Melliya Water Supply Scheme

The Robe-Melliya Water Supply Scheme has evolved into a community-owned and community-managed scheme serving a population of about 70,000 in 13 villages, the town of Robe and two small towns. Every one has access to safe water; and broadly-speaking, it is considered a success as the system is sustainable. The foundation of a sustainable supply of water to both the rural and urban populations in the area is the active role played by the community in managing the scheme. Community management includes the formation of:

- Rural Water Board (RWB),
- Water Administration Office (WAO), and
- 17 WASH Committees (13 from rural villages and 4 kebeles from Robe town).

The Water Management Board (WMB) has overall responsibility for the entire scheme. It is essentially composed of individuals drawn from the rural villages around Robe. The majority of the staff in the WAO also come from the rural areas.

Three springs originate from the lands of these rural villages, and the pipeline mainly runs through their lands. The usual power of the town has been reversed as the rural water administration supplies water in bulk to the urban centres. It is unusual to see a marriage of two communities whose water uses are so divergent, with urban dwellers invariably using far more water per capita than rural households; and where a rapid expansion of the urban population could dominate rural villages.

The Water Bureau, WaterAid Ethiopia and Water Action provided external support to help start the Robe-Melliya Water Supply scheme and to assist in finding solutions for critical problems. Each seven-member water committee has four women and three men members and this gender composition of the committees has made a big difference.



Picture 5. Robe Melliya community while discussing on their WASH problems. Women take prominent participation in the WASH sector

Photo credit: WaterAid Ethiopia

Dalocha Water Supply Scheme

The Dalocha Water Supply Scheme is managed by a Board whose members are all women. Board members are elected from the water committees who run the 32 water points or water kiosks. The Water Managing Director is answerable to the Board, and has assistants to assist in day-to-day work.

The Board is registered by the Bureau of Regional Justice and has a legal status. To strengthen the Board's activities, a Tripartite Agreement has been signed by the Water Bureau, the Wereda Administration and Action Aid. The Bureau will provide skilled technicians and other support on a commercial basis as need arises, the wereda will provide land for infrastructures and buildings, and Action Aid will make spare parts available for an agreed number of years.

The Dalocha Water Scheme has some unique features, most notably that the whole scheme is run by women:

- all the board members are women,
- all the Water Committee members are women, and
- all the water sellers are women.

There are many reasons for why only women are involved in managing this scheme, including that women are the main carriers of water to households.

Previous water committees were made up of both men and women, but because of the cultural context, the management of the scheme had become a failure:

- in Dalocha Wereda, the people are predominantly Muslim,
- in Silte culture, a woman will not speak against what a man says.

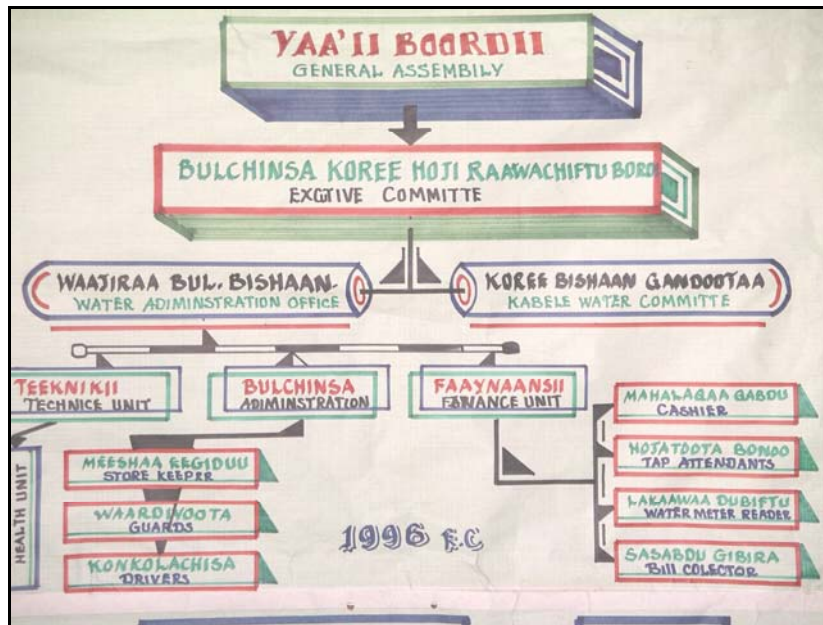
It was agreed that women should take over the management completely. They met the challenge and became successful. The Board hires male workers to serve as technicians, operators and guards, but men do not act in managerial positions.

All board and water committee members and employees of the water service are trained. Periodic refresher courses are given. Many illiterate women have been educated and become literate in order to work for the water scheme.

In addition to water committees, each peasant association (PA) appoints a Problem-Solving Committee to solve any problem related to water supply. Each Problem-Solving Committee has five members—the Kebele Chairman who also chairs the committee, the Kebele Justice Chairman who acts as secretary, a water committee member and two respected elders of the community. This committee is responsible for the safety of the water supply infrastructure, and has helped to deal with vandalism that was causing problems in the past.

Hitosa and Gonde-Iteya

Hitosa has a well established integrated rural and urban management system. The organisational structure comprises a General Assembly, a Water Management Board (WMB) and a Water Administration Office (WAO), each of which has clearly defined roles and responsibilities.



Picture 6. Organizational structure of Hitosa WASHCOMs

WASH Committees have been established in all communities, although some would benefit from greater support from the WMB and PA leadership. Women are represented in WASH committees and in WMB.

Gonde-Iteya has a WMB but lacks an independent WAO. The WASH Committees along with employed staff run the day-to-day activities of the water service in their respective areas.

At community level, all WASH committees have a higher proportion of women members, but in some communities they are not playing as active roles as do men. There is a need to raise gender awareness, to ensure that gender is always taken into account in project planning, implementation, monitoring and evaluation. The evaluation identified a number of areas where gender could be better taken into account. Examples include:

- consult women about the siting of tap stands;
- design and target hygiene promotion messages with women in mind;
- ensuring that training for village health communicators (VHCs) who are mostly women, and for community hygiene and sanitation promotion activities, fits with the timing of women's family and domestic responsibilities; and
- ensure that girls and boys have separate sanitation facilities in schools.

Rural Water Supply and Environmental Programme

Sectoral offices at region, zone and wereda levels implemented the RWSEP Phase II. At regional level, the Bureau of Finance and Economic Development (BoFED) took responsibility for RWSEP coordination as a sector-neutral bureau. At zonal level, the Water and Mines Resource Development Department (WMRDD) undertook coordination until June 2002. Thereafter, zonal level structures were decentralised to weredas and only monitoring activities were left with the zones. At wereda level the Office of Agriculture has coordinated the RWSEP, as the Water Office was not established at the wereda level during phase II.

The RWSEP has been a demand-driven, flexible and process-oriented rural development and capacity building programme. The approaches adopted by the programme as the core of its operations include:

- substantial participation at all levels,
- gender sensitivity,
- multi-sectoral programming, and
- flexible, process-oriented management.

Planning, decision-making and implementation processes have operated at kebele, wereda, zone and region levels. Implementation coordination was also decentralised and operated at all levels. While rural water supply is the "window" through which RWSEP connects with community partners, the community planning process has driven the implementation of various development activities at kebele and sub-kebele levels. These were supported and coordinated by wereda-based personnel, who turn to zone and region personnel for higher-level support as needed.

The Programme Facilitation Office (PFO) at regional level has provided management services for weredas and zones. Finnconsult, a Finnish consultant company, was approved to provide technical assistance to facilitate programme implementation in Amhara Region. Finnconsult employs eight advisors (six national, one international and one international junior officer). The Regional Government assigned a full-time Programme Manager as the Programme Coordinator's counterpart. PFO has also employed other support staff such as an administrator/accountant, a cashier-storekeeper, a secretary, drivers, a cleaner and guards. A Programme Director and a Programme Administrator have been employed in Finland for coordination and support.

The Board of the RWSEP is the highest decision-making body. The board is chaired alternately by BoFED and by a representative of the Finnish Ministry for Foreign Affairs. RWSEP addressed institutional capacity from the beginning with substantial capacity building initiatives at regional, zonal, wereda and community levels. The main responsibility for the programme rests with the Water Resources Development Bureau at regional level and Water Desks at wereda level. The Wereda Water Desks are responsible for facilitating communities to develop, implement and manage water points as well as co-ordinating Programme activities in their respective weredas.

In spite of extensive capacity building efforts, especially human resources development, institutional sustainability remains a concern. There is a very high turnover of staff and no mechanism to institutionalise the capacity of trained individuals even by modest overlap time between predecessor and successor. This is a serious problem, not only for RWSEP but also for efficient administration in general. It results in repeated investments in capacity building, delayed progress, inconsistency, inefficiency, etc. Another problem is the low commitment of some offices and bureaux, who regard RWSEP as an additional workload to their other line duties. Improvements are expected as programme related duties are increasingly incorporated into job descriptions and performance evaluation for relevant civil servants.

Decentralisation and civil service reform processes can also affect programme implementation. As an example, the establishment of financing pools at wereda level seriously slowed wereda disbursements during the first months of the 1997 Ethiopian fiscal year (EFY).

Another concern for institutional sustainability is the set-up within RWSEP. Responsibilities for activities, supervision and accountability are built on a number of committees and groups specific to the programme. This may partly explain the sometimes low commitment, as responsibilities

are largely collective rather than individual. Committees and groups are also temporary by nature, not an integral part of the government structure.

The capacity building of weredas has included substantial hardware support, most notably in terms of a car and motorcycles. Often the car is the only vehicle for official use in the whole wereda administration. Dependence of transportation provided by RWSEP is not a favourable factor for long-term sustainability.

3.4. Financial considerations

Hitosa and Gonde-Iteya

At community level, the water supply system is managed through WASH committees, whose members are 60% female and 40% male. The responsibilities of these committees include mobilising community cash and labour contributions, selecting trainees from the community to be tap attendants and VHCs, and overall management and sustainability of the system after project completion. Some WASH committees report that they receive little support from the WMB or the PA leadership.

The future role of WASH committees in financial management and sustainability is not clear and it would be useful to review their responsibilities, with related training and capacity building needs, and other mechanisms to ensure their ongoing motivation and commitment. Some WASH committees have been trained to carry out their management role, as recommended by the 1996 Hitosa evaluation, but, during this evaluation, committee members identified a need for additional training on management and financial issues.

Communities are willing to pay for maintenance and repairs and are aware that they are responsible for protecting water schemes. The system of reporting problems to the project office or WAO by WASH committees appears to work well. To reduce dependence on outside help for simple maintenance tasks, training for basic community level maintenance is planned.

The number of private connections and demand for private connections vary. The cost of private connections is unaffordable for most households, but the community could be consulted about potential mechanisms to spread payments. Several communities highlighted the need for additional tap stands. Some communities with 300 households in Hitosa and Gonde-Iteya have the same number of tap stands as communities with 800 households in Robe-Melliya. This is in part due to population growth and movement since the system was designed. Inadequate access, as measured by household distance from tap stands and queuing, is likely to have a negative impact on water consumption and hence on community health and hygiene as well as on WAO income.

In Gonde-Iteya and Hitosa, most communities were aware of the roles of the WMB and WAO, that they have representation on the WMB, and who is responsible for repairs, maintenance, collecting and banking money. The degree of understanding of financial aspects of the water supply system depends on the effectiveness of the WASH committee and of their communication with community members. In most villages, people were clear that the money they pay for water is used to cover the costs of WAO transport and salaries for tap attendants but had less idea about overall income and expenditure. People are generally aware that the money collected is banked and there is a high level of community trust in financial management by the project office and WAO. However, communities have no idea about the bank balance and do not appear to see

or discuss financial statements. The evaluation team was not able to obtain detailed information about community-level finances and it would be useful for the WAO to include analyses of community-specific income from water in their financial statements. Providing communities with access to this type of information would improve understanding and promote transparency.

Communities have contributed in cash and labour to the cost of the water supply. Most of them stated that they are willing to pay a higher tariff to ensure the sustainability of the system, provided that the needs of the poorest households are taken into account and the community is consulted and given reasonable justification for any increase. Careful assessment of demand is required since a tariff increase may lead to continuing low levels of consumption or even reduced consumption, with a negative effect both on hygiene and sanitation and on income from water sales.

There is limited understanding among WASH committees and community members about the design life of the water supply systems and of the need for future capital replacement, and its likely cost. Efforts are needed to raise awareness and to ensure that committees discuss this issue with communities.

Communities are able to identify those households who are unable to pay for water, mentioning the elderly, disabled people and women-headed households as being particularly vulnerable. Communities and WASH committees consulted during the evaluation were supportive of the need to assist these individuals and households, but at present, there is no policy or strategy to assist those who cannot afford to pay. The current 'subsidy' for latrines assists only focus group members, who are expected to encourage their neighbours to replicate their demonstration models. One of the constraints on latrine construction is affordability of materials, and there is no financing mechanism to assist poorer households. The potential to raise income from private connections to subsidise access to water for the poorest and to subsidise access to sanitation should be explored.

Water sales are the main source of income for WAOs. Existing capacity is underutilised and there is scope to increase income through higher consumption without increasing the tariff. Differential tariff rates are charged for public tap stands and private connections in Hitosa and Gonde Iteya. The rate of financial return from private connections is higher than from public tap stands, but relatively few community members can afford a private connection.

In communities with taps, tap meters function and are read monthly, billing is efficient, tap attendants collect and deposit cash efficiently, and communities have a high level of trust in financial management systems.

Communities have a strong sense of ownership of the water supply system, and most are willing to take financial responsibility for the system in future. Most community members can afford to pay the current tariff, although some stated that they would prefer a voucher system that allows them to take less water at a time.

Water consumption in rural communities is low and the reasons for this should be explored in more depth. Consumption also shows seasonal variation, resulting in irregular income flow for the Water Administration Office (WAO). Water vendors still operate in rural and urban areas during the dry season. The number of tap stands and tap attendants should be reviewed. Comparison of income and expenditure shows a surplus in both Hitosa and Gonde-Iteya. Salaries are the main

item of expenditure. However, expenditure does not include the full costs of operation and maintenance, depreciation costs (considered as a reserve for capital replacement) or an allowance for bad debts, and the accounting system should be revised to reflect these costs.

Rural Water Supply and Environmental Programme

Weredas included in the Rural Water Supply and Environmental Sanitation Programme (RWSEP), like other weredas in the Amhara Region, are poor. For the economic and financial sustainability of RWSEP activities, it is crucial to understand how weredas allocate their spending and how relevant communities are motivated to invest in their water supply. It came across very strong during the review that if communities are prepared to invest in their water supply, they feel a strong sense of ownership for their water schemes. Furthermore, if the communities are well trained in financial management, they will have a greater understanding of sustainable operation and maintenance arrangements. It was noted during the mission interviews that amounts collected for O&M from the households using water schemes varied widely. Among schemes visited, the typical amount collected for O&M was one birr per household per month (less than € 0.1). This amount is expected to be enough for O&M activities excluding re-investment. Whether the guard to protect the water points is paid in kind or in cash affects the monthly charge. Cross-subsidisation was taking place in most communities, who have been able to identify the most vulnerable and allow them to fetch water free of charge or to contribute in kind.

The Community Development Fund (CDF) approach, which started at the beginning of EFY 1996 in two RWSEP weredas, is deemed to be successful. RWSEP started the scheme by channelling the grant fund with the Amhara Credit and Saving Institution (ACSI), which has offices in every wereda of the region. People come together to identify their water or sanitation needs, prepare a project and apply to the Wereda CDF Board, which appraises the applications and approves the projects for funding. Before the application is approved, the applicant communities must show that they have started to deposit savings for the future operation and maintenance. This approach empowers communities, especially women, and promotes sustainability since it encourages a demand-driven approach and ensures responsibility for O&M from the start.

CDF stakeholders were involved in the practical development of the scheme with a CDF adviser in each wereda. In EFY 1997, three new weredas were included into the scheme and an additional adviser was contracted. The RWSEP plan was to introduce CDF in the remaining seven programme weredas in EFY 1998. Based on interviews of various CDF stakeholders, the following points were noted.

- The CDF approach increased the sense of ownership of water points among user groups.
- Promotion by kebele development officers is crucial for increasing community understanding of the CDF approach.
- WASH committees need training in CDF before water points are established.
- Communities have become more familiar with dealing with banks.
- CDF demands a vast amount of paper work from water desks.
- The presence of CDF advisors was important during the establishment phase.
- Operation times, guarding arrangements and the sizes of user contributions all vary between CDF water points.
- Communities have been able to identify the “poorest of the poor” who are not excluded from the water supply, but given an opportunity to provide a contribution in labour instead of cash, or in some cases, to fetch water free of charge.

- The number of the “poorest of the poor” recognised by communities appears to be between 5% and 15% of households and consists mainly of disabled or elderly people.
- User groups understand the need for O&M budgeting.
- Community initiation and management remains strong and communities have implemented the programme cost-efficiently, reducing the cost of construction of the previous approach.
- The Phase III programme document sets a minimum level of community contribution initially at 15% of total investment (in cash and kind) to be raised to 20% by the end of Phase III.
- Some communities have already contributed 40–50% under the CDF approach, suggesting that decentralising responsibilities to communities allows a higher output to be achieved with the same budget from the government and/or donor.

3.5. Social equity

Rural Water Supply and Environmental Programme

Early in the life of RWSEP, a baseline survey explicitly illustrated the socio-economic aspects to be addressed by the programme. Indeed, the sustainability of RWSEP largely depends on the extent to which it manages to deal with social and cultural factors. The level of community participation in community management and the degree of sense of ownership, gender balance, and leadership capacity in local groups, are determining factors in achieving the socio-cultural aspects of the programme. Hence the design of RWSEP III is deeply based on an understanding of the existing socio-cultural factors and the experiences of Phase I and Phase II.

Educators, gender groups, women, school children and opinion leaders are all main actors in encouraging and promoting attitudinal change about hygiene practices, especially to remove the need for women to defecate in the open field during early mornings, dark evenings or at night. They also work to change cultural perceptions of early marriage, and to increase women's involvement in public gatherings and meetings. The introduction of Phase III laid a basis to ensure sustainability, effective use and replicability, through institutionalising RWSEP at regional, zonal, wereda, kebele, sub-kebele and locality levels.

Gender equity and equality are important elements in the water and sanitation sector. Gender issues apply to both women and men and need attention in all development. Phase III of RWSEP explicitly incorporates gender-balanced involvement of men and women as a key strategy. Attention has been paid to making processes and structures gender sensitive. RWSEP has promoted gender-sensitive structures from the top (regional) level to the grass roots at kebele and sub-kebele levels. The programme has addressed practical gender needs and responsibilities in the design of water and sanitation facilities. It promotes access to social amenities such as water, latrines and fuel-saving stoves, and to information about health, sanitation, hygiene education and the environment.



Picture 7. Community members in Benishangul-Gumuz discussing about gender training and about how to achieve the MDG targets for the WASH sector

Photo credit: WaterAid Ethiopia

Capacity building for government staff has also had a gender focus. Women professionals are encouraged to support each other through networking. RWSEP has contributed to mainstreaming and institutionalising gender issues, promoting equity and encouraging changes in traditional harmful practices, such as too early marriage. There is still a need to replicate these approaches effectively elsewhere, and to reach disadvantaged and unserved groups that the programme has not yet reached.

Separate latrines have been constructed for male and female students as well as male and female teachers at the schools. Domestic household latrines have especially benefited women. Women have also benefited from easy access to water points, and from ability to access vegetable seeds, clothes washing basins, garbage collection pits, and fuel effective and efficient stoves that are locally appropriate.

Hitosa and Gonde-Iteya

The evaluation team identified gender as an issue that needs to be addressed at all levels. The majority of Water Aid Ethiopia and Water Action staff are men, as are project staff in Hitosa and Gonde Iteya. It also appears that men are more likely to chair WMB and WAO. Participants at a workshop were mostly men. WaterAid is aware of this issue, but greater efforts could be made to ensure a more equal gender balance in staffing. This would help to ensure greater interaction with, and participation of, women in communities.

At community level, all WASH committees have a higher proportion of women members. However, in some communities they are not as active as the men. In one community, people

reported that the committee was elected by heads of households, most of whom are men, and that women had not been involved in the selection.

WaterAid Ethiopia has organised gender awareness training for staff and partner organisations, but has received requests for further training. It will be important to ensure that future training addresses practical aspects of gender in relation to project planning, implementation, monitoring and evaluation, since the evaluation identified a number of areas where gender could have been better taken into account. Some of these include the following.

- **Siting of water tap stands:** A number of women reported that they had not been consulted about siting of tap stands. Project staff reported that the community was consulted, but it is not clear how much effort was made to ensure that a representative sample of women was included.
- **Hygiene and sanitation promotion:** Baseline data about hygiene and sanitation awareness and behaviour does not appear to have been disaggregated by gender. It is not clear that promotion interventions have been specifically designed for, or targeted at women, or indeed specifically for men. Since women are responsible for domestic and family hygiene and for teaching good habits to children, more effort should be made to find out what women think and do and what hygiene and sanitation promotion approaches will be most appropriate. The attitude and behaviour of adult men also needs to be specifically addressed, as they are often decision makers and an influence on children, particularly on boys.
- **VHC training:** VHCs are mostly women, and those interviewed during the evaluation reported that attending the 20 day initial training course is difficult because of family and domestic responsibilities. One VHC reported that her husband had attended in her place. Training of a shorter duration in or near the community would be more appropriate.
- **Community hygiene and sanitation promotion:** Problems for women with the timing of promotion activities in communities were also noted. Communities reported that films had sometimes been shown in the evening, a time when women could not attend because of their domestic and family responsibilities.
- **School sanitation:** Teachers reported that because of lack of separate sanitation facilities, girls were forced to resort to nearby fields. Sanitation projects facilities in schools should take more account of the need for separate facilities and privacy for girls.

Plan-Ethiopia Programme

Gender issues were discussed in consultation with Plan's stakeholders. Women were well represented in health/WASH committees established at each kebele/village, and it appears that Plan's programme has adhered to its principles in this regard.

However, the principle has not successfully been translated into meeting the needs of women. When women were asked if they were satisfied with their existing WASH system, 60% in Addis Ababa said yes, 31% in Lalibela-rural area said yes; 0% were satisfied in Lalibela town. Such results undermine the programme principles. Dissatisfaction was high in Lalibela town because the water supply was severely restricted. This issue is being addressed.

Community participation in projects for sanitary facilities was not fully effective. Poorly managed communal VIP latrines were seen during a field visit in Addis Ababa. Although health/WASH committees are established in each kebele, there is a lesser sense of ownership in the community and low levels of knowledge, awareness and practice. This suggests that Plan's programme principle has not been satisfactorily achieved. However, solid waste collection by youth and by women's groups for a minimal fee, and its use in agriculture, is functioning effectively.

Equity of access

Another important form of equity is finding ways for the poorest people in a community to access water. The section on Financial Considerations contains some information about how communities have addressed this issue within programmes, by allowing the poorest of the poor to fetch water without charge or to contribute in kind.

3.6. Environmental aspects

Ethiopian Social Rehabilitation and Development Fund Project

Ethiopian Social Rehabilitation and Development Fund (ESRDF) is an independent government institution working towards given objectives, with its own duties, responsibilities and mandates.



Picture 8. One of the swampy water points in North Gondar. Where there is little access to safe water, jars are filled with algae bush.

Photo credit: WaterAid Ethiopia

The ESRDF Project consists of hand-dug wells, spring developments, shallow wells, etc in five regions. The areas around some springs have become swampy and unsightly due to overflowing water. Several water points have similar problems. Cattle troughs are connected directly to the collection chambers and water from the overflow passes alongside the cattle troughs to adjacent plots of land used for irrigation. The overflow is also used by a large number of people for domestic consumption and for washing clothes without any care given for disposal of sewage. The water points are usually crowded with large number of donkeys and people, making the areas around the water points swampy and unsightly.

Rural Water Supply and Environmental Programme

Past programmes and projects have caused damage to the environment and to people's health, due to the fact that programme planning and implementation and significant decisions were mainly based on short-term economic and technical feasibility. The most effective and economic way of maintaining environmental quality in development is to anticipate, eliminate, or mitigate problems as early as possible. For this reason, the introduction of an environmental protection component into RWSEP and the use of Environmental Impact Assessment (EIA) as a tool in the planning and decision-making process is of paramount importance. An embryonic environmental assessment is included in the field appraisal of water points but it could also take into account the water point catchment.

RWSEP also addresses micro-environmental problems by assisting communities in their environmental schemes, particularly for the reduction and prevention of deforestation and erosion, and to maintain biodiversity.

Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources. In this respect, RWSEP is in the forefront of rural water supply projects and programmes in the country as the CDF approach extends much of the financial responsibility to users and helps them to be cost-conscious.

The abstraction of groundwater from hand pump wells is not likely to affect aquifers. Local over-exploitation could occur where protected springs with gravity outlets are used carelessly by larger communities without closing taps, or where a large volume of water is used for irrigation. The main consequence of over-exploitation would be borne by the users, especially during the dry season. The most likely environmental problem is erosion due to spillage. This issue has been seriously addressed in the programme.

3.7. Monitoring and learning

Rural Water Supply and Environmental Programme

In RWSEP, monitoring and evaluation is part of a larger Participatory Information System (PIS) which has been designed to ensure a constant and regular flow of information between and among participants at all levels. The PIS emphasises two-way dialogue and experience sharing among all partners. The foundation of the monitoring and evaluation (M&E) process is the preparation of four-year community plans at sub-kebele level by the community. This enables M&E functions to be undertaken by the community, with responsibility for M&E reporting centred at this level.

Evaluation at the kebele level is conducted through quarterly community meetings organised by the Kebele Development Committee (KDC). A Strengths/Weaknesses/Opportunities/Limitations (SWOL) report is prepared by the Kebele Programme Coordinators (KPC). The report is submitted to the RWSEP Facilitating Office, where reports are compiled and sent back to participating communities for discussion, exchange of views and experience sharing. The discussion allows the communities to find out about the progress of other communities, what problems are being faced and how these are being solved. The decisions made at quarterly meetings define activities for the following quarter. This is one of a number of tools used by the programme to encourage and support information sharing among participants.

Monitoring reports are prepared quarterly by the (KPC) and submitted to the Wereda Programme Coordinator (WPC). The WPC compiles the reports and they are discussed by the Wereda Coordinating Committee (WCC). The wereda level report is approved quarterly by the WCC, and is submitted to both the zone and the RWSEP Facilitation Office. Twice a year a meeting is held with weredas at Zonal level to discuss programme performance. A meeting is also held at regional level twice a year to discuss programme performances.

At kebele level, the system allows a constant check on progress. At wereda level, the system provided a means of tracking to be sure that work plans are being implemented as expected. The system gives early warning of potential problems and identifies community level solutions. At zonal and regional levels the system helps to plan higher-level support and to track work plan progress. Some of the lessons learnt include the following.

- Communities, schools and clinics each need a separate standard water point design.
- Expensive school VIP latrines have not met all their expected uses.
- Gender awareness is a continuous process and cannot be achieved through one-time training.
- Intensive follow-up and supervision are needed to obtain gender disaggregated data from weredas and kebeles.
- Simple, low cost technology allows independent local level construction.

- Children are effective in achieving results through attitude change campaigns, making a positive impact on sanitation coverage and improving hygiene practices.
- Making sanitation and hygiene promotion a responsibility for all sectors helps to increase sanitation coverage.
- WASH Committees function better when members are elected democratically by water point users.
- An assumption that the Government would take over implementation of the RWSEP has not materialised.
- Frequent changes in the structure of government have affected capacity building in the programme.
- A quota system to ensure that women are well represented on water and sanitation committees has benefited women as individuals and the communities as a whole.

Hitosa and Gonde-Iteya Water Supply Schemes

An evaluation of hygiene and sanitation and of the financial sustainability of large-scale gravity schemes in Hitosa and Gonde-Iteya was carried out in 2000. The following lessons were learnt.

- Social, economic and other factors should be considered before a project is implemented.
- The availability of alternate sources has an impact on people's willingness to use a new clean water supply, and especially to buy water.
- People's ability to pay should be considered.
- Levels of education and previous family habits influence people's decisions on whether to use a new water supply, with the possibility of lower than expected consumption and a failure to recover costs.
- Demand for clean water and sanitation should come from the beneficiaries. If it does not, then implementers should take steps to stimulate demand by promoting the benefits of a new system, before installation.
- The distance of the tap from the area where potential users live is an important factor in people's decisions to use alternative unprotected sources. This is especially significant where a settlement is very scattered.

Tsegede-Armachio Water Supply, Sanitation and Hygiene Promotion Project

The Project covers Tseged Wereda and Armachio Wereda in North Gonder zone, ANRS. The objectives of the project were creating awareness of environmental sanitation, water related diseases, provision of clean, safe and adequate water supply and empowering the communities to run the schemes. From the evaluation the following lessons were learnt.

- The local administration and community need to be involved with planning and implementation.
- Financial planning took second place to physical activity and suffered as a result.
- Important implementation factors such as access roads, the geology of the area and rainy periods, were not seriously considered during planning.
- Capacity building of the implementing partners is required at wereda and community levels.
- Weak coordination between the project management and local administration impacted on the project performance.
- A lack of proper monitoring by Water Aid meant that corrective measures were not taken in time.

Kale Hiwot Church Integrated Water and Sanitation Programme

The Kale Hiwot Church (KHC) has carried out integrated Water and Sanitation Programme in Amhara, Oromia and the Southern Regions. UNESCO and the Institute for Water Education conducted a mid-term review and came up with the following lessons.

Strong points

- Users generally expressed high satisfaction with the water supply at all visited projects.
- Hand pumps and gravity schemes have proved durable.
- Local Community Volunteers are trained by KHC to continue training others after the initial construction phase. The continued construction of pit or SanPlat latrines is an indicator of the effectiveness of this training.
- The drilling programme meets its targets and appears to be one of the most effective in Ethiopia for the number of boreholes it produces.
- KHC has good standing with communities and government, due to its water programme.
- KHC uses ferro-cement storage tanks which have performed well for several years and are considered unique in the country.

Weak points

- Some targets have not been met.
- The amount of water available to the users is much lower than originally proposed.
- The distance travelled by users is more than the 500 meters proposed by KHC.
- The water programme has not regularly monitored the quality of water.
- The planned integration between water, sanitation and hygiene education has not been implemented successfully.
- Hygiene and sanitation efforts are insignificant compared with the time and effort spent on construction, and not properly integrated with the construction programme.
- Gravity schemes have not been sufficiently replicated at local level due to an inadequate transfer of technical knowledge and a failure to empower communities on this issue.
- The involvement of user communities in managing the preparation and implementation of surface water and ground water (drilling) projects is very low.

UNICEF Programme

The UNICEF 2002-2006 programme is its fifth country programme in Ethiopia. The Water and Environmental Sanitation (WES) and Hygiene Education are the major components, covering five regions - Afar, Somali, Benishangul-Gumuz, Gambela and the Southern Region.

The WES mid-term review noted:

- lack of staff at higher levels in government ministries and UNICEF;
- gaps at regional level between community based planning, implementation and reporting, with slow delivery of supplies and cash transfers;
- bringing in water by tanker in an emergency is vital, yet very expensive;
- decentralisation dissipated skilled staff; devolved functions are carried out by unqualified staff;
- although latrines are seen as technologically successful at a subsidised cost, the relationship between sanitation and health is not sufficiently understood;
- UNICEF has an exceptionally high preparedness for emergency response, especially in meeting emergency water needs;

- UNICEF assumed the leading role in taskforce development and in enhancing the development of water supplies in different regions;
- UNICEF technical staff employed for emergencies are still giving significant technical support to long-term development;
- WES, MoWR and World Bank cooperate well;
- the cost of drilling can be reduced;
- increased awareness due to the UNICEF programme and a high level of commitment by communities has led to a high level of latrine construction.



Picture 9. Women and children in Arbe Shesho area of Shebedino wereda fetching from one of the hand pumps

Plan Ethiopia Programme

The Child Health Development Programme run by the Plan-Ethiopia programme units at Addis Ababa and Lalibela aims to improve the access of children, families and communities to high quality and efficient community based primary health care services, clean water and basic sanitation. The lessons listed here are those that emerged in relation to water supply and sanitation.

Target communities and stakeholders regard as “noble contributions” Plan's interventions on health, education, drinking water, VIP latrines and solid waste disposal skips, soil and water conservation, construction of access roads, training and support for capacity building. Communities hold Plan in high regard, although failures, such as wrongly capped springs at rural Lalibela, created some discontent.

Pre-conditions for success and sustainability of WASH programmes include:

- proper planning and design of programmes by skilled consultants;
- implementation by skilled contractors;
- proper inspection and monitoring of programs by Plan Ethiopia;
- empowerment of the community; and
- continuing commitment from partners in all programme phases.

Plan's programmes on WASH are effective in achieving programme objectives target indicators. However, promotion of hygiene education in communities is vital, as hygiene practices are still poor. In particular, containers used by community members to carry and store water are not hygienic, and personal hygiene practices are poor.

Plan's Country Programme Outline (CPO) for the programme was prepared at national level without breaking down physical and financial planning for each programme area. Amendments to the original CPO have not been sufficiently thought through for each fiscal year. Some of Plan's data on CPO is not exhaustive or detailed enough. Although Plan's programme monitoring reports are informative, they need to be improved by the inclusion of more qualitative data and feedback from communities and stakeholders.

Plan is recognised by communities, public institutions and government authorities as a vital development partner. If Plan continues to build on its good experiences and to take corrective measures where drawbacks are noted, it will remain a key development partner in meeting the MDGs and in supporting national efforts towards poverty reduction and sustainable development.

Plan Ethiopia should give due considerations to failures in Programme Units (PU), especially in rural Lalibela, where unprofessional capping destroyed a natural spring, denying the community access to water. Most of the hand-dug wells at Lalibela-rural also failed because they have little or no yield. These failures de-motivated users and forfeited community confidence in Plan's capacity to undertaking PU projects.

Training for water committee members on water use management and technical issues has been effectively conducted in each target PA of the Lalibela Programme Unit. However, there is still limited capacity on the part of water committees to conduct major maintenance. At the time of the field visit, there was no qualified staff at the Wereda Water Desk.

Plan Ethiopia needs to take remedial measures where communal VIP latrines in Addis Ababa are not being correctly used. Families with an interest in making this work hygienically and an understanding of what needs to be done should be given a door key and made responsible for operation and maintenance.



Picture 10. People fetching water from unsafe source

In rural Lalibela, where other basic needs remain unmet, there is low demand for sanitation and hygiene education. However, the majority of communicable diseases are caused by poor hygiene practices and a lack of sanitation, and these services need to be promoted. Plan Ethiopia has also faced external challenges, notably:

- low KAP level of the community;
- lack of continued commitment from the community and concerned government partners throughout programme cycle;
- wereda/sub-city sector offices regard NGO activities as a sideline or an optional task;
- frequent meetings in wereda/sub-city sector offices and high staff turnover;
- market fluctuations in price and availability of spare parts for water supply schemes (pipes, fittings, etc.); and
- lack of qualified local water contractors, lack of water resources and difficult topography in the Lalibela area.

3.8. Technological principles

Rural Water Supply and Environmental Programme

RWSEP has promoted a variety of technologies. In water supply the options have been a protected spring and a hand pump well with an Afridev pump as a standard. These proven technologies are also promoted by the government. At the end of Phase II, 96% of water points were reported to be functional. In water supply, the most critical issue for sustainability is the seasonal variation of the yield from wells, and siting is often a compromise between access and yield. This has resulted in wells being installed on slopes where the catchment area is limited and there is a seasonal fluctuation. Users have been forced to restrict water use, reportedly to below

10 litres per capita per day. Community awareness of factors related to well siting needs further attention. Where risk of seasonal fluctuation is high, well construction should probably be scheduled at the end of the dry season.

Questions have been raised about whether RWSEP should expand to other technologies, such as boreholes and simple piped schemes for small rural towns – applying a CDF approach – and providing dewatering pumps to ease hand digging. A proposal has been put forward that one borehole/ piped scheme should be implemented as a pilot project during Phase III applying CDF approach. The question of dewatering pumps is more complex. In one wereda, dewatering pumps have been rented from farmers when needed at a very reasonable cost, but pumps are not so easily available in other weredas. From the sustainability point of view, dewatering pumps should be used only when needed and the cost of dewatering should be born by the users. Another question raised is the ability of communities to contribute to construction cost and to collect adequate revenues for O&M and re-investment. In terms of technology, this concern could be addressed by innovative use of lower cost technologies. The programme document suggests that lower cost alternatives may need to be developed in collaboration between communities and RSWEF in order to reduce the cash contribution by using more labour-intensive alternatives. For example, well lining with concrete rings could be replaced by stone lining where stones are available.

In sanitation the RWSEP has promoted pit latrine varying from simple dug pits equipped with wooden slab and a simple superstructure to permanent ventilated improved pit latrines (VIP) at schools and clinics. Phase III also introduced ECOSAN latrines, which represent higher cost and more advanced technology. The variety of options provides affordable latrines to be financed and constructed by households. The lowest cost options may not have a long life; for example termites may attack wooden slabs. The most critical issue is to ensure the safety of latrines by preventing pit and slab collapse.

Ethiopian Social Rehabilitation and Development Fund

Community-based projects financed by ESRDF focus on rural water supply and sanitation. These projects promote the use of low-cost and simply maintained technology with special emphasis on hand-dug wells, spring developments and shallow drilled wells. ESRDF has financed 9 model projects in 5 Regions - Amhara, Benishangul-Gumuz, Southern Region, Harari and Dire Dawa.

A VLOM type of O&M system is in place, which is easily maintainable by trained caretakers, while major maintenance is done by zonal Water Office and the Wereda Water Desk. The Water Committee is responsible for the overall management of the scheme. Water supply systems that use motorised distribution are more complex and the Regional Bureau assists the community with maintenance work.

UNICEF

The Water Supply Component of the UNICEF Programme is predominantly drilling for ground water development, springs and hand dug wells. Other appropriate technologies have not been given sufficient consideration where ground water sources are not viable. These include rain water harvesting, solar energy, wind pumps, solar water disinfection, infiltration gallery systems, radial wells, sub-surface dams and sand filtration.

Appropriate technologies where systems are constructed with locally available materials, labour and skills are key factors for affordability, replicability and sustainability. One issue to consider is

how to improve existing communities' water sources. For example, where a community has developed hand-dug wells, opting to drill new wells requires good justification.

Sanitation systems such as trench latrines could be considered for emergency areas. Trench latrines are quick to construct, can accommodate huge numbers of people, and are replicable and expandable. Experience has also revealed that in the regular programme, people prefer pit latrines rather than VIP latrines in most programme areas. This calls for plans to be adjusted.

4. Conclusions and recommendations

This section summarises some of the most important lessons that have emerged from the meta-evaluation of documents from different programmes and projects.

Universal coverage and sustainability

- Sustainable water supply and sanitation schemes require effective community-based management.
- Active participation of communities is required in identifying the need for a project, site selection, planning, construction, O&M and management of water supply schemes and sanitary facilities.
- WASH Committees need a majority of women members, who should lead the water committee.
- Incentives are important to motivate WASH committee members, contact women, community participation promoters, and others.
- There is a need to prepare guidelines and manuals relating to project identification, siting, planning, design, construction, O&M, management, accounting & auditing, and gender mainstreaming.
- Communities need to prioritise their requirements for a project.
- Project preparation should include close community involvement in identifying needs and in participatory planning.

Enabling environment

- Legally recognised governance mechanisms, including community byelaws and scheme rules, should be created or adapted with the full involvement of communities.
- Awareness and training programmes are needed to enable community members to understand their rights and obligations.

Institutional aspects

- Schemes for water supply, sanitation and hygiene education need to be integrated.
- Effective coordination is necessary among stakeholders—including government bodies, NGOs, donors and communities.
- Close working relationships are needed between Wereda Administration, Wereda Water Desk, Wereda Health Desk, WASH Committees, Zonal Water Office, Zonal Health Offices, Water Bureaux and Health Bureaux.
- Adequate training and refresher training are needed for WASH committee members, artisans, contact women, community participation promoters, pump attendants, area mechanics, maintenance technicians, accounting clerks, ...etc.

- Forms and formats for monitoring need to be prepared to run and manage water supply and sanitation schemes effectively.
- Mechanisms need to be created for networking, sharing experiences and for discussing advocacy initiatives.
- Strong coordination mechanisms and institutional linkages are needed.
- Well-established institutional structures are needed when laying out systems, developing capacity and awareness in communities, and promoting hygiene and sanitation.
- Community awareness needs to be raised about safe water, sanitation, water related diseases and hygiene education.
- Sanitation and hygiene education should become part of the school curricula and school hygiene clubs should be strengthened.
- Procedures need to be developed to prevent water supply and sanitation schemes from and curative maintenance from breakdown and for maintenance.
- Wherever possible, the private sector should be encouraged to become involved in water supply and sanitation schemes.
- To encourage local artisans and traders to become involved as service providers, training should be given where necessary and artisans' and traders' associations established.
- Demonstration projects for household latrines and private SanPlat slab production centres should be established.

Financial considerations

- The financial status of communities can be increased through credit systems, in particular by credit schemes that target women or by channelling the grant funds through credit institutions for the communities for actual implementation.

Social-equity principles

- Communities need to be empowered to manage WSS services and to actively participate in decision-making.
- A detailed consideration of cultural, religious and socio-economic factors within communities should be carried out during planning.
- Gender issues need to be mainstreamed into all aspects of WSS projects: preparation, implementation, O&M and management.

Environmental issues

- Water schemes need protection against contamination, pollution and damage.
- Water schemes and water points should include proper drainage.
- The contact women approach can help people to understand the need to ensure a clean water supply chain from tap-to-mouth, and so improve environmental and personal hygiene.
- Environmental protection of the water point catchment area such as gully development and forestation should be also integrated into the water supply and sanitation projects.
- School sanitation clubs should take the responsibility of the environmental protection awareness creation as well.

Monitoring and learning

- Strong and timely monitoring and evaluation of progress should involve all project stakeholders.

- Monitoring and evaluation procedures should be developed and implemented.
- Monitoring and evaluation improves the effectiveness of schemes.

Technological options

- Choosing appropriate technology involves considering its technical, environmental, institutional, religious and cultural suitability, and its ‘community friendliness’.

5. Suggestions for implementation as Action Research

This section suggests activities that can be put in place as action research, arising out of the lessons learned. These activities can be implemented simultaneously or in sequence. Although they are presented as short bullet points, almost as instructions, they are intended for discussion and as reminders before a project is launched or a new phase is planned.

- Launch a campaign to raise awareness about the need for clean water, sanitation and hygiene education, and the link with health, at the Water and Health Bureaux, the zonal Water and Health Offices, the Wereda Administration, and in local communities.
- Identify community members to be involved in the project/programme.
- Establish an institutional setup and an organisational structure.
- Form WASH committees with a majority of women members.
- Establish links between communities, Wereda Administration, Wereda Water Desk; Wereda Health Desk, zonal Water and Health Offices, Water and Health Bureaux.
- Prepare training materials, guidelines, manuals, etc.
- Identify community members to be trained as artisans, contact women, pump attendants, WASH committee members, mechanics, etc.
- Plan WSS schemes.
- Identify water supply and sanitation schemes and select sites with the active participation of communities, particularly women.
- Design WSS schemes.
- Implement WSS schemes.
- Prepare forms and formats to run and manage the WSS schemes.
- Prepare essential manuals.
- Encourage communities to own and manage WSS schemes.



About Plan

Plan is an international, child-centred humanitarian development organisation without religious, political or governmental affiliation. Child sponsorship is the basic foundation of the organisation.

Plan's Vision

Plan's Vision is of a world in which all children realize their full potential in societies that respect people's rights and dignity.

Plan's Mission

Plan strives to achieve lasting improvements in the quality of life of deprived children in developing countries through a process that unites people across cultures and adds meaning and value to their lives by:

- enabling deprived children, their families and their communities to meet their basic needs and to increase their ability to participate in and benefit from their societies
- building relationships to increase understanding and unity among people of different cultures and countries
- promoting the rights and interests of the world's children



Program principles

- Child-centeredness
- Institutional learning
- Integration
- Gender equity
- Environmental sustainability
- Empowerment & sustainability
- Co-operation

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